PVS Pathway

PVS Gap Analysis Mission Report

Swaziland

November 2015

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Dr Patrick Bastiaensen, Dr Julia Punderson

WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future

PVS Gap Analysis report

Kingdom of Swaziland

3 -12 November 2015

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TABLE OF CONTENTS

LIST OF ACRONYMS, ABBREVIATIONS AND/OR SPECIAL TERMS

AAHI	Assistant Animal Health Inspectors
AHI	Animal Health Inspectors
AI	Avian Influenza
AU-IBAR	African Union Inter-African Bureau of Animal Resources
bTB	Bovine tuberculosis
CAHI	Chief Animal Health Inspector
CE	Continuing Education
CG	Cordon Guards
CVL	Central Veterinary Laboratory
DTA	Dip Tank Attendant
DTC	Dip Tanks Committees
DVLS	Department of Veterinary and Livestock Services
EDF	European Development Fund
EU	European Union
FTE	Full-time equivalent
FMD	Foot and Mouth Disease
FS	Field Services (Division within VSD)
HR	Human resources
MHI	Meat Hygiene Inspector
MITI	Meat Inspection Training Institute (Botswana)
MMC	Meat Marketing Commission
MoH	Ministry of Health
NAMBoard	National Agricultural Marketing Board
ND	Newcastle Disease
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)
PPR	Peste des Petits Ruminants
PRSAP	Poverty Reduction Strategy and Action Plan
RSA	Republic of South Africa
RVO	Regional Veterinary Officer
SACU	Southern African Customs Union
SADC	Southern African Development Community
SAHI	Senior Animal Health Inspector

SILAB	Laboratory Information System (Italian abbreviation)
SLITS	Swaziland Livestock Identification and Traceability System
SMI	Swaziland Meat Industry
SNTC	Swaziland National Trust Commission
SPP	Swaziland Poultry Products
SPS	Sanitary and Phyto-Sanitary (agreement)
SRA	Swaziland Revenue Authority
SVO	Senior Veterinary Officer
TB	Tuberculosis
TBD	Tick-borne disease
VA	Veterinary Assistant
VEU	Veterinary Epidemiology Unit
VFTC	Veterinary and Farmer Training Centre
VPH	Veterinary Public Health
VPHU	Veterinary Public Health Unit
VS	Veterinary Services
VSD	Veterinary Services Division (VS)
VSB	Veterinary Statutory Body
VCS	Veterinary Council of Swaziland
VLU	Veterinary Livestock Unit
WTO	World Trade Organization

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EXECUTIVE SUMMARY

The OIE supports and assists its Members to improve their governance mechanisms by strengthening their capacities in line with OIE international standards. The OIE PVS Pathway is an internationally recognised system of measurement and evaluation to help countries diagnose their deficiencies, propose solutions and reach their strategic initiatives.

The first step of this Pathway is the PVS Evaluation, an exercise aimed at assessing the level of compliance with international standards on the quality of Veterinary Services (Chapter 3 of the OIE Terrestrial Animal Health Code). The present PVS Gap Analysis is the second step, and its objective is to facilitate the definition of the Veterinary Services' priorities and strategic actions for the next five years in terms of its compliance with OIE intergovernmental standards, suitably adapted to overarching national goals, and to estimate an indicative cost of the systems' strengthening.

Following a request to the OIE from its Government, and based on the outcomes of the PVS Evaluation done in May 2015, a PVS Gap Analysis mission was conducted in Swaziland from 3 to 12 November 2015 by a team of independent OIE certified experts: Dr Francisco D'Alessio as team leader and Dr Patrick Bastiaensen and Dr Julia Punderson as technical experts.

Overall priorities of the country in terms of livestock development, animal health, veterinary public health and the organisational structure and management of veterinary services, were identified, based primarily on the priorities upheld in national policy documents such as the National Development Plan 2014 – 2017 or the National Development Strategy towards 2022 (both Ministry of Economic Planning and Development) :

- *Policy on livestock development and trade*
  - *To promote commercial indigenous chicken broiler and egg production*
  - *To develop and improve the national beef cattle herd,*
  - *To promote livestock marketing in general and establish a* Meat Marketing Commission *(MMC) in the long-term to take over livestock marketing responsibilities,*
  - *Intensify research into and promotion of the production of drought resistant (…) livestock,*
  - *Improve research and extension services in order to enhance food production, (…), fisheries and aquaculture, chicken, piggery and other small livestock production,*
  - *Promote production of crops and livestock for domestic and international markets by both small and large scale farmers.*
- *Technical priorities in Veterinary Public Health*
  - *to provide quality, efficient, effective, affordable and accessible basic health services to the whole population by 2015 and to combat malaria, TB and other diseases by 2010 and (…) to improve environmental health,*
  - *Design appropriate strategies to deal with emerging health problems,*
  - *Implementation of the VPH Act, i.e. regulations, residue testing, imports (single window) and expansion of inspection to all primary production establishments.*
- *Technical priorities in Animal Health*
  - *To ensure compliance with local and international animal health standards, including compliance of legislation with the new Constitution,*
  - *To activate appropriately targeted rapid response to disease outbreaks,*
  - *To collect, collate and analyse data for the generation and dissemination of epidemiological information and early warning,*

  - *To conduct public awareness activities to invoke stakeholder collaboration and participation in animal health programmes, and improve capacity of farmers on disease outbreaks and response methods.*
- *Policy on organisational structure and management of the Veterinary Services*
  - *Procurement of relevant tools and kits to conduct the necessary test and diagnostics,*
  - *Improve living/housing and transport conditions of Veterinary Assistants,*
  - *Expansion of the VS mandate to include wildlife surveillance and the surveillance of poultry diseases and ensure that corresponding expert staff is trained or recruited,*
  - *Improving the efficiency of delivery systems for meat inspection, the poultry sectors and wildlife surveillance within the current human resources framework.*

In general terms, the PVS Evaluation conducted in Swaziland in May 2015 showed that the *Veterinary Services Department* (VSD) of Swaziland has achieved a good level of compliance with international standards, and provides good quality of services across the whole territory of the country. They have also successfully addressed a number of animal disease challenges over the past decades including *foot-and-mouth disease* (FMD) and endemic tick borne diseases (babesiosis, anaplasmosis, erhlichiosis/heartwater), and has gained international recognition for these achievements, such as the official recognition by the OIE as freedom from FMD and *peste des petits ruminants* (PPR). In consequence, no major changes are proposed in this PVS Gap Analysis, instead, specific improvements have been targeted to enhance the quality of some programmes or to extend them to other topics, species or regions. The passage of the Veterinary Public Health Act (17/2013) represents a major new responsibility for the VSD, and one of the biggest challenges to be faced in the upcoming years.

In brief, the plan for strengthening the Veterinary Services of Swaziland over the next five years can be summarised in the following points:

- ***Trade***

  The present strategy for border control and inspection is considered adequate to control the risk that is associated with imported animals, products and materials. Efficiency and effectiveness could be enhanced by developing an electronic centralised database to improve the exchange of information between the *border inspection posts* (BIPs) and the central level, as well as with the importers and exporters. The system should support issuing of import permits and certificates, and could potentially support electronic certification. This computerised system should be developed in close cooperation with the *Swaziland Revenue Authority* (SRA) *Customs and Excise Department* to allow for a single unified system to be implemented at entry points (eg., 'single window').

  The *Department of Veterinary and Livestock Services* (DVLS) will continue to actively cooperate with the private sector to support the export of products of animal origin by providing the technical leadership and certification required by the importing countries. New export opportunities such as honey (regionally and to the European Union) or poultry and beef (to countries in the Middle East) have been identified by industry; the DVLS will engage in establishing the necessary agreements with the different countries' authorities to make this possible.

  The *Swaziland Livestock Identification and Traceability System* (SLITS) has proven to be an effective system for identification of cattle. The DVLS foresees extending the use of the SLITS to sheep and goats in the upcoming five years. Also, efficiency of the data entry should be improved by providing mobile devices to allow on-site data entry and access.

- ***Veterinary public health***

Currently ante- and post-mortem inspection is performed by the VSD only at the *Swaziland Meat Industries* (SMI) export beef abattoir and processing plant in Matsapha. Health and environment inspectors from the Ministry of Health (MoH) and local governments currently conduct inspection in the local abattoirs and other meat-rendering facilities in the rest of the country, with no national standard or unified procedures.

The new Veterinary Public Health Act or VPH Act provides the VSD with a broad mandate to assume all control activities in the domain of VPH, with inspection and control of food of animal origin, including poultry and dairy products. The Act applies to the primary production of unprocessed and processed products of animal origin intended for human consumption in the national marketplace as well as all imported products. The new Act represents a unique opportunity for Swaziland to implement a consistent national standard on food safety to provide consumers with higher quality and safer food, in compliance with the relevant international standards (OIE, Codex). DVLS controls and inspections in the VPH domain will also provide valuable information for surveillance of animal disease and zoonosis, as well as animal identification and traceability.

The VSD has the technical competence to take over this new responsibility; however, this will require the development of new regulations and procedures, and the engagement and support of the private sector and other governmental agencies. This could be done with the support of a national expert and international expert, to assist the VSD in drafting regulations and to develop the classification system for food business operators as well as the definition of safety and quality requirements. This new responsibility also represents a major challenge in terms of technical, human, physical and financial resources to be mobilised.

The strategy is for the DVLS to provide specialised training and assign three senior meat inspectors to lead this process within the VPH Division of the VSD. There is as of yet no defined strategy to fill the other positions required for the VSD to undertake inspection throughout the country. To undertake these new tasks it is estimated that 6.5 full-time veterinarians and 22 full-time veterinary para-professionals will be required. Considering the limitations of hiring new staff, a possibility would be to delegate these activities to current staff from the MoH and local governments through a formal accreditation process. If this delegation-route is taken, appropriate regulations and procedures will be needed to ensure that the DVLS maintains an adequate chain of command.

The VSD could play a more active role in order to control the retail and use of veterinary medicines. The inspection of marketing points (retail) is part of the new VSD responsibility; for the first time, VPH inspectors will be tasked to enforce existing legislation (including the different categories of drug registration). Additionally, prudent use of antimicrobial agents will be included as a key topic among the Veterinary Assistants (VAs) extension with farmers.

The above significant changes envisaged in the VPH domain will require extensive consultation with stakeholders and other governmental entities to develop a cohesive system for the effective implementation of the new VPH Act with rational use of the human, physical and financial resources.

- ***Animal health***

Swaziland has strong and effective animal disease surveillance and control programmes under the sound leadership of the VSD with good coordination with the private sector and efficient implementation of activities. The biggest challenge faced by the animal health programmes has been the lack of financial resources that often curtails disease control efforts or prevents implementation of new programmes.

The VSD maintains an effective field network, and the analyses conducted during this mission showed that it is well suited to cover the national territory and provides excellent contact of veterinary para-professionals with animals and farmers while assuring a good degree of veterinary supervision and intervention/support when needed.

Efforts will be made to improve surveillance and suspicion reporting; specific activities were identified that could be conducted to enhance the sensitivity of the passive surveillance system.

A new approach will be developed to cover the surveillance of diseases in wildlife; DVLS can analyse a variety of available options to find the most cost-effective mechanism to implement a specific active surveillance programme for this population.

Existing animal disease control programmes and emergency response/preparedness plans will be evaluated by the VSD to ensure they are effectively adapted to the current sanitary situation of the country and the region. Special attention should be given to the existing control programmes for bovine brucellosis and tuberculosis to ensure more effective results. The new VPH responsibilities provide VSD with the opportunity to develop a comprehensive programme linking the findings in slaughterhouses (bTB) and the dairy industry (brucellosis) with the control measures applied in the field. The VSD should develop strong cooperative mechanisms with the private sector and the (public enterprise) *Swaziland Dairy Board* (SDB) to provide compensation and incentives to support testing and slaughter of positive animals.

Regular visits from the *Veterinary Epidemiology Unit* (VEU) to the *Regional Veterinary Offices* (RVOs) will be programmed and simulation exercises will be conducted to maintain awareness of regional and other relevant field staff of the emergency preparedness plans. PPR was identified by the VSD as a potential threat due to the evolution of the disease in the region; consequently, a formal risk assessment will be conducted and the specific surveillance programme will be strengthened and supported by a specific new contingency plan.

At present, the VSD has sufficient technical capacities within its staff to undertake these activities. Additionally, the VSD will implement a specialised training plan to further develop the expertise within its veterinary staff to support disease control and monitoring in poultry (extensive and commercial) and bees at internationally recognised centres outside Swaziland.

Swaziland currently has several opportunities to incorporate OIE principles and specific animal welfare standards (Title 6 of the OIE Terrestrial Animal Health Code) within the context of developing new regulations to implement the VPH Act (e.g. welfare of animals during transport and slaughter), also the predominance of extensive farming facilitates the compliance with those standards on animal welfare within production systems.

- ***Veterinary laboratory diagnosis***

The main strategy, and in consequence, activities, revolve around the operations of the country's national reference laboratory, called the *Central Veterinary Laboratory* (CVL), as well as other laboratories, such as the future food safety laboratory (currently operating from the SMI premises) and foreign laboratories, mainly the South African *Onderstepoort Veterinary Institute* (ARC-OVI).

An increase in laboratory requirements will be generated by the extension of new meat and food inspection activities, i.e. as a result of the enactment of the VPH Act, the strengthened animal disease surveillance, and especially the renewed emphasis on the control of brucellosis (and tuberculosis) in dairy and beef cattle.

Specific activities should be conducted to promote a more proactive role of field services in diagnosis and sample submissions, as providing more and better quality samples is essential for the expected improvement of disease control and surveillance programmes.

The projection of the VSD is that the number of analyses will increase by more than 50% from the current volume as a consequence of the enhanced programmes.

The provision of adequate funding for reagents, consumables, and for appropriate functioning, maintenance, and eventually replacement of equipment will be required in order to achieve the expected level of compliance of the national veterinary infrastructures with the international standards and their suitability to the national needs. Continuing education and keeping up to date the specialised skills required for the laboratory staff is also critical.

The CVL will engage in a quality assurance policy establishing a formal quality management system and seek ISO certification when possible. Additionally, a new *laboratory information management system* (LIMS) should be introduced to improve the efficiency of the operation of the laboratory.

- ***General organisation of the Veterinary Services***

The DVLS does not expect major changes for the upcoming 5 years in the management policy or structure of the VSD, nor in the way services are delivered in the field. The Veterinary Services of Swaziland have an efficient and effective hierarchical organisation from central through to field level that allows for adequate implementation of the official programmes throughout the country. The VSD is well staffed with competent and committed professionals, who work within a clear operational framework and under a strong direct chain of command from national to field level.

Nevertheless, several strategies and specific activities have been considered in this PVS Gap Analysis to strengthen the management, baseline operations and regulation of the Veterinary Services.

Internal coordination will be strengthened by increased provisions for operational funding and for investments in new facilities and equipment, to be allocated to the different technical programmes.

Management of operations and resources should be improved by upgrading the paper-based reporting and management system and progressively shift to a fully computerised system and database. The DVLS projects a complete shift that would integrate the different areas under its mandate.

One of the most important strategies envisaged by the DVLS to enable the VSD to cope with the technical requirements of the ambitious targets it has set itself for the different technical areas over the upcoming five years is to develop an effective training plan to improve the skills and competencies of the staff.

The DVLS will continue with its current policy of supporting the government financing the initial training 2 veterinary students per year in foreign veterinary schools.

- ***Interaction with interested parties***

The DVLS has the proven ability for effective external coordination in regular activities with the smallholder farmers and with the beef exporting industry, and especially in times of emergencies. This kind of coordination will be key for the success of the new programmes included in this PVS Gap Analysis for the next five years. The implementation of the VPH Act will not be possible without an active interaction and coordination with the MoH and local government, as well as with any other authorities involved in the different value chains.

In light of the envisaged developments for the next five years, communication will be a key tool to engage producers, industry, the public, politicians, community leaders, and others in the implementation of the new programmes, the success of which will certainly depend on their engagement and support.

At present, there are limited opportunities for VSD to meet with many sectors of the public, aside of the *Dip Tank Committees* (DTC) which serve as conduits to cattle and goat owners/herders. These activities will be maintained but VSD will also develop a consultation programme with increased focus on coordination and collaboration across different sectors and agencies.

The DVSL has a sound track record as an active member of OIE, *Codex Alimentarius*, the Southern African Development Community (SADC), the WTO SPS Committee, the African Union (AU-IBAR), the Southern African Customs Union (SACU) and is well represented at regional and international meetings. The VSD will continue to actively engage in these international forums. Also, the DVLS will promote an active role for the VSD in the promotion and negotiation process for accession to new export markets, such as exporting honey to the European Union, or poultry and beef to countries in the Middle East. For this, international technical missions will be conducted to establish direct contact with the other countries' competent authorities.

- ***Legislation***

Obviously, most of the improvements projected during this PVS Gap Analysis for the next five years will require the review or development of legislation and regulations.

The VSD has the technical capability to conduct these modifications with the support of the *Ministry of Agriculture* (MoA). Nevertheless, taking into account the major efforts that would be required to implement the VPH Act, i.e. the full design of the new food safety system, and the drafting and adoption of the required regulations and procedures, the VSD will request the support of external experts, both national and international.

Also, the revision of the Veterinary Surgeons Act (8/1997) will be undertaken to extend the mandate of the *Veterinary Council of Swaziland* (VCS) to also regulate veterinary para-professionals.

The PVS Gap Analysis mission culminates with the definition of an indicative cost to reach the desired Level of Advancement towards improved compliance of the Veterinary Services with OIE intergovernmental standards

For Swaziland, the overall resources and the estimated global costs for the 5-year upgrading plan for the VSD is just above USD 50 million and includes both activities that are currently carried out and new improvements. The annual budget is estimated at USD 9.5 million, which means an increase of 35% compared with the budget implemented in 2014, which was USD 7 million. It should be noted that the cost of the VS estimated by the PVS Gap Analysis comprises all costs of VS activities, and takes into account all improvements discussed, but it does not discuss, nor suggest the origin of the funds. For example, it includes some items that are currently not considered as part of the VSD budget, such as the scholarships for studies abroad or the acquisition of vehicles and other types of capital investments.

The animal health pillar concentrates 55 % of the costs, both annual and exceptional, which is logical as it includes the whole VSD field services and related field operations. The VPH Pillar, where the major changes are foreseen due to the implementation of the new VPH Act, would still represent less than 10% of the budget.

The total staff requirement is estimated at 738, the majority being employed in the animal health field network, and in the maintenance of fences. Analyses conducted for the different chapters have shown that present staff numbers are in general appropriate and there is no imperative need to increase the staff numbers. This is in line with the views of the DVLS, and the findings of the 2015 OIE PVS Evaluation.

The operational cost is estimated at USD 7.4 million including USD 5 million for staff salaries (67% of the operational cost) and USD 2.5 million for 'consumables' (32 % of the operational cost). Salaries are the main cost for the VSD, they represent 50 % of the overall budget.

Generally speaking, the existing physical resources of the VSD are more than adequate and are sufficient for the VSD's needs. Although no major modification of the existing resources is foreseen, this PVS Gap Analysis includes the value of existing resources, and its maintenance costs. The total estimated cost of the physical resources is USD 2 million per year for the 5-year period, plus an exceptional (once-off) investment of USD 3.2 million.

A large proportion of the investments estimated for buildings relate to staff housing. Indeed, taking due care of official staff in remote areas of the country such as border posts, cordon camps or field offices, is critical for any VS to assure adequate contact with the animal population to prevent the incursion of diseases, to conduct disease surveillance and to be able to promptly react to any contingency. To achieve this in the case of Swaziland, it is critical for the VSD to be able to assign staff to these remote locations, and hence, providing adequate housing is crucial.

Projected material investments for this 5-year project is directed mainly to the maintenance of the existing set-up of fences (12%), the provision of means of transport (22%) and the construction, maintenance, and renewal of buildings (46 %).

In the case of Swaziland, the non-material investments don't have a very significant impact on the PVS Gap Analysis' budget, representing only 5% of the required capital investments, but it nonetheless includes some critical items for the projected strategies and activities such as initial training of veterinarians and paraprofessionals, and (post-graduate) specialised training.

Swaziland has maintained a high-level of technical capacity in their veterinary services, and consequently the existing staff would be able to handle most of the technical developments. In this sense, a very small investment would be required for specially pinpointed external consultancies (less than 1% of investments).

The projected investments are completed by a "special fund" of USD 500,000 that will be directed to the development of an integrated VSD database and information system.

The project laid down in this report seems achievable in terms of the technical means available and the resources estimated to be necessary, and would lead to strengthened Veterinary Services, able to provide an environment for improved veterinary public health, increased animal production with improved food security, and the necessary public – sector support to the development of additional export markets.

METHODOLOGY OF THE PVS GAP ANALYSIS MISSION

A PVS Gap Analysis mission facilitates the definition of a country's Veterinary Services' objectives in terms of compliance with OIE quality standards, suitably adapted to national constraints and priorities. The country PVS Gap Analysis report includes an indicative annual budget and one exceptional budget (for exceptional investments), when relevant, consolidated to propose an indicative 5 year budget for the Veterinary Services. In practice, this means:

- Defining, together with the Veterinary Services, and in accordance with national priorities and constraints, the expected result (i.e. level of advancement defined in the OIE PVS tool) at the end of the five-year period for the critical competencies of the OIE PVS tool which are relevant to the national context;
- Determining the activities to be carried out in order to achieve the expected results for the critical competencies of the OIE PVS Tool which are relevant to the national context of the country;
- Determining, with the help of information, data or interviews, the tasks and human, physical and financial resources required to implement these activities to enable the Veterinary Services to function appropriately.

I The PVS Gap Analysis process

I.1 Background information

Following a request to the OIE from its government, an evaluation of the Veterinary Services of Swaziland using the OIE PVS Tool for the evaluation of Performance of Veterinary Services, based on OIE international standards on quality of Veterinary Services[1], was conducted in November 2015 by a team of independent OIE certified experts.

In order to adequately understand the objectives of the country, as well as the figures presented in the PVS Gap Analysis report, it is important to have access to some key information. Part of this information comes from the country OIE PVS Evaluation report; other parts come from other sources.

I.1.A Country details

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.

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 (1,000 – 2,000 mm per 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 per 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 mmper 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.

[1] Section 3 of the OIE Terrestrial Animal Health Code: http://www.oie.int/index.php?id=169&L=0&htmfile=chapitre_1.3.1.htm

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, which supplement the domestically earned income.

Land use in Swaziland is divided into two categories: Title 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 for which access by individuals is assigned by the local community.

Geographic features

Climatic and/or agro-ecological zones	Rainfall (mm/year)
Highveld (west)	1,000-2,000
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

Source: FAO; World Bank; PVS 2015

Demographic data

Human population		Livestock households/farms	
Total number	1,419,623	Total number	
Average density / km2	82	% intensive	< 1%
% of urban	20%	% agro-pastoral (mixed)	20%
% of rural	80%	% extensive	80%

Source: FAO; World Bank; PVS 2015

Current livestock census data

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	143 606	5 287	105 503	12 112	213 1373	3 2105	23 199
TOTAL	**620 613**	**16 074**	**363 222**	**39 808**	**2 546 343**	**10 277**	**96 377**

Source: PVS 2015

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**

Source: PVS 2015

Economic data

National GDP	3.5 billion USD (2014)
National budget	1.17 billion USD (2014)
Livestock GDP	61.2 million USD (2014)
Agriculture and Livestock Budget	39.5 million USD (2014)
Annual budget of the Veterinary Services	7 million USD (2015)*

Source: DVSL 2015

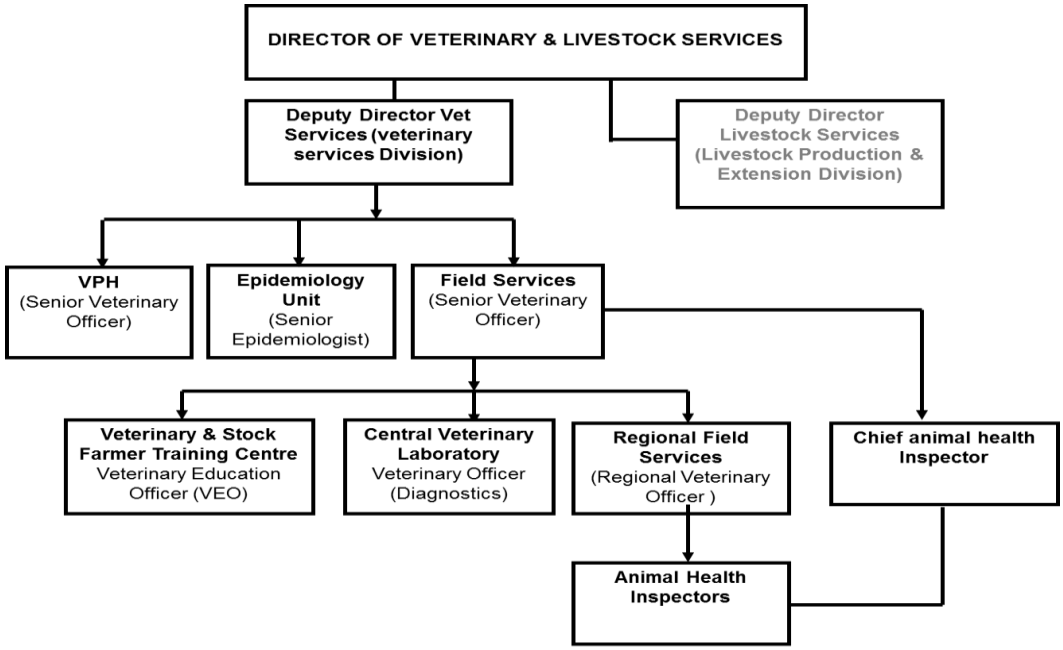
I.1.B Current organisation of the Veterinary Services

The 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 also serves as the Chief Veterinary Officer (CVO) and OIE Delegate. The DVLS is assisted by two Deputies, one for each Division. The Deputy Director of Veterinary Services (DDVS) is in-charge of the VSD.

The VSD (see figure below) 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 (SVO). The primary legal authority comes from the Animal Disease Act 7 of 1965.

ORGANOGRAMME OF THE VS



I.1.C Description of entities or sites related to Veterinary Services activities

Field Services (FS)

The largest Division within the VSD is *Field Services* (FS); it includes the four Regional Veterinary Services, the *Central Veterinary Laboratory* (CVL) and the *Veterinary Farmer Training Centre* (VFTC). FS at central level is headed by the *Senior Veterinary Officer* (SVO) and the *Chief Animal Health Inspector* (CAHI).

The field network is based on 4 Regional Veterinary Offices staffed by the Regional Veterinary Officers and Senior Animal Health Technicians who coordinate and supervise the 28 sub-regions. Field activities are conducted by a large cadre of *Senior Animal Health Inspectors* (SAHI), *Animal Health Inspectors* (AHI), *Assistant Animal Health Inspectors* (AAHI), *Veterinary Assistants* (VA), *Cordon Inspectors* (CI) and *Cordon Guards* (CG).

Field activities are primarily conducted by VAs working under the AHIs at the sub regional level; each VA is responsible for 4 diptank areas and for all activities and for all species within that geographic area. The diptank area is the smallest epidemiologic unit centred on the physical diptank structure 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 once or twice a month under supervision of the VAs. Private farms may have their own diptank and dairy farmers are responsible for their acaracide regimen but are still subject to periodic inspection by VSD personnel. Dipping is compulsory under the Animal Disease Act 7/1965.

VAs are assisted by locally selected non-professional *Dip Tank Attendants* (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 by the community and help with all VSD activity at their local diptank.

Central Veterinary Laboratory (CVL)

The *Central Veterinary Laboratory* (CVL), under the authority of the FS, serves as the national (reference) laboratory and is available to the public for testing of samples provided directly. The CVL relies on laboratories in the Republic of South Africa (RSA) and the United Kingdom (UK) to perform a variety of analyses and to support the requirements for the export of beef from the approved export abattoir. CVL is also responsible for oversight of the two government quarantine facilities.

Veterinary & Farmer Training Centre (VFTC)

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

VFTC has the capacity to train up to 40 students but limit the number of students to reflect the vacancies to be filled within the DVLS.

Veterinary Epidemiology Unit (VEU)

The *Veterinary Epidemiology Unit* (VEU) provides scientific support for the Field Services 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 are compiled in monthly and annual reports.

Veterinary Public Health Unit (VPHU)

The *Veterinary Public Health Unit* (VPHU) is responsible for the new Veterinary Public Health Act (17/2013). The Act expanded the mandate of the VSD to include foods of animal origin (e.g. fresh meat, poultry meat, meat products, game meat, dairy products, 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 in commercial distribution. VSD needs to develop regulations, procedures and programmes to implement the Act. 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* (MoH) and municipal (city and municipal councils) that provided public health inspectors under the Public Health Act (5/1965). Prior to this VPH Act the only role played by VSD was the control, inspection and certification of food safety in export abattoirs.

List of entities and sites	Terminology or names used in the country	Number of sites
GEOGRAPHICAL ZONES OF THE COUNTRY		
Climatic zones	*Highveld; Low veld, Middle level, Lubombo Plateau*	4
ADMINISTRATIVE ORGANISATION OF THE COUNTRY		
1st administrative level	*National*	1
2nd administrative level	*Regional*	4
3rd administrative level	*Sub-region*	28
4th administrative level	*Dip tank*	650
Urban entities	City	1
VETERINARY SERVICES ORGANISATION AND STRUCTURE		
Central (Federal/National) VS	Veterinary Services Division (VSD)	1
Internal division of the central VS	FS, VPH, VEU	3
1st level of the VS	Region	4
2nd level of the VS	Sub-region	28
3rd level of the VS	Dip tank	650
Veterinary organisations (VSB, unions…)	VCS	1
FIELD ANIMAL HEALTH NETWORK		
Private veterinary sector		5
Other sites (dip tank, crush pen….)	Dip tank	650
VETERINARY MEDICINES & BIOLOGICALS		
Production sector		0
Import and wholesale sector		10
Retail sector		50
VETERINARY LABORATORIES		
National labs	CVL, MHL	2
Regional and local labs		0
Associated, accredited and other labs	Poultry industry laboratory	1
ANIMAL AND ANIMAL PRODUCTS MOVEMENT CONTROL		
Bordering countries	RSA, Mozambique	2
Airports		2
Main terrestrial border posts	Ngwenya/Oshoek, Mahamba,Lavumisa.	3
Minor terrestrial border posts	Bulembu, Gege, Lundzi, Mananga, Mhlumeni, Matsam, Nsalitshe, Sandlane	8
Quarantine stations for import	Mpisi, Maphiveni	2
Internal check points	'Green-line'	3
Live animal markets	N/A	
Zones, compartments, export quarantines	Lubombo Protenction Zone	1
PUBLIC HEALTH INSPECTION OF ANIMALS AND ANIMAL PRODUCTS		
Export slaughterhouse	SMI, SPP	2
National market slaughterhouses	N/A	
Local market slaughterhouse	N/A	
Slaughter areas/slabs/points	N/A	
On farm or butcher's slaughtering sites	N/A	
Processing sites (milk, meat, eggs, etc)	N/A	
Retail outlets (butcheries)		166
Feed mills	N/A	
TRAINING AND RESEARCH ORGANISATIONS		
Veterinary university		0
Veterinary paraprofessional schools	VFTC	1
Veterinary research organisations		0
STAKEHOLDERS' ORGANISATIONS		
Agricultural Chamber / organisation	National Agricultural Union, Dairy Development Board, NAM Board	2
National livestock farmers organisations	Small scale Fatteners Association "Power Team"	1
Local (livestock) farmers organisations	N/A	
Other stakeholder organisations	N/A	
Consumers organisations	Consumer Union	1

I.1.D Summary results of the OIE PVS evaluation

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 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 conducted in September 2007.

The stability and development of many countries depends on the performance of their agricultural sector. The VS plays a vital role by enhancing national food security, protecting livestock from disease, facilitating market access for livestock and their products and protecting people from foodborne and other zoonoses. To meet these challenges and opportunities, it is essential that the VS are of high quality, appropriately resourced, technically competent and independent, and work closely with stakeholders and promote access to markets.

For national VS to achieve their objectives and to support compliance with OIE international standards, the OIE has developed the Performance of Veterinary Services (PVS) Pathway. The PVS Pathway is designed to assist the VS establish their current level of performance and identify gaps in their ability to comply with OIE international standards. The PVS Pathway comprises an “Evaluation”, “Gap Analysis” and on-going support for national development based on the PVS findings.

PVS evaluations assess the VS capabilities at national level using internationally agreed criteria set out in the OIE Terrestrial Animal Health Code. The PVS Pathway works closely with stakeholders, including the private sector, to develop a shared vision and establish priorities and strategic initiatives geared towards meeting national animal health, veterinary public health and trade objectives.

The 2015 evaluation began with meetings with the Minister for Agriculture, Mr Moses Vilakati, the Director of Veterinary and Livestock Services, 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 during which the overall findings of the evaluation were discussed.

- *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 (TBD) (e.g. 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.

- *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 available 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 (VA) 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. Performance evaluations of VSD personnel are done regularly.

Currently there is no requirement for CE. Access to on-going training is limited although generally 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.

There is good external coordination with other competent authorities at the borders and with respect to wildlife services (e.g. 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 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 transportation resources for field activities; this impacts the general performance of routine activities as well as 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 (GNVS 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. No funds for compensation are included in emergency or eradication programmes.

No regular funding for 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.

- *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 South Africa. 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 (QA) 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 and supporting procedures 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 technical skills. 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 (Legal Notice 6/2012) 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 and controls 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.

- *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.

➢ *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.

Summary of Key OIE PVS Report Recommendations

➢ *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* (SDB) 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 *Swaziland 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.

- *Technical authority and capability*

A PVS Gap Analysis mission was recommended 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 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.

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 ear tags for all cattle supported by computerised records but is the only computerised record system available within the VSD. 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 VPH Act.

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

With a view to the implementation of the VPH Act 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.

- *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 broader understanding and support of 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 *Swaziland Dairy Board* (SDB) 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 Development 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.

- *Access to markets*

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.

I.2 Methodology

I.2.A Organisation of the mission

Following a request to the OIE from its government, a PVS Gap Analysis mission based on the outcomes of the OIE PVS report was conducted from 3 to 12 November 2015 by a team of independent OIE certified experts: Dr Francisco D'Alessio as team leader and Dr Patrick Bastiaensen and Dr Julia Punderson as technical experts.

The mission was conducted as a series of thematic sessions whereby relevant staff and external stakeholders were invited to participate in the discussions on which progress could be envisaged in the space of 5 years and which strategies and activities would be required to achieve this. Following an initial session dealing with the overall priorities of the country in terms of livestock development, animal health, veterinary public health and the Veterinary Services as a public institution, 5 more thematic sessions were conducted. These correspond to the 5 thematic “pillars” of the Gap Analysis tool. The 5 pillars regroup the relevant PVS Critical Competencies by topics, in a specific logical order for the preparation of the PVS Gap Analysis report as follows: *Trade, Animal Health, Veterinary Public Health, Veterinary Laboratories,* and *Management and Regulatory Services.*

During this Mission, the DVLS and the VSD staff supported by the PVS Gap Analysis Team undertook the following steps:

a. identification of the Veterinary Services priorities

b. definition of a strategy for each of the PVS Gap Analysis Pillars

c. definition of the Desired Level of Advancement towards improved compliance with international standards for each of the PVS Critical Competencies.

d. description of the activities to be implemented over the next 5 years in order to reach their Desired Level of Advancement for each of the 41 Critical Competencies of the PVS Gap Analysis.

e. estimation of the cost of the corresponding human and physical resources required to implement the identified activities (workload).

The PVS Gap Analysis mission culminates with this report, which not only crystallises the objectives and priorities of the Veterinary Services of Swaziland in terms of compliance with OIE intergovernmental standards, but also identifies an indicative cost to reach their desired Level of Advancement towards improved compliance.

The two principal tools used for the PVS Gap Analysis mission are the Critical Competency Cards, used to organise and facilitate the discussion on Country priorities on the basis of the outcome of the PVS Evaluation, and the Cost Estimation Cards, used to facilitate the interim calculations for the preparation an indicative 5 year budget for the Veterinary Services of the country. All specific documents are annexed to this report.

I.2.B Estimation of resources needed

A logical approach to estimating the budget for strengthening the Veterinary Services is used. This approach is as follows:

The Veterinary Services should have the financial resources sufficient to carry out essential tasks and duties, and be able to adapt to changes in health status. The budget for field activities for government staff and officially delegated private veterinarians must allow for planned activities, but should also support a flexible approach necessary to allow immediate responses when these are required. The amount of expenditure for each activity should be adjusted according to the national constraints, human resources (number and public/private split), priorities and trends in animal health and changes of animal health status.

The budget is developed for specific activities so that the desired level of advancement may be achieved as determined by the objectives, situation and characteristics of the country. The necessary tasks and resources required are identified and budgeted. Priorities are set out to provide assistance with the actual allocation of funds - these will need to be finalised by the Veterinary Services during operational planning.

In some chapters, the specific additional resources required are described in more detail: for instance in the pillars on veterinary public health or animal health, using specific computing “tools”

In other chapters, the additional resources required may appear very low as most costs are covered elsewhere: for instance in terms of general management, or regulatory services.

The overall budget analysis (Chapter VI) synthesises the different budget lines: on-going investment, salaries, repairs and maintenance, operations, etc. This budget analysis demonstrates the effectiveness of the PVS Gap Analysis, its sustainability and also allows incorporating the programme into the quality control policy of the Veterinary Services.

Notes

The international currency used in this report for the estimation of costs and the budget is the USD. In Swaziland, the write-off rate of buildings/facilities, transport and equipment has been determined as such:

- 25 years for construction of building
- 5 years for renovation of building
- 5 years for saloon/passenger cars and four-wheel drives (4x4),
- 3 years for motorbikes/motorcycles
- 10 years for cold chain equipment
- 2 years for telecommunication and computer equipment sets

The figures proposed there are the most common ones. However, depending on the situation prevailing in the country, they may be modified by the experts.

UNIT COST SPREAD SHEET

Unit costs (estimates)

1- Currencies				
Currency used for this report (USD or EUR)			**Currency** USD	**Conversion rate (exchange rate)** Number of Emalangeni per USD
National currency			Emalangeni	13.6
2- Material investments				
			Supply cost / unit	**Years of amortisation**
			Local currency	**International currency**
Buildings	*Unit of surface (m²) or (ft²)*		m2	
	Maintenance cost per m2		456	34
	Renovation cost per m2		6840	503
	Building cost per m2		9120	671
Transport (purchasing cost)				
	Motorbikes		50,000	3,676
	Cars		260,000	19,118
	4x4 vehicles		430,000	31,618
Office equipment set				
	Staff office equipment set (desk, chair, telephone, computer and standard peripherals)		42,000	3,088
	Other specific office equipment set		7,000	515
3- Non material expenditure				
Training				
Initial training (per student)				
	Veterinarians (DVM, BVS) total training cost		680,000	50,000
	Veterinary paraprofessionals total training cost		54,000	3,971
Specialised training (short courses, certificates, Masters degree, PhD, etc.)				
	Accommodation per month		20,400	1,500
	Training fees per month		20,400	1,500
	Travel per month		10,200	750
	Cost of specialised training per month		51,000	3,750
Continuing education (daily cost per person on a basis of a group of 15 people)				
	Per diem 15 participants		450	30
	Room rental and educational tools per day		3,000	221
	Daily cost for a national expert consultant		2,000	147
	Daily cost per trainee		363	27
National expertise (cost per day)				
	Daily fees		2,000	147
	Per diem			
	Total cost per day and per expert		2,000	147
International expertise (cost per week)				
	Daily fees		13,600	1,000
	Per Diem			
	Average cost of an international flight		25,000	1,838
	Total cost per week		120,200	8,838
4- Salaries (salaries, bonuses and social benefits)				
	Veterinarians		390,000	28,676
	Other university degree		250,000	18,382
	Veterinary para-professionals		110,000	8,088
	Support staff		40,000	2,941
5- Consumable resources				
Travel allowances				
	Per diem for technical staff		30	2
	Per diem for drivers		30	2
	Per diem for technical staff travelling abroad		4,760	350
	Average cost of an international flight		25,000	1,838
	Travel and per diem for one week abroad		**58,320**	**4,288**
Transport costs				Unit
	Price of fuel (average between petrol, diesel or mixt) per unit		11.4	0.8 Lt
	Average number of km/miles per year			Unit
	Average distance per year by motorbike in km		3,600	km
	Average distance per year by car in km		25,000	km
	Average distance per year by 4x4 in km		25,000	km
			Fuel consumption per 100 km/miles	*Running cost (fuel + maintenance + insurance = consumption x 2)*
	Km or mileage cost (motorbike)		3	0.05
	Km or mileage cost (car)		7	0.12
	Km or mileage cost (4x4 vehicle)		12	0.20
6- National economic indicators				
GDP				**Sources**
	National GDP		***47,694,610,213***	3,506,956,633
	Agriculture GDP		*2,813,000,000*	206,838,235
	Livestock GDP		*832,400,000*	61,205,882
	Total value of National Herd			
	Value of exported animals and animal products		*133,053,064*	9,783,314
	Value of imported animals and animal products		*552,765,975*	40,644,557
	Number of VLU			754,500
Country budget				
	National Budget		*15,952,241,000*	1,172,958,897
	Agriculture and Livestock Budget		*536,807,611*	39,471,148
	Veterinary Services Current Budget		*95,393,814*	7,014,251

I.2.C Organisation of the report

The desired levels of advancement for each PVS critical competency were identified, recognising national priorities and constraints, in discussion with the Veterinary Services of Swaziland. A PVS Gap Analysis was then completed to facilitate their compliance with recognised international standards as determined by the OIE. The following chapters indicate the resources and activities necessary to strengthen the Veterinary Services. The chapters follow a logical order identifying priorities, recognising constraints and issues, assessing processes and resources necessary and providing a work-plan for improvement.

Chapter II.2 of the methodology part of this report sets out the levels of advancement to be reached as decided by the Veterinary Services in discussion with the PVS Gap Analysis mission team.

The first four chapters of the second part of this report set out the objectives to be achieved, taking into consideration in particular the need to strengthen the technical independence and coordination of the Veterinary Services.

- Chapter I sets the standards required for international trade in animals and animal products, establishing the levels of advancement required for exports if and as targeted by the national policy;
- Chapter II considers veterinary public health, including specifically food safety, veterinary medicines and biologicals;
- Chapter III addresses animal health issues, the core mission of any Veterinary Services;
- Chapter IV considers the capability and capacity of veterinary laboratories, as required by the three preceding chapters.

The place of zoonosis may vary depending on the organisation of the country's Veterinary Services (e.g. either under Chapter II (Veterinary Public Health pillar) or under Chapter III (Animal Health pillar).

Chapter V makes recommendations on the general management of the Veterinary Services and the related regulatory services, including their public and private components, aiming at providing coordination and technical independence in line with OIE standards. Both the organisational structure of the national (public) Veterinary Services, including central and decentralised structures, and the role of private veterinary practitioners are defined. This chapter also identifies the reinforcement of cross-cutting skills (communication, legislation, education, etc.) required to run effective Veterinary Services in the country.

In order to assess its sustainability and coherence, chapter VI presents the budget for strengthening the Veterinary Services and its indicative analysis, including a breakdown per main budget lines (investments, operations, emergency) and sub-lines (salaries, items, etc.), and a comparison with *gross domestic product* (GDP: national, agriculture and livestock), national budget (total, agriculture, Veterinary Services), value of national livestock and of imported and exported animal products.

II National and international priorities and expected levels of advancement

The national and international priorities correspond to the strategic priorities in the short term of the National Development Plan 2014 – 2017 (Ministry of Economic Planning and Development) and the longer term strategic orientations of the Swaziland Poverty Reduction Strategy and Action Plan (PRSAP) 2008; as well as the National Development Strategy towards 2022 (Ministry of Economic Planning and Development), complemented by the internal goals and aspirations of the VSD itself. The national and international priorities of the Veterinary Services are largely covered in the VSD's mission statement:

The Mission of the National Veterinary Services is to prevent , control and/or eradicate animal and zoonotic diseases, promote animal production and welfare provide veterinary information and certification services to promote food security, socio-economic utilization of animal resources, human health and international trade.

II.1 National priorities

Table n°1 - Table for listing national priorities

Category of priorities	National priorities	Explanatory comments *(importance for the country)*
Policy on **livestock development (LD)** and trade	LD 1 : To promote commercial indigenous chicken broiler and egg production LD 2 : To develop and improve the national beef cattle herd LD 3: To promote livestock marketing in general and establish a *Meat Marketing Commission* (MMC) in the long-term to take over live-stock marketing responsibilities [b]. LD 4 : Intensify research into and promotion of the production of drought resistant (…) livestock [a] LD 5 : Improve research and extension services in order to enhance food production, (…), fisheries and aquaculture, chicken, piggery and other small livestock production [a] LD 6 : Promote production of crops and livestock for domestic and international markets by both small and large scale farmers [b]	National Development Plan 2014 – 2017 (Ministry of Economic Planning and Development) (a) The Swaziland Poverty Reduction Strategy and Action Plan (PRSAP) 2008. (b) National Development Strategy towards 2022 (Ministry of Economic Planning and Development)

Technical priorities in **Veterinary Public Health (VPH)**	VPH 1: To provide quality, efficient, effective, affordable and accessible basic health services to the whole population by 2015 and to combat malaria, TB and other diseases by 2010 and (…) to improve environmental health. [a] VPH 2: Design appropriate strategies to deal with emerging health problems [b] VPH 3: Implementation of the VPH Act [b], i.e. regulations, residue testing, imports (single window) and expansion of inspection to all primary production establishments [c]	[(a)] The Swaziland Poverty Reduction Strategy and Action Plan (PRSAP) 2008. [(b)] National Development Strategy towards 2022 (Ministry of Economic Planning and Development) [(c)] Possible funding from 11th EDF.
Technical priorities in **Animal Health (AH)**	AH 1: To ensure compliance with local and international animal health standards [b,] including compliance of legislation with the new Constitution[e] AH 2: To activate appropriately targeted rapid response to disease outbreaks [b] AH 3: To collect, collate and analyse data for the generation and dissemination of epidemiological information and early warning [b] AH 4: To conduct public awareness activities to invoke stakeholder collaboration and participation in animal health programmes [b] and capacitate farmers on disease outbreaks and response methods [b]	[(b)] National Development Strategy towards 2022 (Ministry of Economic Planning and Development) [(e)] The Constitution of the Kingdom of Swaziland Act, 2005
Policy on organisational structure and management of the **Veterinary Services (VS)**	VS 1 : Procurement of relevant tools and kits to conduct the necessary test and diagnostics [b] VS 2 : Improve living/housing and transport conditions of Veterinary Assistants [d] VS 3 : Expansion of the VS mandate to include wildlife surveillance and the surveillance of poultry diseases and ensure that corresponding expert staff is recruited [d] VS 4 : Improving the efficiency of delivery systems for meat inspection, the poultry sectors and wildlife surveillance within the current human resources framework [d]	[(b)] National Development Strategy towards 2022 (Ministry of Economic Planning and Development) [(d)] Personal communication Dr R. X. Dlamini.

II.2 Level of advancement

Every following exercise consisted in addressing the outcomes of the May 2015 PVS Follow-up Evaluation and, through a very interactive debate, to indicate what level of advancement was targeted by the DVLS and would appear to be realistically achievable within 5 years (designed as a result of the present PVS Gap Analysis exercise).

Of the 47 critical competencies, seventeen (17) were deemed to be satisfactory and/or that it was unlikely that improvements would be made (to the extent that the specific critical competency would maintain its current level of advancement but would not meet the requirements to comply with the next level of advancement) in a 5-year span, irrespective of the investments made. These were:

I.1.A. Veterinarians and other professionals	Level : 4
I.1.B. Veterinary para-professionals and other technical personnel	4
I.5. Stability of structures and sustainability of policies	4
I.6.A. Internal coordination (chain of command)	4
I.9. Emergency funding	3
II.1.A. Access to veterinary laboratory diagnosis	4
II.6 Emergency response	4
II.9 Veterinary medicines and biologicals	3
II.13 Animal welfare	3
III.3 Official representation	3
II.5.B. Veterinary Statutory Body capacity	2
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.7 Zoning	4

All the remaining critical competencies were targeted for improvements over the next 5 years. Major advances in performance (more than one level of advancement) are expected for 6 critical competencies:

I.6.B. External coordination	from: 2	to: 4
II.2 Laboratory quality assurance	2	4
II.5.A. Passive epidemiological surveillance	3	5
II.8.A. Regulation, authorisation and inspection of establishments	2	4
II.8.B. Ante and post mortem inspection	2	4
III.1 Communication	2	4

Table n°2 - Table for listing anticipated levels of advancement

Critical competencies	Level of advancement	
	Current	VS 5-year goal
Human, physical and financial resources		
I.1.A. Veterinarians and other professionals	4	4
I.1.B. Veterinary para-professionals and other technical personnel	4	4
I.2.A. Professional competencies of veterinarians	3	4
I.2.B. Competencies of veterinary para-professionals	3	4
I.3. Continuing education	2	3
I.4. Technical independence	3	4
I.5. Stability of structures and sustainability of policies	4	4
I.6.A. Internal coordination (chain of command)	4	4
I.6.B. External coordination	2	4
I.7. Physical resources	3	4
I.8. Operational funding	3	4
I.9. Emergency funding	3	3
I.10. Capital investment	3	4
I.11. Management of resources and operations	3	4
Technical authority and capability		
II.1.A. Access to veterinary laboratory diagnosis	4	4
II.1.B. Suitability of national laboratory infrastructures	3	4
II.2 Laboratory quality assurance	2	4
II.3 Risk analysis	3	4
II.4 Quarantine and border security	4	5
II.5.A. Passive epidemiological surveillance	3	5
II.5.B. Active epidemiological surveillance	3	4
II.6 Emergency response	4	4
II.7 Disease prevention, control and eradication	3	4
II.8.A. Regulation, authorisation and inspection of establishments	2	4
II.8.B. Ante and post mortem inspection	2	4
II.8.C. Inspection of collection, processing and distribution	2	3
II.9 Veterinary medicines and biologicals	3	3
II.10 Residue testing	2	3
II.11 Animal feed safety	2	3
II.12.A. Animal identification and movement control	3	4
II.12.B. Identification and traceability of products of animal origin	2	3
II.13 Animal welfare	3	3
Interaction with interested parties		
III.1 Communication	2	4
III.2 Consultation with interested parties	2	3
III.3 Official representation	3	3
III.4 Accreditation / authorisation / delegation	2	3
II.5.A. Veterinary Statutory Body authority	3	4
II.5.B. Veterinary Statutory Body capacity	2	2
III.6 Participation of producers and other interested parties in joint programmes	3	4
Access to market		
IV.1 Preparation of legislation and regulations	3	3
IV.2 Implementation of legislation and regulations and compliance thereof	3	3
IV.3 International harmonisation	4	4
IV.4 International certification	3	3
IV.5 Equivalence and other types of sanitary agreements	3	3
IV.6 Transparency	3	4
IV.7 Zoning	4	4
IV.8 Compartmentalisation	2	3

II.3 Impact and significance

The project developed through this PVS Gap Analysis and its estimated budget will lead to strengthened Veterinary Services with better compliance of OIE international standards, in particular those on quality of Veterinary Services laid down on Section 3 of the OIE Terrestrial Animal Health Code.

This would provide important benefits for Swaziland; in particular in terms of improved veterinary public health, increased animal production with improved food security, and the development of export markets for animals and products of animal origin.

PVS GAP ANALYSIS

I Strengthening competencies for international trade

The purpose of this section is to explain the proposed activities in the field of international trade development, for both imports and exports.

This will include the activities presented in Critical Competency Cards II.4, II.12, IV.4, IV.5, IV.6, IV.7 and IV.8.

I.1 Strategy and activities

Border inspection is currently conducted at 12 official border crossings. Only three *border inspection posts* (BIP) are authorised for the transit of animals and products of animal origin (at Lavumisa, Mahamba and Oshoek) and concentrate most of the border inspection resources of the DVLS. Border security is supported by cordon fences that prevent the uncontrolled transit of animals (and diseases) from neighbouring countries. The present strategy is considered adequate to control the risk that is associated with imported animals, products and materials.

Efficiency and effectiveness of border control could be enhanced by developing an electronic centralised database to improve the exchange of information between the BIPs and the central level, as well as with the importers and exporters. The system could support issuing of import permits and certificates, and could potentially support electronic certification to be implemented in a near future. This computerised system should be developed in close cooperation with the *Swaziland Revenue Authority* (SRA) *Customs and Excise Department* to allow for a single unified system to be implemented at entry points (e.g. 'single window').

Veterinary inspection at the borders is currently conducted by *Cordon Guards* (CG) with minimal technical training. Their competencies could be strengthened by providing specific training that would allow them to be promoted to inspector level (veterinary para-professional level) from their current status as "support staff".

Providing adequate housing is critical for the DVLS to be able to deploy personnel to crucial remote areas of the country such as border posts, quarantine stations and cordon camps and in the more remote sub-regions.

The DVLS will continue to actively cooperate with the private sector to support the export of products of animal origin by providing the technical leadership and certification required by the importing countries. New export opportunities such as exporting honey regionally and to the EU, or poultry and beef to countries in the Middle East, have been identified by industry; the DVLS will engage in establishing the necessary agreements with the different countries authorities to make this possible.

While developing the new border control database, the DVLS will explore alternatives to improve the current paper-based certificates' security features (e.g. watermarks, holograms).

The *Swaziland Livestock Identification and Traceability System* (SLITS), in place since 2012, has proven to be an effective system for individual identification of cattle using visual identification eartags. 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.

The DVLS foresees extending the use of the SLITS to sheep and goats in the upcoming five years. Also, efficiency of the data entry by Veterinary Assistants involved in the day to day field work could be improved by providing mobile devices to allow on-site data entry and access (ideally based on RFID or barcode identification on eartags).

In addition to the above mentioned changes in the border control data management systems, the DVLS projects a comprehensive shift from paper based management procedures to a computerised system that would integrate the different areas under its mandate (see CC I.11). Animal and producer registers and movement records of animals represent a core resource for the VS information and management systems; consequently, it would be rational to base this development on the already existing SLITS database to ensure full compatibility and integration.

I.2 Human resources

An estimation of the number of staff required to provide inspection at border posts, to take care of the existing quarantine stations (Maphiveni and Mpisi), and to control and maintain the border fences is presented in the table below. The estimates are to assure the presence of DVLS inspectors at each site when the BIP is open (staff is understood to be at work 8 hours per day and 230 days per year).

Table n°3 - Estimation of the number of staff required to provide inspection at border posts, to take care of the existing quarantine stations and to control and maintain the border fences priorities

Veterinary inspection and control					Human resources							
PVS Critical Competency	Categories of sites to inspect	Number of sites of this category	Number of days of work per year on site	Number of hours of work per day on site	Veterinarians		Other university graduates		Veterinary para-professionals		Support staff	
					on site	total in Full time equivalent	on site	total in Full time equivalent	on site	total in Full time equivalent	on site	total in Full time equivalent
II-4.	**Quarantine and border security**									**47.7**		**223.0**
	Border Posts - Animals & products (Ngwenya/Oshoek)	1	365	17.0					2	6.77		
	Lavumisa, Mahamba	2	365	15.0					1	5.98		
	Mozambique	1	365	24.0					1	4.78		
	Other border posts (pets)	8	365	12.0					1	19.13		
	Maphiveni Quarantine Station	1	230	8.0					2	2.01	4	4.02
	Mpisi Quarantine Station	1	230	8.0					2	2.01	4	4.02
	Hhohho fence - cordon camps	12	365	8.0							2	45.21
	Southern border - cordon camps	8	365	8.0							2	25.50
	Lubombo "protection zone"	44	365	8.0							2	140.26
	Green line check-points	4	230	8.0							1	4.02
	Sub Regional Cordon Inspectors	7	230	8.0					1	7.03		

Note: For this exercise Cordon Guards *(CG) are considered as support staff*

Calculations show that present numbers of staff are sufficient to cover the estimated workload. However, it is suggested here to upgrade 40 cordon guards to the level of veterinary para-professional, in order to improve the quality of the service performance at major BIPs, and at the Quarantine Stations. The cost of the initial training for these veterinary para-professionals is included in the Management Section (CC-I.2.b).

Identification of animals (CC-II.12.a) is conducted by the Field Services' VAs, consequently the workload required for this activity is covered in the field network in the Animal Health pillar.

Continuing education of staff on matters covered under this pillar is included in the overall costs of continuing education discussed in the Management Section (CC-I.3).

I.3 Physical resources

The customs authority provides BIP infrastructure, and consequently the estimated cost only provides for office equipment for VSD staff at major posts where imports of animals and products are allowed.

Providing housing to staff is critical to assure the adequate deployment of veterinary services to remote areas of the country such as border crossings or cordon camps. Housing requirements were estimated at 60 m^2 for each BIP (n=36, 1/3 having to be built, 1/3 renewed, and 1/3 for maintenance); two 25 m^2 apartments are needed in each cordon camp, 12 new cordon camps would be built, the remaining 52 would be properly maintained.

Motorbikes (n=7) have been allocated for all Sub-Regional Cordon Inspectors, in order for them to be able to visit the different BIPs, QS and cordon camps when necessary.

Funds have been allocated to maintain quarantine stations at Maphiveni and Mpisi (USD 1,700 per year each).

USD 1.1 million is allocated to the full 5-year period to provide for the renewal of fences (700 km at USD 2,500per km), USD 180,147 would be funded in the annual cost, and USD 900,735 as exceptional cost based on an estimated write-off of 10 years).

I.4 Financial resources

The total financial resources for this pillar are presented in Table n° 4.

The total annual estimated cost is USD 1,685,169 and an exceptional cost of USD 1,275,897 for capital items.

A special fund of USD 10,000 was included (CC-IV.4) to finance the development of new security measures for certificates.

Four weeks of international expertise have been included in the budget to support the expansion of the SLITS to new species. This represents USD 35,000.

Funds have been allocated for the organisation of international missions of VSD staff to explore and negotiate the development of new exports. This was budgeted as 2 weeks for 2 people per year.

Table n°4 - Sub-Total for strengthening competencies for international trade

SUB-TOTAL TRADE						
Resource and cost lines	Current Number	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments						
Buildings ()		3343				
Maintenance cost per (m2)		2714	34	1	92,290	
Renovation cost per (m2)		14	503	5	1,449	
Building cost per (m2)		614	671	25	16,490	329,810
Transport (Purchasing cost)						
Motorbikes		7	3,676	3	8,577	
Cars			19,118	5		
4x4 vehicles			31,618	5		
*Other specific vehicle for Trade**						
*Other specific vehicle for Trade**						
Staff office equipment set		3	3,088	2	4,632	
Other specific office equipment set		233	515	1	119,995	
Other specific equipment						
*Other specific equipment for trade**					180,147	900,735
*Other specific equipment for trade**						
Sub-total Material investments					**423,580**	**1,230,545**
Non material investments						
Training						
Specialised training (person-months/5 years)		-	3,750			
Continuing education (person-days/year)		-	27			
National expertise (days/5 years)		-	147			
International expertise (weeks/5 years)		4.0	8,838			35,352
Special funds (/ 5 years) for …						10,000
Sub-total non material expenditure						**45,352**
Salaries						
Veterinarians		-	28,676			
Other university degree		-	18,382			
Veterinary para-professionals		47.0	8,088		380,136	
Support staff		223.0	2,941		655,843	
Sub-total Salaries					**1,035,979**	
Consumable resources						
Administration			20%		207,196	
Travel allowances						
staff within the country (person-days) / year		-	2			
drivers within the country (person-days) / year		-	2			
staff abroad (person-weeks) / year		4	4,288		17,152	
Transport costs						
Km or miles Motorbikes / year		25,200	0.05		1,262	
Km or miles cars / year		-	0.12			
Km or miles 4x4 vehicle / year		-	0.20			
*Other transport fees**						
*Other transport fees**						
Specific costs						
Targeted specific communication						
Consultation (number of 1 day meetings)						
Kits / reagents / vaccines						
*Other costs for trade**						
*Other costs for trade**						
Sub-total Consumable resources					**225,610**	
Delegated activities						
Sub-total Delegated activities						
Total in	***USD***				***1,685,169***	***1,275,897***
Total in	***Emalangeni***				***22,918,295***	***17,352,202***

II Strengthening competencies for veterinary public health

The purpose of this section is to explain the proposed activities in the field of veterinary public health.

This will chiefly include the activities presented in the Critical Competency Cards II.8, II.9, II.10 and II.11.

II.1 Strategy and activities

Currently ante- and post-mortem inspection is performed by the VSD only at the SMI export beef abattoir and processing plant in Matsapha. The regional VO's also perform certain inspection and import certification duties. Health and environment inspectors from the MoH and Local governments currently conduct inspections at the local abattoirs and other meat-rendering facilities in the rest of the country, with no national standard or unified procedures.

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 with inspection and control of food of animal origin, including poultry and dairy products. The Act applies to the primary production of unprocessed and processed products of animal origin intended for human consumption in the national marketplace as well as all imported products. The Act includes the authority for the VSD to delegate any of these powers to any officer under its supervision.

The Act does not apply to: primary production for private domestic use or consumption; domestic preparation for private domestic production; or, traditional or ritual slaughter.

Efforts during the 5-year period would be focused on the definition of a new comprehensive approach for the implementation of the VPH Act, including the development of the supporting regulations and procedures and to progressively start its implementation.

The new Act represents a unique opportunity for Swaziland to implement a consistent national standard on food safety to provide consumers with higher quality and safer food, in compliance with the relevant international standards (OIE, *Codex Alimentarius*). The VSD has the technical competence to take over this new responsibility; however, this will require the development of new regulations and procedures, and the engagement and support of the private sector and other governmental agencies. This also represents a major challenge in terms of technical, human, physical and financial resources to be mobilised.

New regulations will have to define the requirements/standards for authorisation and inspection of slaughterhouses, abattoirs and establishments for processing of products of animal origin, as well as quality and safety standards for these products. Once the regulatory framework is defined, an information and documentation management system will need to be developed for the VPH division with standard operating procedures for food safety inspections.

More detailed information on the number, characteristics, and status of the facilities of the establishments presently operating in the country will be required to establish the best strategy to implement the new rules and regulations. A possibility would be to start drafting regulations and implementing them first in one (sub) region as a pilot project.

The strategy is for the DVLS to provide specialised training and assign three senior meat inspectors to lead this process within the VPH Division of the VSD, creating three positions, one for the export facilities, one for the import of products and one for the establishments serving the national market. There is still no defined strategy to fill the positions required for the VSD to provide inspection throughout the country.

Considering the limitations of hiring new staff, a possibility would be to delegate these activities to current staff from the MoH and local governments through a transparent accreditation process. If the delegation route is taken, appropriate regulations and

procedures will be needed to ensure that the DVLS maintains an adequate and appropriate chain of command. The accreditation procedures should guarantee that those entrusted with these delegated inspection activities are technically competent with the appropriate training, knowledge, skills and ability to perform these tasks.

Inspection of non-commercial slaughter and processing (e.g., religious, on farm, self-consumption) would be voluntary but encouraged and addressed by FS' staff as part of their routine fieldwork by promoting good practices to improve safety.

According to the legislation, the VSD has broad authority over the importation, exportation, use and movement of veterinary medicines and biological products, including feed additives. This function is currently limited to a thorough administrative control over the import and authorisation to marketing. The VSD would like to play a more active role to control the retail and use of these products. The inspection of marketing points (retail sales) is part of the new VSD responsibility; for the first time, VPH inspectors will be tasked to enforce existing legislation (categories of drug registration). Additionally, prudent use of antimicrobial agents will be included as a key topic among the VAs extension roles with farmers.

Residue testing is presently done on a systematic basis to comply with beef export requirements for the EU, nevertheless, the sampling plan provided by the EU covers the entire cattle population, and consequently covers beef for national consumption. Samples are collected at slaughter by VPH Inspectors and field samples by FS staff. The next step in this area would be to implement a residue monitoring plan for the poultry sector. Surveillance of antimicrobial residues and antimicrobial resistance is recognised as an important priority for the near future, although considering the upcoming major changes in the VPH domain, no priority action is foreseen on this area in this five year plan. The analytical costs associated with this activity are covered under the "laboratory" pillar of this report.

The above significant changes envisaged in the VPH domain will require extensive consultation with stakeholders and other governmental structures to develop a cohesive system for the effective implementation of the new VPH Act with rational use of the human, physical and financial resources.

The DVLS controls and inspections in the VPH domain will provide important information for the surveillance of animal disease and zoonosis, as well as animal identification and traceability, thus they should be rapidly integrated into the corresponding systems and databases. The development of a comprehensive computerised system will be needed to integrate the different areas under the DVLS mandate (see CC I.11).

II.2 Human resources

Current VSD staff in this domain is mainly dedicated either to managerial activities at central level, or to activities related to the beef export slaughterhouse.

After the implementation of the new VPH Act, VSD will have to register all slaughter and processing facilities, and will have to conduct ante- and post-mortem inspection during slaughter, and guarantee the safety of products of animal origin. Also, considering the high proportion of slaughter that occurs outside of the registered premises, it will be important, as part of the VSDs role in assuring the safety for consumers, to avoid, as much as possible, that uncontrolled/uninspected meat is commercialised. For this, VSD staff would have to be allocated to conduct an inspection programme at butcheries and other distribution points.

This represents an important increase in the workload of VSD staff. Different strategies may be considered to assign personnel for this new mandate. This exercise estimates the workload that would be required in terms of *full-time equivalents* (FTE).

The table below provides an indication of the staff required to undertake this work, considering that:

- Present resources would be maintained in the export abattoir (CC-II.8.B)
- Cattle, small ruminant, poultry and pig slaughterhouses for national and municipal distribution would be inspected by one full-time veterinary paraprofessional on site, under the supervision of a veterinarian that would visit 3 sites per day (CC-II.8.A & B)
- Inspection of the collection and processing of products of animal origin would be conducted by a team of 1 veterinarian and 1 veterinary para-professional (CC-II.8.C).
- It is estimated that VSD staff will conduct 1 two-hour visit per year to the 500 butcheries around the country.

Table n°5 - Estimation of the number of staff required to provide veterinary public health services

Veterinary Public Health inspection and control					Human resources							
PVS Critical Competency	Categories of sites to inspect	Number of sites of this category	Number of days of work per year on site	Number of hours of work per day on site	Veterinarians		Other university graduates		Veterinary para-professionals		Support staff	
					on site	total in Full time equivalent	on site	total in Full time equivalent	on site	total in Full time equivalent	on site	total in Full time equivalent
II-8.A	**Regulation, autorisation and inspection of establishments**											
II-8.B	**Ante & post mortem inspection**					**5.51**				**21.49**		**1.56**
	Cattle Export	1.00	260.00	11.00	0.30	0.47			3.00	4.68	1.00	1.56
	Cattle & SR	16.00	156.00	5.00	0.30	2.04			1.00	6.81		
	Poultry	10.00	260.00	6.00	0.30	2.55			1.00	8.52		
	Pig	3.00	104.00	6.00	0.30	0.31			1.00	1.02		
	Cattle & SR + Pigs (Municipal)	4.00	52.00	4.00	0.30	0.14			1.00	0.45		
II-8.C	**Inspection of products of animal origin**					**0.81**				**0.81**		
	Meat processing											
	Beef processing Export											
	Meat processing National market	4.00	6.00	8.00	1.00	0.10			1.00	0.10		
	Poultry processing	2.00	6.00	8.00	1.00	0.05			1.00	0.05		
	Dairy processing											
	Dairy processing	2.00	6.00	8.00	1.00	0.05			1.00	0.05		
	Other food processing											
	Honey collection center	2.00	6.00	8.00	1.00	0.05			1.00	0.05		
	Distribution sector											
	butcheries	500.00	1.00	2.00	1.00	0.55			1.00	0.55		
II-9	**Veterinary medicines & biologicals**					**0.08**						
	Importers	10.00	2.00	2.00	1.00	0.02						
	Retailers	50.00	2.00	1.00	1.00	0.05						

To undertake these Veterinary Public Health tasks it is estimated that 6.5 FTE veterinarians and 22 FTE veterinary para-professionals will be required. The number of veterinarians required will probably not be immediately available but these numbers should be recruited as soon as possible. Veterinarians play a critical role in the surveillance of animal and zoonotic diseases and in ensuring food safety.

These calculations have also included the work that would be required to inspect importers of veterinary drugs and biologicals, as well as retailers. Calculation shows that conducting 2 two-hour visits per year to the importers, and 2 one-hour visits per year to 50 retailers, would require only 10% of the time of a full-time veterinary inspector. This would be key to improve the control of veterinary drugs and biologicals.

Continuing education of staff on matters under this pillar is included in the overall costs of continuing education discussed under the Management Section (CC-I.3).

II.3 Physical resources

Each slaughterhouse should provide an office for the Veterinary Inspectors, so there will be no direct cost for the VSD. The estimated costs to the VSD include the provision of office equipment to allow the inspectors to conduct their administrative duties and reporting, this equipment could be fixed or mobile depending on the organisation of the work ((CC-II.8.B).

Some veterinarians and veterinary para-professionals involved in inspection at slaughterhouses would be covering more than one site, so transport means are included to allow them to perform their duties. In total, 6 cars have been included for the veterinarians and 16 motorbikes for veterinary para-professionals (CC-II.8.B).

Additionally, 2 cars and 2 sets of mobile equipment (computers and cell phone) have been included for each team that would inspect processing plants and veterinary products importers and retailers (CC-II.8.c).

II.4 Financial resources

The total financial resources for this pillar are presented in Table n°6 -.

The total annual estimated cost is USD 565,000 and an exceptional cost of around USD 63,000.

The exceptional cost corresponds to funds allocated to contract 50 days of consultation by both a national expert and international expert, to assist the VSD in drafting regulations to implement the new VPH Act, to develop the classification system for food business operators as well as the definition of safety and quality requirements. In total this represents USD 70,000.

The costs of the residue-monitoring programme are included under the costs of the Laboratory pillar.

Table n°6 - Sub-Total for strengthening competencies for veterinary public health

SUB-TOTAL VETERINARY PUBLIC HEALTH						
Resource and cost lines	Current Number	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments						
Buildings ()						
Maintenance cost per (m2)		-	34	1		
Renovation cost per (m2)		-	503	5		
Building cost per (m2)		-	671	25		
Transport (Purchasing cost)						
Motorbikes		16	3,676	3	19,605	
Cars		8	19,118	5	28,677	
4x4 vehicles		-	31,618	5		
*Other specific vehicle for Vet. Public Health**						
*Other specific vehicle for Vet. Public Health**						
Staff office equipment set		2	3,088	2	37,056	
Other specific office equipment set		-	515	1		
Other specific equipment						
*Other equipment for Vet. Public Health**						
*Other equipment for Vet. Public Health**						
Sub-total Material investments					**85,338**	
Non material investments						
Training						
Specialised training (person-months/5 years)		-	3,750			
Continuing education (person-days/year)		-	27			
National expertise (days/5 years)		49.0	147			7,203
International expertise (weeks/5 years)		7.0	8,838			61,866
Special funds (/ 5 years) for …						
Sub-total non material expenditure						**69,069**
Salaries						
Veterinarians		6.5	28,676		186,394	
Other university degree		-	18,382			
Veterinary para-professionals		23.0	8,088		186,024	
Support staff		2.0	2,941		5,882	
Sub-total Salaries					**378,300**	
Consumable resources						
Administration			20%		75,660	
Travel allowances						
staff within the country (person-days) / year		-	2			
drivers within the country (person-days) / year		-	2			
staff abroad (person-weeks) / year		-	4,288			
Transport costs						
Km or miles Motorbikes / year		57,600	0.05		2,884	
Km or miles cars / year		187,500	0.12		21,907	
Km or miles 4x4 vehicle / year			0.20			
*Other transport fees**						
*Other transport fees**						
Specific costs						
Targeted specific communication						
Consultation (number of 1 day meetings)						
Kits / reagents / vaccines						
*Other costs for Vet. Public Health**						
*Other costs for Vet. Public Health**						
Sub-total Consumable resources					**100,451**	
Delegated activities						
Sub-total Delegated activities						
Total in	***USD***				***564,090***	***69,069***
Total in	***Emalangeni***				***7,671,620***	***939,338***

III Strengthening competencies for animal health

The purpose of this section is to explain the activities proposed in the field of animal health.

These activities are chiefly those presented in the Critical Competency Cards II.5, II.6; II.7 and II.13.

III.1 Strategy and activities

Swaziland has strong and effective animal disease surveillance and control programmes under the sound leadership of the VSD with good coordination with the private sector and efficient implementation of activities that is evidenced, as an example, by the internationally recognised free status for FMD and PPR. The biggest challenge faced by the animal health programmes has been the lack of financial resources that often curtails disease control efforts or prevents implementation of new programmes.

Animal health activities are implemented by the FS of the VSD, which maintains an effective field network using the diptank area as the basic epidemiologic unit. This network is considered adequate for the DVLS, and the analyses conducted during this mission showed that it is well suited to cover the national territory and provides excellent contact of veterinary para-professionals with animals and farmers while assuring a good degree of veterinary supervision and intervention when needed. The network has an adequate number of staff, although operational funding would have to be increased to allow their work to be more effective and sustainable.

Improving the effectiveness and efficiency of the field network will naturally strengthen epidemiological surveillance, both active and passive. Efforts will be made to improve the surveillance and suspicion reporting, especially in species other than ruminants. Specific activities were identified that could be conducted to enhance the sensitivity of the passive surveillance system. Information management and sampling and diagnostic protocols would be developed to improve the role of field staff in detecting notifiable diseases. Information gathered at the ante- and post-mortem inspection would be included in the passive surveillance system. The VSD will establish stronger and more formal links with private veterinarians (mostly specialist veterinarians providing some contract services to commercial producers) and the more intensified producers particularly within the poultry sector, to collect epidemiologic information on suspicions and relevant private laboratory results.

A new approach will be developed to cover the surveillance of diseases in wildlife; DVLS can analyse a variety of available options to find the most cost-effective mechanism to implement a specific active surveillance programme for this population. For the upcoming five years, efforts will be centred on providing specialised training for a veterinarian to coordinate these activities within the Veterinary Epidemiology Unit.

Existing animal disease control programmes (FMD, rabies,) and emergency response/preparedness plans (FMD, rabies, AI) will be evaluated by the VSD to ensure they are effectively adapted to the current sanitary situation of the country and the region.

The strategy would provide special attention to the existing control programmes for bovine brucellosis and tuberculosis to ensure more effective results. The new VPH responsibilities provide VSD with the opportunity to develop a comprehensive programme linking the findings in slaughterhouses (bTB) and the dairy industry (brucellosis) with the control measures applied in the field. The VSD should develop strong cooperative mechanisms with the private sector and the Swaziland Dairy Board (SDB) to provide compensation and incentives to support testing and slaughter of positive animals.

PPR was identified by the VSD as a potential threat due to the evolution of the disease in the region; consequently, a formal risk assessment will be conducted and the specific surveillance programme will be strengthened and supported by a specific new contingency plan.

Regular visits from the VEU to the RVOs will be programmed to maintain awareness of regional and other relevant field staff of the emergency preparedness plans. These meetings also represent an opportunity to engage other relevant potential participants at the local level (e.g. police, MoH, stakeholders). One major simulation exercise to be conducted every five years including representatives from all regions is included in the budget.

At present, VSD have sufficient technical capacities within its staff to undertake these activities. Additionally, the VSD will implement a specialised training plan to further develop the expertise within its veterinary staff to support disease control and monitoring in poultry (extensive and commercial) and bees at internationally recognised centres outside Swaziland.

Little has been done to update the existing legislation on cruelty of animals to align it with the evolution of the international standards on animal welfare. Swaziland currently has several opportunities to incorporate OIE principles and specific animal welfare standards (Title 6 of the OIE Terrestrial Animal Health Code) within the context of developing new regulations to implement the VPH Act (e.g., welfare of animals during transport and slaughter), also the predominance of extensive farming facilitates the compliance with those standards on animal welfare within production systems. A specific member of the veterinary staff would be appointed within the VSD to lead this subject as part of its duties.

III.2 Human resources

The field network is organised under the FS of the VSD. The network is organised in three levels: 4 Regional Veterinary Offices, 28 Sub-Regional Veterinary Offices (SVO), and 650 diptanks. As described below, this number of sites allows adequate coverage of the national territory.

Regional Veterinary Offices are headed by Veterinary Officers, some of which are assisted by Senior Animal Health Inspectors (veterinary para-professionals). The RVOs are responsible for organizing, supervising and complementing the work of the SVO. Regional officers could also support inspection at the border posts when needed. The analysis conducted showed that each of the 4 Regional offices is estimated to cover 95,000 *veterinary livestock units* (VLU) and would have an estimated average return distance of 34 km to any point in the area under its mandate. This is considered adequate to provide a good level of veterinary supervision and involvement in field work.

Sub-Regional Veterinary Offices are in charge of providing the veterinary services in a smaller area, including farm inspections, supervising and supporting the activities at the diptanks, and providing overall management of the service; they are also responsible for the supply and administration of vaccination programmes. Sub regional Offices are headed by Animal Health Inspectors (veterinary para-professionals), assisted by Veterinary Assistants. They represent a key component of the surveillance network as they are the ones in closest contact with the animals and farmers. One SVO oversees on average 27,000 *veterinary livestock units* (VLU) and has an estimated average return distance of 18 km to any point in its area.

The diptanks are the most local division of the veterinary services network. Diptanks form the basis for the animal health activities including disease surveillance, vaccination and general animal health care. Diptanks are used for ruminants, which are dipped once every one or two weeks depending on the season, nevertheless visits to the diptanks are also used to treat other species, and also to facilitate farm visits. Each diptank is managed by a *Dip-Tank Attendant* (DTA), who normally is a member of the local community and who promotes and

coordinates the activities on site. For this job he receives an allowance from the VSD. The number of diptanks allows for a maximum distance of 4 km for any animal in its area. The amount and distribution is satisfactory for the DVLS.

Based on the strategies and activities descried above, and taking into account the current activities, the table below presents an estimation of the staff requirements (in FTE) to cover the workload of the FS. Staff was considered to work 8 hours per day and 229 days per year, dedicating 4 days a week to field tasks, an 1 day per week to work if office.

Table n°7 - Estimation of the number of staff required to provide animal health services at field level

Step B - Estimation of the minimum number of Field Veterinary Stations to implement official activities

Step B1: Estimation of the workload required to implement all official activities related to animals per FVS

Campaign or dates (duration)	Activity	Species	Targeted number of animals (b)	Average animals per day (c)	Total number of days (d= (b/c))
September	Rabies vaccination	Canine	81,920	2,700	30
	PPR surviellance	SR	300	10	30
Annual	Clinical surveillance for FMD / mouthing	Bovine	40,000	800	50
Semi-annual	Brucellosis vaccination	Heifer	50,000	400	125
	CBPP surviellance	Bovine	300	10	30
July	TB & Brucellosis surviellance	Dairy	5,000	165	30
					296

Step B2: Estimation of the workload required for conducting official visits to sites (food inspection, village training, farm surveys, etc.)

Campaign or dates (duration)	Activity	Type of sites to visit	Number of visits per year (e)	Number of days per visit (f)	Total number of days (g= (e*f))
Annual	Dipping & ear tagging	Diptank	31200	0.70	21840
Annual	Inspection of home slaughter		233	26.00	6058
Annual	TB & Bruc trace-back in beef	Diptank	192	1.00	192
Annual	Farm visits	Farm	233	52.00	12116
					40,206

Total number of working days required to implement all official activities	h = (d+g)	40502
Number of working days available per year & per FVS to implement all official activities	i	183.2
Minimum number of Field Veterinary Stations	j = (h/i)	221

Note: for this calculation Field Veterinary Stations *(FVS) correspond to field veterinary staff*

These calculations are broad estimations and show that current staff numbers are apparently sufficient to perform the activities that will be required. Consequently the PVS Gap Analysis allocated the cost for the existing 8 veterinarians and 272 veterinary para-professionals to the cost of the field network (CEC II.7). These resources are distributed as follows:

Regional Veterinary offices (n=4)

- 8 Veterinary officers
- 5 Senior Animal Health Inspectors

Sub-Regional Veterinary offices (n=28)

- 34 Animal Health Inspectors
- 233 Veterinary Assistants

The estimated cost for animal health activities also includes USD 29,000 to cover the monthly allowance of 650 Dip-Tank Attendants (USD 45 per month per DTA). This cost is considered as a delegated activity (CEC.II-7).

Continuing education of staff on matters under this pillar is included in the overall costs of continuing education discussed under the Management Section (CC-I.3).

III.3 Physical resources

The field infrastructure of the VSD already exists and is functional; nevertheless it should be updated and properly maintained. Transport and office equipment should be provided so that staff can perform their roles.

Physical resources have been allocated based on the structure of the field network:

Regional Veterinary offices (n=4)

- Cost of maintenance of 100 m^2 per office.
- 1 pickup per veterinarian (n=8).
- 1 office equipment set per office (n=4).
- 1 set of mobile IT equipment per veterinarian (n=8)
- 1 refrigerator per office (n=4)
- A set of veterinary equipment (necropsy, sampling, boots, etc.) per office (n=4)

Sub-regional Veterinary offices (n=28)

- Cost of maintenance of 40 m^2 per office.
- 1 car per office (n=28).
- 1 motorbike per Veterinary Assistant (n=233).
- 1 office equipment set per office (n=28).
- 1 refrigerator per office (n=28)
- A set of veterinary equipment (necropsy, sampling, boots, etc.) per office (n=28)

As previously indicated, providing adequate housing for VSD personnel is critical to assure the adequate deployment of veterinary services to remote areas of the country which is critical to assure the success of disease control programmes and surveillance of animal diseases. Housing requirements were estimated at 60 m^2 per field staff (n=279, 20% was budgeted to be built, 20% renewed, and 60% just maintained).

III.4 Financial resources

The total financial resources for the Animal Health pillar are presented in Table n° 9.

Operational funding for the field network is the main limiting factor for the animal health programmes and the achievement of VSD goals. Operational costs for this pillar are estimated at around USD 4 million, including USD 2.5 million for salaries, USD 160,000 for the maintenance and running cost of vehicles, administration costs (calculated as 20% of total salary), vaccines, and acaricides.

Vaccines required for official disease control programmes are presented in the table below. The total cost per year is estimated at USD 66,000.

Table n°8 - Estimated yearly costs of vaccines for official animal health programmes

Vaccines required for DVLS official programmes	Cost per dose (USD)	Number of doses per year (Target)	Cost per year (USD)
Brucellosis	0.59	50,000	29,411.76
Rabies	0.37	100,000	36,764.71
		Total (USD)	**66,176.47**

According to the information provided by the VSD, providing adequate quantities of acaricide to fulfil the requirements of the cattle dipping programme was included at a cost of USD 772,000 per year.

A special fund of USD 1,350 for the 5-year period has been allocated to organise one real-time large scale simulation exercise to maintain the preparedness and awareness for contingency plans. Also, funds were included for the VEU to conduct 2 visits per year to each Regional Veterinary Office to review and discuss contingency plans (CEC.II-6).

Cost for diagnosis related to disease surveillance, and animal health programmes are included under the costs of the Laboratory pillar.

Table n°9 - Sub-Total for strengthening competencies for animal health

SUB-TOTAL ANIMAL HEALTH						
Resource and cost lines	Current Number	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments						
Buildings ()		18,260				
Maintenance cost per (m2)		11,564	34	1	393,176	
Renovation cost per (m2)		3,348	503	5	336,809	
Building cost per (m2)		3,348	671	25	89,860	1,797,206
Transport (Purchasing cost)						
Motorbikes		233	3,676	3	285,503	
Cars		28	19,118	5	107,061	
4x4 vehicles		8	31,618	5	50,589	
*Other specific vehicles for Animal Health**						
*Other specific vehicles for Animal Health**						
Staff office equipment set		36	3,088	2	55,584	
Other specific office equipment set		8	515	1	4,120	
Other specific equipment						
*Other equipment for Animal Health**					3,200	
*Other equipment for Animal Health**						
Sub-total Material investments					**1,325,901**	**1,797,206**
Non material investments						
Training						
Specialised training (person-months/5 years)		-	3,750			
Continuing education (person-days/year)		-	27			
National expertise (days/5 years)		-	147			
International expertise (weeks/5 years)		-	8,838			
Special funds (/ 5 years) for …						1,350
Sub-total non material expenditure						**1,350**
Salaries						
Veterinarians		8.0	28,676		229,408	
Other university degree		-	18,382			
Veterinary para-professionals		272.0	8,088		2,199,936	
Support staff		-	2,941			
Sub-total Salaries					**2,429,344**	
Consumable resources						
Administration			20%		485,869	
Travel allowances						
staff within the country (person-days) / year		8	2		16	
drivers within the country (person-days) / year		-	2			
staff abroad (person-weeks) / year		-	4,288			
Transport costs						
Km or miles Motorbikes / year		838,800	0.05		42,002	
Km or miles cars / year		700,000	0.12		81,787	
Km or miles 4x4 vehicle / year		200,000	0.20		40,059	
*Other transport fees**						
*Other transport fees**						
Specific costs						
Targeted specific communication		-				
Consultation (number of 1 day meetings)		-				
Kits / reagents / vaccines					66,100	
*Other costs for Animal Health**					772,059	
*Other costs for Animal Health**					16,000	
Sub-total Consumable resources					**1,503,891**	
Delegated activities						
					28,676	
Sub-total Delegated activities					**28,676**	
Total in	***USD***				***5,287,813***	***1,798,556***
Total in	***Emalangeni***				***71,914,253***	***24,460,367***

IV Strengthening competencies for veterinary laboratory diagnosis

The purpose of this section is to explain the proposed activities in the field of veterinary laboratory diagnostic: Critical Competency Cards II.1 and II.2.

IV.1 Strategy and activities

The main objective of the VSD is to increase its capability to access and use laboratory diagnosis in support of the official animal and public health programmes. The main strategy for this would be to strengthen the links between field and laboratory services, and to provide the necessary resources for an optimal and sustainable operation.

No significant changes are foreseen in terms of the national laboratory infrastructure; in consequence, activities revolve around the operations of the country's national reference laboratory, the Central Veterinary Laboratory (CVL), as well as other laboratories, such as the future food safety laboratory (currently operating from the SMI premises) and foreign laboratories, mainly the South Africa *Onderstepoort Veterinary Institute* (ARC-OVI).

An increase in laboratory requirements would be generated by the extension of new meat and food inspection activities as a result of the enactment of the VPH Act, the strengthened animal disease surveillance, and specially the renewed emphasis on the control of brucellosis (and tuberculosis) in dairy and beef cattle.

Specific activities would be conducted to promote a more proactive role of field services in diagnosis and sample submissions, as providing more and better quality samples is essential for the expected improvement of disease control and surveillance programmes. The projection of the VSD is that, as a consequence of these enhanced programmes, approximately 20,000 diagnostic analyses (not samples) are expected to be processed annually. This represents an increase of more than a 50% the current volume of analyses (13,000 per year, as reported by the CVL and SMI for 2014).

The provision of adequate funding for reagents, consumables, and for appropriate functioning, maintenance, and eventually replacement of equipment will be required for achieving the expected level of compliance of the national veterinary infrastructures with the international standards and their suitability to the national needs. Continuing education and keeping up to date the specialised skills required for the laboratory staff is also critical.

The CVL will engage in a quality assurance policy establishing a formal quality management system and seeking ISO certification when possible. Additionally, a new *laboratory information management system* (LIMS) would be introduced to improve the efficiency of the operation of the laboratory.

Methodology - general comment

The PVS Gap Analysis does not calculate the true cost of the whole veterinary laboratory network, but only the funds required to perform the laboratory tests needed to implement the strategies and activities of the official programmes identified in the first three pillars of the PVS Gap Analysis *(Trade, Veterinary Public Health* and *Animal Health).*

Therefore the PVS Gap Analysis does not develop estimates of the need for particular equipment and reagents unless these needs are directly justified by the expected turnover of samples, generated by the veterinary field network and other facilities or of the Veterinary Services. Additionally, aspects of research or education are out of the scope this PVS Gap Analysis. This simplified modelling approach to the veterinary laboratory diagnostic services also disregards private veterinary services or services to the private sector.

Furthermore, the PVS Gap Analysis uses parity pricing for laboratory analysis from private sector laboratories rather than using the subsidised pricing structure of the public sector

laboratories. These costs or rates are believed to represent the actual costs of conducting the analyses, taking into account the cost of labour, purchase, write-off, maintenance and calibration of equipment, cold storage, use of reagents and all other consumables, as well as the overall overhead for administration and infrastructure write-off as would be done by any medical analysis laboratory in the private sector.

In this particular case, the pricing (for private clients) of the *Onderstepoort Veterinary Institute* (OVI) was used as a basis. The table below lists the reference parity unit costs used for calculation purposes.

Table n°10 - Estimation of reference parity unit costs

Type of analyses	Proposed relative value	Local nomenclature Monet. Value	Proposition	Chosen by the expert
Immunological tests				
Agglutination or haemagglutination	1.0	19.00	19.00	**19.00**
Tube agglutination or precipitation	1.5		68.52	**68.52**
IHA	1.5	73.00	73.00	**73.00**
Complement fixation	2.0	18.00	18.00	**18.00**
AGID	2.0		91.37	**91.37**
ELISA and ELISA-based assays	5.0	67.00	67.00	**67.00**
Immunofluorescence (dir. or indir.)	5.0	286.00	286.00	**286.00**
Serum neutralisation	10.0		456.83	**456.83**
Gene sequencing				
PCR	15.0	815.00	815.00	**815.00**
Anatomical pathology				
Post mortem: large animals	20.0		913.66	**913.66**
Post mortem: medium animals	12.0		548.20	**548.20**
Post mortem: poultry	5.0		228.42	**228.42**
Histological diagnosis	10.0	250.00	250.00	**250.00**
Parasitology				
Direct microscopic examination	2.0	88.00	88.00	**88.00**
Culture techniques	4.0	189.00	189.00	**189.00**
Blood test	1.5		68.52	**68.52**
Medical microbiology				
Culture/isolation	7.0	174.00	174.00	**174.00**
Biochimemical identfication	5.0	365.00	365.00	**365.00**
Immunological identification	5.0		228.42	**228.42**
Virus culture	25.0	194.00	194.00	**194.00**
Food microbiology				
Standard 5 bacteria	40.0		1 827.32	**1827.32**
Specific bacteria (List, Salm...)	10.0	85.50	85.50	**85.50**
Chemistry (residues)				
HPLC	35.0	2400.00	2 400.00	**2400.00**
Gas chromatography	35.0	2400.00	2 400.00	**2400.00**
Spectrofluorescence	30.0		1 370.49	**1370.49**

IV.2 Human resources

Staff numbers will remain as they are today, with one veterinary officer and four laboratory technologists for the combined workforce of the CVL and the food safety division/laboratory. These staff numbers are reflected under the General Management budgets (CEC.I-6.A).

IV.3 Physical resources

As explained in the introduction to this pillar, the physical resources are deemed to be covered by the financial resources that are generated by the turn-over of samples based on private sector parity pricing. The overall budget of USD 200,000 per year, as previously discussed and reiterated again below, is supposedly sufficient to cover the depreciation and proper maintenance of equipment and buildings without prejudice to what the Government may allocate through the public investment budget as additional capital investments for the CVL.

IV.4 Financial resources

The total financial resources for the Laboratory pillar are presented inTable n°13 -.

The breakdown of the number of analyses that are expected to be conducted by the food safety laboratory leads to a budget of USD 107,000 (mainly for residue control), and of USD 93,000 for the main national laboratory (CVL).

Detail on the number and cost of testing for the different programmes is presented in Table n°11 - and Table n°12 -.

Following the approach presented in the introduction of this chapter, it is estimated that the projected workload would represent an estimate of USD 200,000 for the overall laboratory requirements of the DVSL.

To this must be added the provision of national, regional and international expertise including the introduction of the SILAB *laboratory information management system* (LIMS) for USD 50,000.

For quality-assurance, the operational cost of the quality-management system (QMS) is estimated at 5% of the overall laboratory cost and would represent USD 10,000 per year. Another USD 10.000 annually is foreseen as a delegated activity to pursue international ISO accreditation, as is currently already being done with the South African National Accreditation System (SANAS).

This brings the total cost for the laboratory resources to USD 270,000.

Table n°11 - Estimation of expected annual turn-over of analyses by year 5 of the investment programme (CVL and Food safety laboratory).

Type of analyses	Nb	Programmes												
		FMD	Rabies	Avian diseases	TBD	Ticks	Copro	bTB & Brucella	Bacteriology & Clostridium	ASF	CBPP	PPR	Salmonella	Food microbiology	Residues
Immunological tests															
Agglutination or haemagglutination	**2,000**							2,000							
Complement fixation	**300**										300				
ELISA and ELISA-based assays	**5,506**	875	375	1,656				2,000		300		300			
Immunofluorescence (dir. or indir.)	**53**		28						25						
Gene sequencing															
PCR	**0**														
Anatomical pathology															
Post mortem: large animals	**0**														
Post mortem: medium animals	**28**		28												
Post mortem: poultry	**156**			156											
Histological diagnosis	**0**														
Parasitology															
Direct microscopic examination	**8,695**				8,495	100	100								
Medical microbiology															
Culture/isolation	**62**								62						
Biochemical identification	**15**			15											
Food microbiology															
Specific bacteria (List, Salm...)	**3,042**			42									1,000	2,000	
Chemistry (residues)															
HPLC	**500**														500
Totals	**20,357**	875	431	1,869	8,495	100	100	4,000	87	300	300	300	1,000	2,000	500

Table n°12 - Estimation of expected annual turn-over (in terms of cost/revenue) per type of laboratory (CVL and Food safety laboratory)

Type of analyses	Nb	Programmes													
		FMD	Rabies	Avian diseases	TBD	Ticks	Copro	bTB & Brucella	Bacteriology & Clostridium	ASF	CBPP	PPR	Salmonella	Food microbiology	Residues
Immunological tests															
Agglutination or haemagglutination	**38,000**							38,000	0	0	0	0	0	0	0
Complement fixation	**5,400**							0	0	0	5,400	0	0	0	0
ELISA and ELISA-based assays	**368,902**	58,625	25,125	110,952	0	0	0	134,000	0	20,100	0	20,100	0	0	0
Immunofluorescence (dir. or indir.)	**15,158**	0	8,008	0	0	0	0	0	7,150	0	0	0	0	0	0
Gene sequencing															
PCR	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Anatomical pathology															
Post mortem: large animals	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Post mortem: medium animals	**15,350**	0	15,350	0	0	0	0	0	0	0	0	0	0	0	0
Post mortem: poultry	**35,634**	0	0	35,634	0	0	0	0	0	0	0	0	0	0	0
Histological diagnosis	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parasitology															
Direct microscopic examination	**765,160**	0	0	0	747,560	8,800	8,800	0	0	0	0	0	0	0	0
Medical microbiology															
Culture/isolation	**10,788**	0	0	0	0	0	0	0	10,788	0	0	0	0	0	0
Biochemical identfication	**5,475**	0	0	5,475	0	0	0	0	0	0	0	0	0	0	0
Food microbiology															
Specific bacteria (List, Salm...)	**260,091**	0	0	3,591	0	0	0	0	0	0	0	0	85,500	171,000	0
Chemistry (residues)															
HPLC	**1,200,000**	0	0	0	0	0	0	0	0	0	0	0	0	0	1,200,000
Totals	**2,719,957**	58,625	48,483	155,651	747,560	8,800	8,800	172,000	17,938	20,100	5,400	20,100	85,500	171,000	1,200,000

Table n°13 - Sub-Total for strengthening competencies for veterinary laboratory

SUB-TOTAL VETERINARY LABORATORIES						
Resource and cost lines	Current Number	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments						
Buildings ()						
Maintenance cost per (m2)		-	34	1		
Renovation cost per (m2)		-	503	5		
Building cost per (m2)		-	671	25		
Transport (Purchasing cost)						
Motorbikes		-	3,676	3		
Cars		-	19,118	5		
4x4 vehicles		-	31,618	5		
*Other specific vehicles for Vet. Laboratories**						
*Other specific vehicles for Vet. Laboratories**						
Staff office equipment set		-	3,088	2		
Other specific office equipment set		-	515	1		
Other specific equipment						
*Other equipment for Vet. Laboratories**						
*Other equipment for Vet. Laboratories**						
Sub-total Material investments						
Non material investments						
Training						
Specialised training (person-months/5 years)		-	3,750			
Continuing education (person-days/year)		-	27			
National expertise (days/5 years)		-	147			
International expertise (weeks/5 years)		-	8,838			
Special funds (/ 5 years) for …						50,000
Sub-total non material expenditure						**50,000**
Salaries						
Veterinarians		-	28,676			
Other university degree		-	18,382			
Veterinary para-professionals		-	8,088			
Support staff		-	2,941			
Sub-total Salaries						
Consumable resources						
Administration			20%			
Travel allowances						
staff within the country (person-days) / year		-	2			
drivers within the country (person-days) / year		-	2			
staff abroad (person-weeks) / year		-	4,288			
Transport costs						
Km or miles Motorbikes / year			0.05			
Km or miles cars / year			0.12			
Km or miles 4x4 vehicle / year			0.20			
*Other transport fees**						
*Other transport fees**						
Specific costs						
Targeted specific communication		-				
Consultation (number of 1 day meetings)		-				
Kits / reagents / vaccines		-				
*Other costs for Vet. Laboratories**					220,000	
*Other costs for Vet. Laboratories**						
Sub-total Consumable resources					**220,000**	
Delegated activities						
Sub-total Delegated activities						
Total in	***USD***				***220,000***	***50,000***
Total in	***Emalangeni***				***2,992,000***	***680,000***

V Strengthening competencies for general management and regulatory services

In this section, reference should be made to the Critical Competency Cards I.2, I.3, I.4, I.5, I.6, I.11, II.3, III.1, III.2, III.3, III.4, III.5, III.6, IV.1, IV.2 and IV.3.

V.1 General organisation of the Veterinary Services

The DVLS does not expect major changes for the upcoming 5 years in the management policy or structure of the VSD, nor in the way that services are provided in the field. The current situation allows for an adequate implementation of the official programmes throughout the country.

Nevertheless, several strategies and specific activities have been considered in this PVS Gap Analysis to strengthen the management, baseline operations and regulation of the Veterinary Services.

The implementation of the new VPH Act represents the biggest challenge in terms of management and regulatory services for the upcoming years, as it requires the development of a new and comprehensive veterinary public health programme.

V.1.A Technical independence

Technical independence is one of the fundamental principles of the quality of Veterinary Services; Article 3.1.2 of the OIE Terrestrial Animal Health Code defines that the VS must ensure that its staff is free from any commercial, financial, hierarchical, political or other pressures which might influence their judgment or decision making process.

The VSD will continue to assure that technical decisions are based on scientific evidence, in line with SPS principles and OIE standards. Improvements foreseen in this PVS Gap Analysis in terms of operational budget, specialised training, data management, consultation with stakeholders and other areas will support this critical point.

V.1.B Coordination

The Veterinary Services of Swaziland have an efficient and effective hierarchical organisation from central through to field level that allows for adequate implementation of the official programmes and assures good disease surveillance throughout the country. The VSD is well staffed with competent and committed professionals, who work within a clear operational framework and under a strong direct chain of command from national to field level.

Internal coordination will be strengthened by the increased provision for operational funding and for investments in new facilities and equipment allocated in the different technical pillars (Trade, VPH, AH, Laboratory). Additionally, the migration from paper-based management to a computerised unified database that will connect the different areas of the VSD will certainly facilitate information flow, analysis and reporting, allowing for more efficient coordination.

The DVLS has also the proven ability for effective external coordination in regular activities with the smallholder farmers and with the beef exporting industry, and especially in times of emergencies. This kind of coordination will be key for the success of the new programmes included in this PVS Gap Analysis for the next five years. The implementations of the VPH Act would not be possible without an active interaction and coordination with the MoH and the local governments, as well as any other authorities involved in the different value chains.

V.1.C Veterinary practice organisation and policy

The *Veterinary Council of Swaziland* (VCS) is established under the Veterinary Surgeons Act (8/1997). As identified in the OIE PVS Evaluations, the current VSC does not fully comply with OIE recommendations with regard to the "autonomous regulatory body" that the VSB is expected to be. However, for the time being, it is not possible to address that point.

The DVLS will engage in the revision of the Veterinary Surgeons Act (8/1997), to extend the mandate of the VCS to also regulate veterinary para-professionals as recommended by the OIE. This revision should take into account OIE standards for VSB.

V.1.D Official delegation

At present, only a very low number of private veterinarians are established in Swaziland; therefore, little room exists to implement a policy of delegation of official activities or programmes.

Mandatory rabies vaccination is currently allowed to be performed by private practitioners; however, this does not represent any cost for the DVS.

Dip Tank Attendants are members of the community who are entrusted to assist VAs in the organisation and performance of cattle dipping as part of the mandatory tick-control programme. Although they are not veterinarians, this activity was considered by the PVS Gap Analysis team as a sort of delegated official task, and consequently the allowance paid by the VSD was included in the PVS Gap Analysis budget under the Animal Health Pillar. The annual cost was estimated to be USD 29,000, considering USD 45 per DTA per month for 650 active dip tanks.

V.2 Cross-cutting competencies of the VS

The VSD have strong core competencies with well-qualified professional staff, good coordination and management, many communication and consultation activities, a high level of official representation and solid legislation.

Nevertheless, within this analysis, specific opportunities were identified to strengthen their core competencies, to deliver existing programmes more effectively, and to support the projected expansion of programmes and operations.

V.2.A Qualification of VS staff

One of the most important strategies projected by the DVLS to promote the development of the VSD to cope with the technical requirements of the ambitious progressions set for the different technical areas over the upcoming five years is to develop an effective training plan to improve the skills and competencies of the staff. Specific specialised training for veterinarians has been targeted for the following specific topics:

- Development of specialised competences in disease control and surveillance in poultry, wildlife, and bees;
- Specialised 6 month training in food safety inspection in the *Meat Inspection Training Institute* (MITI), in the Republic of Botswana for 6 veterinarians.

The DVLS will continue with its current policy of financing the initial training 2 veterinary students per year in foreign veterinary schools.

Veterinary inspection at the borders is currently conducted by Cordon Guards with minimal technical training. Their competencies will be strengthened by providing specific training at the VFTC that would allow some of them to be promoted to

inspector level (veterinary para-professional level) from their current support staff status.

A formal programme of continuing education should be developed to improve the technical and operational skills of all staff of the VSD. Different needs for continuing education of staff for the next 5 years have been identified in the different pillars and can be found in the specific Critical Competency Cards. Major topics are related to the extended animal health programmes, the implementation of the VPH Act, the introduction of a computerised management system, and the extension of the SLITS to new species.

V.2.B Management of operation and resources

Management of operations and resources could be improved by upgrading the paper-based reporting and management system and progressively shift to a fully computerised system and database. The DVLS projects a complete shift that would integrate the different areas under its mandate. Animal and producer registers and movement records of animals already existing in the SLITS database represent a valuable resource for the VS information and management systems to build on; consequently it would be rational to ensure full compatibility and integration of the new database with SLITS.

There is a specific interest of the DVLS to improve border control by developing an electronic centralised database to improve the exchange of information between the BIPs and the central level, as well as with the importers and exporters. The system should support issuing of import permits and certificates, and potentially for electronic certification to be implemented in a near future. This computerised system should be developed in close cooperation with customs authorities to allow for a single unified system to be implemented at entry points.

V.2.C Communication

Some active communication initiatives have been conducted so far by the VSD; however, there are few or no formal communication mechanisms, and there is no defined communication strategy.

In light of the projected developments for the next five years, communication will be a key tool to engage producers, industry, the public, politicians, community leaders, and others in the laborious processes such as the implementation of the VPH Act and the expansion or the SLITS to new species, the success of which will certainly depend on their engagement and support.

The strategy for improvement of communications is to develop a comprehensive programme identifying key target groups by sector and topic. The best use of the media available should be determined for each communications task including the use of TV, radio and print media, and especially the development of a VSD website.

To deliver an effective communication programme a specialist (university degree) should be recruited for the task of defining and implementing the communications strategy. To set the basis for this, the VSD will request the external support of a national expert for a limited period of time.

V.2.D Consultation with stakeholders and joint programmes

At present, there are limited opportunities for VSD to meet with many sectors of the public. The main encounter for consultation and communication are the *Dip-Tank Committees* (DTC) which serve as conduit to cattle and goat owners/herders, and hold regular meetings to share information and concerns. These activities will be maintained but VSD will also develop a consultation programme with increased focus on coordination and collaboration across different sectors and agencies.

As stated for the communication strategy, the challenging projects for the next five years such as the implementation of the VPH Act, the expansion of the SLITS to new species, and the modernization of the import/export procedures and border control will require active participation and engagement of producers, industry, politicians, community leaders, and others. For this, they should be consulted and included in the process of defining procedures and drafting new regulations.

The new programme of consultations should be organised and formalised, with scheduled meetings with defined terms of reference, and should produce formal reports, including the details of participants, discussion and decisions taken.

V.2.E Official representation

The DVSL has a sound track record as an active member of OIE, Codex, SADC, SPS, AU-IBAR, and SACU and is well represented at regional and international meetings. The VSD will continue to actively engage in these international forums.

As described under the Trade Pillar, the DVLS will promote an active role for the VSD in the promotion and negotiation process for accession to new export markets, such as honey to the European Union, or poultry and beef to countries in the Middle East. For this, international technical missions will be conducted to establish direct contact with the other countries' competent authorities.

V.2.F Legislation

Naturally, most of the improvements projected during this PVS Gap Analysis for the next five years would require the review or development of legislation and regulations.

The VSD has the technical capability to conduct these modifications with the support of the MoA. Nevertheless, taking into account the major work that would be required to implement the VPH Act, that would represent the full design of the new food safety system, and the drafting and adoption of the required regulations and procedures, the VSD will request the support of external experts, both national and international.

Also, as mentioned above, the revision of the Veterinary Surgeons Act (8/1997), to extend the mandate of the VCS to also regulate veterinary para-professionals will be an important strategic action.

V.3 Human resources

The analysis under this pillar comprises all staff at VSD headquarters (including CVL and the Food safety laboratory) and staff at the Regional and Sub regional Veterinary Offices directly involved in administrative and management activities (including the management of technical programmes). The human resources required to provide field services, border control and inspection, and veterinary public health inspections are included in the specific pillars (Trade, Veterinary Public Health, Animal Health).

The human resources cost estimated for this pillar covers 11 veterinarians, 15 other university graduates, 19 veterinary para-professionals and 112 support staff, distributed across the VSD headquarters and the eight Regional and Sub-Regional Veterinary Offices. Detail of the distribution of this staff is provided in Table n° 14 below.

The view of the DVLS, and from the PVS Evaluation, is that the present number of staff is appropriate and there is no imperative need to increase the staff numbers. Moreover, there is no intention to make any changes in the organisational structure. One special consideration is to incorporate a new graduate specialist on communication that would be key to achieve the objectives in this field for the upcoming years (CC.III-1), as this particular expertise is not covered by the present staff.

The implementation of the new VPH Act will most probably represent an increased workload at central level that would eventually require additional staff. Present staff, with the support of temporary external expertise, is considered to be sufficient to cope with the drafting of rules and regulations, and the initial stage of implementation. A new evaluation should be conducted once the new VPH strategy is fully developed and implemented.

Table n°14 - Estimation of the number of staff required to provide general management and regulatory oversight services

			Human resources (Full Time Equivalent)			
PVS Critical competency	Positions identified	No of administrative levels	Veterinarians	Other university degree	Veterinary para-professionals	Support staff
I-6.A	**Internal coordination (chain of command)**		**11**	**14**	**19**	**112**
	Central level		**11**	**10**	**14**	**60**
	General Directorate		2	0	0	1
	DVLS		1			1
	DDVS		1			
	Animal health		6	8	10	53
	SVO FS		2		3	13
	Epidemio		2	1	4	2
	VFTC		1	4	1	24
	Laboratorie (CVL)		1	3	2	14
	Veterinary Public Health		3	2	4	6
	VPH		3	2	4	6
	Field level of coordination		**0**	**4**	**5**	**52**
	1st level of field coordination	4	0	4	5	24
	Regional Veterinary offices			1	1	6
	2nd level of field coordination	28	0	0	0	28
	Subregional veterinary offices					1

Considering that there is no Veterinary University in the country, and recognizing the importance of maintaining a number of recently graduated veterinarians, the government of Swaziland funds the initial training of 2 new veterinarians per year in internationally recognised veterinary faculties or schools. Although these funds are provided by pre-service scholarships granted by the Ministry of Labour, it has been included in the PVS Gap Analysis budget as it is considered a key activity to sustain the development of the Veterinary Services of the country. This represents USD 500,000 for the whole five-year programme (CC I.2.A). Also, USD 143,000 have been included in the budget to provide for the initial training of at least 36 Cordon Guards to become Veterinary Assistants (CC I.2.B).

Continuing education (CE) is essential for the continuous development of staff, to keep up to date knowledge of professionals and to incorporate new specialised skills. This would be achieved through the development of a comprehensive programme of continuing education. In terms of funding, the PVS Gap Analysis budget includes USD 50,000 to provide 5 days of CE per year for all veterinarians and veterinary para-professionals (CC I.3).

Additionally, post-graduate level training for veterinarians in targeted strategic areas is foreseen and included in the budget at a total of USD 120,000 over the 5-year period (CC I.2.A). This budget should allow covering all expenses for the training of the professionals at international reference centres, including training fees and travel expenses for:

- Development of specialised competences in disease control and surveillance in poultry, wildlife, and bees; estimated at 20 month per person over the 5 year period.
- Specialised 6 month training in food safety inspection in MITI for the 6 vets. Estimated at USD 8,000 each.

V.4 Physical resources

The infrastructure of the VSD Headquarters is considered to be sufficient and in good condition, and no major modification is foreseen, so that the assessment of the physical resources required for this pillar by the PVS Gap Analysis Team is quite minor. That of the regional and subregional offices was already included in the analysis of the field network.

For the calculation of costs, physical resources for this pillar were mainly estimated based on the number of staff:

- Based on an allocation of 10 m^2 for each staff member, the cost includes the maintenance of 350 m^2 of office space.
- 35 'office equipment sets' (desk, office chair, telephone, computer and standard peripherals).
- Vehicles: 5 motorbikes and 13 4x4 for official activities of headquarter staff, as well as 4 trucks (FS) and 1 bus/coach (VFTC).

Table n°15 - Detail of the distribution of physical resources (headquarters)

Positions identified	Human resources (Full Time Equivalent)				Physical resources							
									Other specific equipment			
	Veterinarians	Other university degree	Veterinary para-professionals	Support staff	Buildings	Motorbikes (#)	4x4 Vehicles (#)	Staff office equipment set (#)	Designation or Description	Required (#)	Unit cost	Total cost
Internal coordination (chain of command)	**11**	**14**	**19**	**112**	**350**	**5**	**13**	**35**				**320,000**
Central level	**11**	**10**	**14**	**60**	**350**	**5**	**13**	**35**				**320,000**
General Directorate	2	0	0	1	20	0	2	2				-
DVLS	1			1	10		1	1				-
DDVS	1				10		1	1				-
Animal health	6	8	10	53	240	5	7	24				**320,000**
SVO FS	2		3	13	50		2	5	Truck	4	60,000	240,000
Epidemio	2	1	4	2	70		2	7				-
VFTC	1	4	1	24	60	5	2	6	Bus	1	80,000	80,000
Laboratorie (CVL)	1	3	2	14	60		1	6				-
Veterinary Public Health	3	2	4	6	90	0	4	9				-
VPH	3	2	4	6	90		4	9				-

V.5 Financial resources

The total financial resources for the Management pillar are presented in Table n° 16.

This pillar includes resources for administrative and management activities (including management of technical programmes) conducted at headquarters and at the Regional and Sub-Regional Veterinary Offices. As for the human and physical resources sections above, resources directly linked to border control, field services, veterinary public health and laboratories are included in the previous pillars *(Trade, Veterinary Public Health, Animal Health* and *Laboratories).*

A special fund of USD 500,000 has been allocated for the start-up of the integrated VSD database.

Specific funds have been allocated for the development of a comprehensive communication programme for the VSD. External expertise would be contracted to assist in the drafting of the communication strategy, estimated at 2-week of a national consultant (CC III.1). Additionally, USD 20,000 per year have been included in the annual budgets to provide for communication materials and activities covering all topics identified in this report (CC III.1).

Several of the main points projected in this PVS Gap Analysis (e.g. the expansion of SLITS, implementation of the new VPH Act, new databases) will require thorough consultation with different stakeholders. To this end, an organised consultation programme will have to be developed and implemented from the very beginning. Funds are earmarked to cover 3 one-day consultation meetings per year, estimated at USD 1,000 per meeting, including the per diems and room rental for participants (CC III.2).

The annual expenditure for staff travelling abroad to officially represent the VSD in international fora (e.g. OIE, SADC) is estimated at USD 60,000; this represents 14 person-weeks per year.

Table n°16 - Sub-Total for strengthening general management and regulatory services

SUB-TOTAL MANAGEMENT OF VETERINARY SERVICES						
Resource and cost lines	Current Number	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments						
Buildings ()		350				
Maintenance cost per (m2)		350	34	1	11,900	
Renovation cost per (m2)		-	503	5		
Building cost per (m2)		-	671	25		
Transport (Purchasing cost)						
Motorbikes		5	3,676	3	6,127	
Cars		-	19,118	5		
4x4 vehicles		13	31,618	5	82,207	
*Other specific vehicles for management of VS**					24,000	120,000
*Other specific vehicles for management of VS**					8,000	40,000
Staff office equipment set		35	3,088	2	54,040	
Other specific office equipment set		-	515	1		
Other specific equipment						
*Other equipment for management of VS**						
*Other equipment for management of VS**						
Sub-total Material investments					**186,273**	**160,000**
Non material investments						
Training						
Initial training						642,956
Specialised training (person-months/5 years)		32.0	3,750			120,000
Continuing education (person-days/year)		1,932.5	27		51,276	
National expertise (days/5 years)		14.0	147			2,058
International expertise (weeks/5 years)		-	8,838			
Special funds (/ 5 years) for …						500,000
Sub-total non material expenditure					**51,276**	**1,265,014**
Salaries						
Veterinarians	18.0	11.0	28,676		315,436	
Other university degree		15.0	18,382		275,730	
Veterinary para-professionals	279.0	19.0	8,088		153,672	
Support staff		112.0	2,941		329,392	
Sub-total Salaries					**1,074,230**	
Consumable resources						
Administration			20%		214,846	
Travel allowances						
staff within the country (person-days) / year		-	2			
drivers within the country (person-days) / year		-	2			
staff abroad (person-weeks) / year		14	4,288		60,032	
Transport costs						
Km or miles Motorbikes / year		18,000	0.05		901	
Km or miles cars / year			0.12			
Km or miles 4x4 vehicle / year		325,000	0.20		65,096	
*Other transport fees**					20,000	
*Other transport fees**						
Specific costs						
Targeted specific communication		-				
Consultation (number of 1 day meetings)		3			3,000	
Kits / reagents / vaccines		-				
*Other costs for VS management**						
*Other costs for VS management**						
Sub-total Consumable resources					**363,875**	
Delegated activities						
Sub-total Delegated activities						
Total in	***USD***				***1,675,654***	***1,425,014***
Total in	***Emalangeni***				***22,788,895***	***19,380,190***

VI Resources analysis

Table below presents the overall resources required and the estimated global costs for the 5-year upgrading plan for the VSD. The final amount, in total, is just above USD 50 million and includes both activities that are currently carried out and new improvements that will make significant progress of the VSD in terms of compliance with OIE international standards.

The annual budget is estimated at USD 9.5 million, which represents an increase of 35% compared with the budget implemented in 2014, which was USD 7 million.

It should be noted that the cost of the VS estimated by the PVS Gap Analysis comprises all costs of VS activities, and takes into account all improvements discussed under the different pillars, but it does not discuss nor suggests the origin of the funds. For example, it includes some items that are currently not considered as part of the VSD budget.

Table n°17 - Total budget over 5 years, including the exceptional (investment) budget.

TOTAL COST									
Resource and cost lines	Current Number	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**	**Total cost for 5 years**	**% annual cost**	**% total cost for 5 years**
Material investments									
Buildings ()	-	21,953							
Maintenance cost per (m2)	-	14,628	34	1	497,366		2,486,828	5.3%	4.8%
Renovation cost per (m2)	-	3,362	503	5	338,257		1,691,287	3.6%	3.3%
Building cost per (m2)	-	3,962	671	25	106,351	2,127,016	2,658,770	1.1%	5.1%
Transport (Purchasing cost)									
Motorbikes	-	261	3,676	3	319,812		1,599,060	3.4%	3.1%
Cars	-	36	19,118	5	135,738		678,689	1.4%	1.3%
4x4 vehicles	-	21	31,618	5	132,796		663,978	1.4%	1.3%
Other vehicles					24,000	120,000	240,000	0.3%	0.5%
Other vehicles					8,000	40,000	80,000	0.1%	0.2%
Staff office equipment set	-	76	3,088	2	151,312		756,560	1.6%	1.5%
Other specific office equipment set	-	241	515	1	124,115		620,575	1.3%	1.2%
Other specific equipment									
Other equipment					183,347	900,735	1,817,471	1.9%	3.5%
Other equipment									
Sub-total Material investments					**2,021,093**	**3,187,752**	**13,293,218**	**21.4%**	**25.7%**
Non material investments									
Training									
Initial training						642,956	642,956		1.2%
Specialised training (person-months/5 years)	-	32.0	3,750			120,000	120,000		0.2%
Continuing education (person-days/year)	-	1,932.5	27		51,276		256,378	0.5%	0.5%
National expertise (days/5 years)		63.0	147			9,261	9,261		0.0%
International expertise (weeks/5 years)		11.0	8,838			97,218	97,218		0.2%
Special funds						561,350	561,350		1.1%
Sub-total non material expenditure					**51,276**	**1,430,785**	**1,687,163**	**0.5%**	**3.3%**
Salaries									
Veterinarians	18.0	25.5	28,676		731,238		3,656,190	7.8%	7.1%
Other university degree	14.0	15.0	18,382		275,730		1,378,650	2.9%	2.7%
Veterinary para-professionals	279.0	361.0	8,088		2,919,768		14,598,840	31.0%	28.2%
Support staff	366.0	337.0	2,941		991,117		4,955,585	10.5%	9.6%
Sub-total Salaries					**4,917,853**		**24,589,265**	52.1%	47.5%
Consumable resources									
Administration			20%		983,571		4,917,853	10.4%	9.5%
Travel allowances									
staff within the country (person-days) / year	-	8	2		16		80	0.0%	0.0%
drivers within the country (person-days) / year	-	-	2						
staff abroad (person-weeks) / year	-	18	4,288		77,184		385,920	0.8%	0.7%
Transport costs									
Km or miles Motorbikes / year		939,600	0.05		47,049		235,245	0.5%	0.5%
Km or miles cars / year		887,500	0.12		103,694		518,470	1.1%	1.0%
Km or miles 4x4 vehicle / year		525,000	0.20		105,154		525,772	1.1%	1.0%
Other transport fees					20,000		100,000	0.2%	0.2%
Other transport fees									
Specific costs									
Targeted specific communication	-	-							
Consultation (number of 1 day meetings)	-	3			3,000		15,000	0.0%	0.0%
Kits / reagents / vaccines	-	-			66,100		330,500	0.7%	0.6%
Other costs					992,059		4,960,294	10.5%	9.6%
Other costs					16,000		80,000	0.2%	0.2%
Sub-total Consumable resources					**2,413,827**		**12,069,134**	25.6%	23.3%
Delegated activities									
Specific delegated activities					28,676		143382	0.3%	0.3%
Specific delegated activities									
Sub-total Delegated activities					**28,676**		**143,382**	**0.3%**	**0.3%**
Total in	***USD***				***9,432,725***	***4,618,537***	***51,782,163***	***100%***	***100%***
Total in	***Emalangeni***				***128,285,064***	***62,812,098***	***704,237,419***		

VI.1 Human resources analysis

The total requirements are estimated at 738 staff, the majority being employed in the animal health field network, and in the maintenance of fences. This includes 26 veterinarians.

Table n°18 - Total requirements in terms of human resources

Total estimation of the staffing required														
	Trade		Veterinary Public Health		Animal health		Veterinary laboratories		Delegated activities		Management of Veterinary Services		Total	
	Current	Required	Current	Required	Current	Required	Current	Required	Current	Required	Current	Required	Current	Required
Veterinarians				7		8					18	11	18	26
Other university degree											14	15	14	15
Veterinary para-professionals		47		23		272					279	19	279	361
Support staff		223		2							366	112	366	337
TOTAL		270		31.5		280					677	157	677	738.5

Analyses performed in the different pillars have shown that present staff numbers is in general appropriate and there is no imperative need to increase the staff numbers. This is in line with the views of the DVLS, and the findings of the May 2015 OIE PVS Evaluation (follow-up).

The biggest challenge in terms human resources will be the requirements generated for the implementation of the VPH Act. This will represent an important increase in the workload of VSD staff, estimated at 6.5 FTE veterinarians and 22 FTE veterinary para-professionals. Different strategies may be considered to assign personnel for this new mandate.

VI.2 Physical resources analysis

Generally the existing physical resources of the VSD are in good form and are sufficient for the VSD needs. In general terms, the mission did not perform a detail analysis of the physical resources; they were calculated, in general, based on the number of staff and/or offices.

Even when no major modification of the existing resources is foreseen, this PVS Gap Analysis includes the value of existing resources, and its maintenance costs. The details of the physical resources included in the estimated cost are presented in the tables below.

Table n°19 - Total requirements in terms of physical resources.

Total estimation of physical resources required												
	Trade		Veterinary Public Health		Animal health		Veterinary laboratories		Management of Veterinary Services		Total	
	Current	Required	Current	Required	Current	Required	Current	Required	Current	Required	Current	Required
Buildings ()		**3,343**				**18,260**				**350**		**21,953**
Maintenance cost per (m2)		2,714				11564				350		14,628
Renovation cost per (m2)		14				3348						3,362
Building cost per (m2)		614				3348						3,962
Transport (Purchasing cost)												
Motorbikes		7		16		233				5		261
Cars		-		8		28						36
4x4 vehicles		-				8				13		21
Other		-										
Other		-										
Staff office equipment set		3	-	2	-	36	-			35		76
Other specific office equipment set		233				8						241
Other specific equipment in (ref. currency)		180,147				3,200						183,347

The total estimated cost of the physical resources is USD 2 million per year for the 5-year period, plus an exceptional cost of USD 3.2 million.

The main costs that were included correspond to buildings and cordon fences (shown in the table under *"other specific equipment")*. In terms of buildings, the biggest proportion corresponds to staff housing and regional and sub-regional offices, some of which exist already and should be just maintained, others should be renovated and some additional, newly built.

The mission did not specify needs of minor equipment that could be needed for the implementation of activities (e.g. cloths, knives, sampling kits) because they are covered either under the administration cost applied to every pillar (estimated at 20% of payroll), or by the cost of analyses for laboratory testing.

VI.3 Financial resources analysis

The total estimated cost of this PVS Gap Analysis is USD 51 M, including USD 9.5 million per year for 5-years, plus USD 5 million as an (once-off) exceptional cost.

The animal health pillar concentrates 55 % of the costs, both annual and exceptional, what is logical as it includes the whole VSD field services and field operations.

The VPH Pillar, where the major changes are foreseen due to the implementation of the new VPH Act, would still represent less than 10% of the budget.

VI.3.A Operational funding

The table below presents a summary of the annual operational cost that would be required for the implementation strategies and activities projected in this PVS Gap Analysis for a 5-year period.

The cost for operational funding is estimated to be USD 7.4 million, including USD 5 million for staff salaries (67% of the operational cost) and USD 2.5 million for 'consumable resources' (32 % of the operational cost). Salaries are the main cost for the VSD, the represent 50 % of the overall budget.

The PVS Gap Analysis includes a general budget line for the cost of administration and general expenses, such as electricity, telephone, water, paper, printer toner, etc. To simplify calculations, this cost is estimated at 20% of the total salaries as a standard. In this case it adds up to almost USD 1 million, and represents the second most important operational cost, at 13,3 % of the total.

In accordance with the approach of this PVS Gap Analysis, costs of laboratory diagnosis required to complete official programmes are included as part of the operational costs, representing USD 220,000 per year.

Around 10% of the operational funding is directed to the provision of acaricide and vaccines for the animal disease programmes.

Transport costs, including fuel and maintenance of vehicles, represent only 3.7 % of the operational costs, which seems in accordance with the small size of the country.

Table n°20 - Budgetary analysis of the annual operational costs, i.e. excluding material investments/acquisitions of equipment (breakdown per pillar).

Analysis of the annual operational cost (CC I-8)							
	Trade	Veterinary Public Health	Animal Health	Veterinary laboratories	Management of Veterinary Services	Total operational cost	%
Salaries							
Veterinarians		186,394	229,408		315,436	731,238	9.87
Other university degree					275,730	275,730	3.72
Veterinary para-professionals	380,136	186,024	2,199,936		153,672	2,919,768	39.39
Support staff	655,843	5,882			329,392	991,117	13.37
Continuing education					51,276	51,276	0.69
Sub-total human resources	**1,035,979**	**378,300**	**2,429,344**		**1,125,506**	**4,969,129**	**67.04**
Administration	207,196	75,660	485,869		214,846	983,571	13.27
Travel allowances	17,152		16		60,032	77,200	1.04
Transport costs	1,262	24,791	163,847		85,997	275,897	3.72
Specific costs							
Communication							
Consultation					3,000	3,000	0.04
Specific kits /reagents / vaccines			66,100			66,100	0.89
Other			772,059	220,000		992,059	13.39
Other			16,000			16,000	0.22
Sub-total consumable resources	**225,610**	**100,451**	**1,503,891**	**220,000**	**363,875**	**2,413,827**	**32.57**
Sub-total delegated activities			**28,676**			**28,676**	**0.39**
TOTAL OPERATIONAL COST	**1,261,589**	**478,751**	**3,961,911**	**220,000**	**1,489,381**	**7,411,632**	**100.00**

VI.3.B Emergency funding

There is no specific 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.

Mobilisation of funds in response to sanitary emergencies has shown to be effective, and it is not under the mandate of the DVLS to modify this procedure, consequently there is no modification projected in this field. The main activities in the next five years will be directed to update and improve contingency plans for disease response. A programme of simulation exercises will be undertaken.

VI.3.C Capital investment

Projected material investment for this 5-year project is directed mainly to the maintenance of the existing fence network (12%), the provision of transport means (22%) and the construction, maintenance, and renewal of buildings (46 %).

A big proportion of the investment in buildings is for staff housing. Indeed, taking due care of official staff in remote areas of the country such as border posts, regional cordon camps or field offices, is critical for any VS to assure adequate contact with the animal population to prevent the incursion of diseases, to conduct disease surveillance and to be able to promptly react to any contingency. To achieve this in the case of Swaziland, it is critical for the VSD to be able to post assign staff to these remote locations, and hence, providing adequate housing is crucial.

Even when in the case of Swaziland the non-material investments don't have a very significant impact in the PVS Gap Analysis budget, some items included are critical for the projected strategies and activities. Initial training of veterinarians and veterinary para-professionals, along with (post-graduate) specialised training is key and represents 5% of the required capital investments.

Swaziland has shown to have high-level veterinary services, and consequently the existing staff would handle most of the technical developments. In this sense, a very small investment would be required for specially pinpointed external consultancies (less than 1% of investments).

The projected investments are completed by a "special fund" of USD 500,000, representing 3.8% of the investments that will be directed to the development of an integrated VSD database and information system.

Table n°21 - Budgetary analysis of the capital investment requirements (breakdown per pillar).

Analysis of capital investment required (CC I-10)													
	Trade		Veterinary Public Health		Animal Health		Veterinary laboratories		Management of Veterinary Services		Total capital investment		% over 5 years
	Annual	Exceptional	Annual	Exceptional	Annual	Exceptional	Annual	Exceptional	Annual	Exceptional	Annual	Exceptional	
Buildings	110,229	329,810			819,845	1,797,206			11,900		941,974	2,127,016	46.43
Transport	8,577		48,282		443,152				120,333	160,000	620,345	160,000	22.15
Staff office equipment set	4,632		37,056		55,584				54,040		151,312		5.14
Other office equipment set	119,995				4,120						124,115		4.21
Other specific equipment	180,147	900,735			3,200						183,347	900,735	12.34
Sub-total Material investment	**423,580**	**1,230,545**	**85,338**		1,325,901	1,797,206			**186,273**	**160,000**	**2,021,093**	**3,187,752**	**90.28**
Initial training										642,956		642,956	4.37
Specialised training										120,000		120,000	0.81
National expertise				7,203						2,058		9,261	0.06
International expertise		35,352		61,866								97,218	0.66
Special funds		10,000				1,350		50,000		500,000		561,350	3.81
Sub-total Non-Material expenditure		**45,352**		**69,069**		**1,350**		**50,000**		**1,265,014**		**1,430,785**	**9.72**
TOTAL CAPITAL INVESTMENT	**423,580**	**1,275,897**	**85,338**	**69,069**	1,325,901	1,798,556		**50,000**	**186,273**	**1,425,014**	**2,021,093**	**4,618,537**	**100.00**

VI.4 Profitability and sustainability

The PVS Evaluation conducted in Swaziland in May 2015 showed a high level of compliance of the VSD with the OIE international standards in most areas, consequently it would be attainable to achieve the level of improvement laid out in this report to work towards the national priorities. Nevertheless, investment is required to strengthen the national veterinary services in order to achieve the target of developing new export markets, to enact the new VPH Act and to improve animal health and disease surveillance.

It is important to highlight that this PVS Gap Analysis includes all costs of the "Veterinary Services" as per OIE definition, some of which are not actually under the budgetary allocation of the VSD in Swaziland (e.g. funding of veterinary students abroad or the acquisition of vehicles and other types of capital investments.). This should be kept in mind when comparing present and estimated future budget, as this difference would be certainly smaller.

VI.4.A Analysis related to national economy and budget

The cost of the national veterinary services, as estimated in the PVS Gap Analysis, including all improvement and extended operations required to achieve the objectives identified by the DVLS for the upcoming 5 years does not represent a major change from the present budget of the VSD.

The table below shows some ratios that serve to illustrate the difference between the current budget and that resulting from this PVS Gap Analysis.

The cost of the Veterinary Services does not represent a significant part of the National GDP, although it is currently 3% of the agricultural GDP, whereas the projected one would be 5%.

In the case of Swaziland, where export of animals or animal products does not represent the main objective of production and does not have a major economic impact, the comparison of the cost of VS against the value of exports is not a useful indicator. On the other hand, it is valuable to highlight that it represents at present only 11% of the Livestock GDP, and that this would increase to 15% with the proposed improvements. In this regard it should be highlighted that while protecting the national herd from the potential entry of diseases, Veterinary Services are protecting this capital and assuring its productivity.

Table n°22 - Analysis of the gap-analysis budget (cost of the VS) in comparison to national and livestock economy parameters

	Current cost of the VS (ref. currency)	*Annual cost of the PVS Gap analysis (ref. currency)*
Annual amount	7,014,251	9,432,725
Cost of VS / National GDP	0%	0%
Cost of VS / Agriculture GDP	3%	5%
Cost of VS / Livestock GDP	11%	15%
Cost of VS / Total value of national herd		
Cost of VS / Value of exported animal and animal products	72%	96%
Cost of VS / Value of imported animals and animal products	17%	23%
Cost of VS / VLU	9.30	12.50
Cost of VS / National budget (current)	0.60%	1%
Cost of VS / Agriculture and Livestock budget (current)	17.77%	24%

VI.4.B Analysis of distribution per pillar

The two tables below present the distribution per pillar of the total PVS Gap Analysis budget.

The estimated annual cost is distributed as 18% for *Trade*, 6% for *Veterinary public health,* 56% for *Animal health,* 2.3% for *Laboratories* and 17.8 % for the *General management.*

The total estimated cost, including the annual and exceptional cost, is distributed in a similar way: 19% for *Trade*, 6% for *Veterinary public health*, 55% for *Animal health,* 2% for *Laboratories* and 19 % for the *General management.*

Animal health takes the highest proportion of estimated costs mainly because it includes the whole Field Services network, including staff, housing, offices, transport and all operational costs. This network is the basis for the service delivery and to provide for adequate disease surveillance and rapid response. These are foundation VS' activities and many other areas benefit from them, either directly or indirectly; for example, they support the international recognition required to trade and protect public health from zoonosis.

Table n°23 - Budgetary analysis of the annual costs (breakdown per pillar).

ANNUAL COST PER PILLAR						
Resource and cost lines	Trade	Veterinary Public Health	Animal health	Veterinary laboratories	Management of Veterinary Services	**Total**
Material investments						
Sub-total Material investments	423,580	85,338	1,325,901	-	186,273	2,021,093
%	*21.0%*	*4.2%*	*65.6%*		*9.2%*	*100%*
Non material investments						
Sub-total non material expenditure	-	-	-	-	51,276	51,276
%					*100.0%*	*100%*
Salaries						
Sub-total Salaries	1,035,979	378,300	2,429,344	-	1,074,230	4,917,853
%	*21.1%*	*7.7%*	*49.4%*		*21.8%*	*100%*
Consumable resources						
Sub-total Consumable resources	225,610	100,451	1,503,891	220000	363,875	2,413,827
%	*9.3%*	*4.2%*	*62.3%*	*9.1%*	*15.1%*	*100%*
Delegated activities						
Sub-total Delegated activities	-	-	28,676	-	-	28,676
%			*100.0%*			*100%*
Total in USD	**1,685,169**	**564,090**	**5,287,813**	**220,000**	**1,675,654**	**9,432,725**
%	*17.9%*	*6.0%*	*56.1%*	*2.3%*	*17.8%*	*100%*
Total in Emalangeni	**22,918,295**	**7,671,620**	**71,914,253**	**2,992,000**	**22,788,895**	**128,285,064**

Table n°24 - Total budget over 5 years, including the exceptional (investment) budget (breakdown per pillar).

TOTAL COST (5 annual cost + exceptional cost) PER PILLAR						
	Trade	Veterinary Public Health	Animal health	Veterinary laboratories	Management of Veterinary Services	**Total**
Material investments						
Sub-total Material investments	3,348,446	426,692	8,426,713	-	1,091,367	13,293,218
%	*25.2%*	*3.2%*	*63.4%*		*8.2%*	*100%*
Non material investments						
Sub-total non material expenditure	45,352	69,069	1,350	50,000	1,521,392	1,687,163
%	*2.7%*	*4.1%*	*0.1%*	*3.0%*	*90.2%*	*100%*
Salaries						
Sub-total salaries	5,179,895	1,891,500	12,146,720	-	5,371,150	24,589,265
%	*21.1%*	*7.7%*	*49.4%*		*21.8%*	*100%*
Consumable resources						
Sub-total Consumable resources	1,128,048	502,257	7,519,454	1,100,000	1,819,375	12,069,134
%	*9.3%*	*4.2%*	*62.3%*	*9.1%*	*15.1%*	*100%*
Delegated activities						
Sub-total Delegated activities	-	-	143,382	-	-	143,382
%			*100.0%*			*100%*
Total in USD	**9,701,741**	**2,889,518**	**28,237,620**	**1,150,000**	**9,803,284**	**51,782,163**
%	*19%*	*6%*	*55%*	*2%*	*19%*	*100%*
Total in Emalangeni	**131,943,679**	**39,297,441**	**384,031,634**	**15,640,000**	**133,324,665**	**704,237,419**

CONCLUSION

Following the PVS Evaluation done in May 2015, a PVS Gap Analysis mission was conducted in Swaziland in November 2015 by a team of independent OIE certified experts. The mission was well organised and chaired by the Director of Veterinary and Livestock Services (DVLS) with great support of the Veterinary Services Division (VSD) staff. The mission went well, with sufficient time and access to information to be able to address the strategic priorities for the Veterinary Services of Swaziland for the next five years.

In general terms, the PVS Evaluation conducted in Swaziland in May 2015 showed that the Swaziland VSD has achieved a good level of compliance with international standards. They have successfully addressed a number of animal disease challenges over the past decades, including FMD and endemic tick borne diseases (babesiosis, anaplasmosis, erhlichiosis/heartwater), and have gained international recognition for these achievements. In consequence, no major changes are proposed in this PVS Gap Analysis. Instead, specific improvements have been earmarked to enhance the quality of some programmes or to extend them to other areas, species or regions.

The passage of the Veterinary Public Health Act (17/2013) represents a major new responsibility for the VSD, and one of the biggest challenges to be faced in the upcoming years.

This PVS Gap Analysis presents the priorities for the Veterinary Services of Swaziland and a five-year programme of strategic actions, to increase its compliance with OIE standards, and an indicative cost to strengthen these systems.

Main actions will be directed to:

- enhance efficiency and effectiveness of controls of imports and exports,
- develop new export opportunities for animals and animal products,
- expand the successful *Swaziland Livestock Identification and Traceability System*,
- implement a consistent national standard on food safety to provide consumers with higher quality and safer food, in compliance with the new VPH Act,
- assume a more active role in the control over the retail sale and administration / use of veterinary medicines and promote the prudent use of antimicrobial agents,
- improve and expand the surveillance of, and preparedness for, animal diseases,
- review the existing control programmes for bovine brucellosis and tuberculosis to ensure more effective results, developing a comprehensive programme linking the findings in slaughterhouses and the dairy industry with the control measures applied in the field,
- promote a more proactive role of field services in diagnosis and improved quality of sample submissions,
- improve overall laboratory funding for reagents, consumables, and for appropriate functioning, maintenance, and eventually replacement of equipment,
- engage in a quality assurance policy for the laboratories,
- develop an effective training plan to improve the skills and competencies of the staff to enable the VSD to cope with the technical requirements of the ambitious targets set for the upcoming five years.

The DVLS does not expect major changes for the upcoming 5 years in the management policy or structure of the VSD, nor in the way that service is delivered in the field.

Internal coordination will be strengthened by the increased provision for operational funding and for investments in new facilities and equipment allocated in the different technical programmes.

Management of operations and resources will be improved by upgrading the paper-based reporting and management system and progressively shift to a fully computerised system and database. The DVLS anticipates such a comprehensive shift that will eventually integrate the different areas under its mandate.

These and other significant changes envisaged will require extensive consultation with stakeholders and other governmental structures to develop a cohesive system with rational use of the human, physical and financial resources. Communication will be a key tool to engage producers, the industry, the public, politicians, community leaders, and others in the implementation of the new programmes, the success of which depends on their engagement and support.

Obviously, most of the improvements envisaged during this PVS Gap Analysis for the next five years will require the review or development of legislation and regulations.

To implement such a programme, the PVS Gap Analysis estimates that the total budget to be made available should slightly exceed USD 50 million over a period of 5 years and this includes both activities that are currently carried out and new improvements. Within the USD 50 million envelope, the annual (recurring) budget is estimated at USD 9.5 million, which means an increase of 35% compared with the annual VSD budget implemented in 2014, though it must be stressed that not all expenses earmarked in the Gap Analysis budget are currently covered by the VSD budget (e.g. scholarships).

Analyses performed in the different chapters have shown that present staff numbers is in general appropriate and there is no imperative need to increase the staff numbers.

A big proportion of the investments earmarked for buildings correspond to staff housing, which is critical in the case of Swaziland in order to ensure the deployment of staff to remote locations; to facilitate adequate contact with the animal population, to prevent the incursion of diseases, to conduct disease surveillance, and to be able to promptly react to any contingency.

Swaziland has shown to have high-level veterinary services, and consequently the existing staff would handle most of the technical developments. In this sense, a very small investment would be required for specially pinpointed external consultancies.

The project laid down in this report seems achievable in terms of the technical means available and the resources estimated necessary, and it would lead to strengthened Veterinary Services, in a position to considerably contribute to, or facilitate, improved veterinary public health, increased animal production with improved food security, and the development of more and better export markets.

APPENDICES

Appendix 1: Critical Competency Cards and corresponding Cost Estimation Cards

A. Critical Competencies for International Trade

Trade 1 – II-4. Quarantine and border security

1. Definition of this PVS Critical Competency

The authority and capability of the VS to prevent the entry and spread of diseases and other hazards of animals and animal products.

2. Desired Level of Advancement (DLA)

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[2] 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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

The strategy to enhance efficiency and effectiveness of border control will entail upgrading the technical skills of personnel at the BIPs supported with additional technology and resources. By participating in the national effort by customs to develop and implement the 'single window' approach to integrate all import/export controls to an electronic platform and develop appropriate documentation and certification to allow central review and pre-approval processes. Inspection activities will become risk based and regularly reviewed, and certificate security features would be enhanced (e.g. watermarks).

4. Activities to implement (chronological)

Specific activities		- Develop and implement specialised training to raise the technical capacity of a new classification of *cordon inspectors* (CI) recruited from within the ranks of the *cordon guards* (CG) to serve at BIPs to support the electronic documentation of import/exports - Develop and implement formal training for all CG at the border crossings (non-certificate level) - Work with customs and revenue authorities to develop and implement the proposed national single window' database covering all import/export activities (*Automated System for Customs Data* : ASYCUDA) to support electronic documentation exchange that is both inter-agency and inter-operable - Develop and implement appropriate security (e.g. watermarks) for electronic certificates - Supply computers and electronic communication at all BIPs - Maintain and renew the cordon fences on a regular basis - Build the necessary housing for staff at BIPs and along the cordon fences to ensure their integrity provide adequate staff housing at BIPs - Ensure adequate transport resources are provided to allow full functionality
Activities linked to cross-cutting competencies	*III.2 Consultation*	- Include relevant stakeholders in the development of new import/export procedures
	IV.1, 2, 3. Legislation	- Develop, review and adapt regulations to support the 'single window' import/export initiative
	I.3. Continuing Education	- Training for border crossing personnel
	III.1 Communication	
	I.11. Management of resources and operations	- Develop appropriate database and expand SLITS capacity - Participate in database development of 'single-window' software - Ensure uniformity of documentation and support risk based inspection procedures
	III.3. Official representation	- Negotiate uniform certification

5. Objectively verifiable indicators

-'Single window' operational with supporting technical resources
- Electronic documentation and database for import/export
- *Schemes of Service* (SoS) for the new category of Cordon Inspectors to reflect their new responsibilities and skill-set
- Annual records of import/exports inspections, actions taken
- Status of the cordon fence from annual reports (numbers of personnel by category, cordon camps; km of fence repaired/replaced)

[2] 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.

TRADE - 1 CC: II-4. Quarantine and border security					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()	3,343				
Maintenance cost per (m2)	2,714	34	1	92,290	
Renovation cost per (m2)	14	503	5	1,449	
Building cost per (m2)	614	671	25	16,490	329,810
Transport (Purchasing cost)					
Motorbikes	7	3,676	3	8,577	
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set	3	3,088	2	4,632	
Other specific office equipment set		515	1		
Other specific equipment					
Renewal of fences	700	2,574	10	180,147	900,735
Sub-total Material investments				**303,585**	**1,230,545**
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years)					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals	47.0	8,088		380,136	
Support staff	223.0	2,941		655,843	
Sub-total Salaries				**1,035,979**	
Consumable resources					
Administration		20%		207,196	
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year	25,200	0.05		1,262	
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**208,458**	
Delegated activities					
Sub-total Delegated activities					
Total in	***USD***			***1,548,022***	***1,230,545***
Total in	*Emalangeni*			***21,053,096***	***16,735,415***

Trade 2 – II-12. Identification and traceability

A. Animal identification and movement control

1. Definition of this PVS Critical Competency

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 animals disease control, food safety, or trade or any other legal requirements under the VS/OIE mandate.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Animal identification and movement controls will be extended to small ruminants as part of the current SLITS database and progressively implemented across the country. Within the context of the national move towards 'e-governance' and paperless documentation, the VS will improve documentation and its capacity for real-time data entry for animal identification and movement controls, as part of the field network activities. Methods for animal identification in other economically relevant species will be explored within the context of expansion of the SLITS database.

4. Activities to implement (chronological)

Specific activities		- Provide and support the use of mobile devices for data entry for all field activities - Develop interface to allow slits data entry by mobile devices by all VAs in the field - With support of international expertise, develop the expansion of the slits to new species. - Enrol other species in slits, with primary focus on small ruminants - Ensure all activities are compatible with developing government policy in the area of e-governance - Move to web-based support for database activity
Activities linked to cross-cutting competencies	*III.2 Consultation*	- Include information about these changes / updates in all regular meetings with stakeholders
	IV.1, 2, 3. Legislation	- Finalise Livestock ID & Traceability Regulations of 2012 and develop supporting procedures for the GNVS
	I.3. Continuing Education	- Train end users (primarily VAs)
	III.1 Communication	- Develop communication tools for outreach to small scale producers on the new identification procedures (e.g. small ruminants)
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

- regular report (annual/monthly) using SLITS data for additional species
- electronic documentation procedures in compliance with e-governance

TRADE - 2
CC: II-12. Identification and traceability
A. Animal identification and movement control

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set	233	515	1	119,995	
Other specific equipment					
Sub-total Material investments				**119,995**	
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)	4.0	8,838			35,352
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**35,352**
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	***USD***			***119,995***	***35,352***
Total in	*Emalangeni*			***1,631,932***	***480,787***

Trade 3 – II-12. Identification and traceability

B. Identification and traceability of products of animal origin

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Implementation of the VPH Act will lead to the development and implementation of regulations and procedures for the identification and traceability of products of animal origin. Provisions, protocols and standards for the registration and inspection of facilities will need to be developed as part of this process. The beef and poultry value chains have been identified as the main priority.

4. Activities to implement (chronological)

Specific activities		No specific activities have been identified during this mission
Activities linked to cross-cutting competencies	*III.2 Consultation*	Any development in this domain will benefit from consultation with the private industry
	IV.1, 2, 3. Legislation	Draft supporting regulations for the VPH Act that include appropriate identification and traceability within the comprehensive effort to fully implement the VPH Act
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

- inspection reports; lists of facilities
- updated GVNS procedures for the field

TRADE - 3
CC: II-12. Identification and traceability
B. Identification and traceability of products of animal origin

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	***USD***				
Total in	*Emalangeni*				

Trade 4 – IV-4. International certification[3]

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Certification for international trade will be progressively improved through integrated electronic documentation covering all domains, now within the VS mandate.

4. Activities to implement (chronological)

Specific activities		- Improve security features of certificates - Explore possible ways to develop e-certification after implementing new import/expo system. with the national 'single-window" and 'e-governance' initiatives - Hire an international expert and/or send someone to other explore/develop the certification upgrades
Activities linked to cross-cutting competencies	*III.2 Consultation*	- Work with interested parties in the honey bee sector to facilitate capacity development with international certification compliance
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	- Support travel abroad to negotiate with potential trading partners in the sectors identified

5. Objectively verifiable indicators

- annual reports of export activity
- electronic certificates and database for export certificates
- reports of access to new markets

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

TRADE - 4 CC: IV-4. International certification					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years)	1	10,000			10,000
Sub-total non material expenditure					**10,000**
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	***USD***				***10,000***
Total in	*Emalangeni*				***136,000***

Trade 5 – IV-5. Equivalence and other types of sanitary agreements

1. Definition of this PVS Critical Competency

The authority and capability of the VS to negotiate, implement and maintain equivalence and other types of sanitary agreements with trading partners.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Work with regional partners to facilitate equivalence agreements supported by risk assessment and based on appropriate animal health standards. The main regional partners are RSA and Mozambique. Also work within the SADC region and internationally to open up possible new markets for Swazi products as identified by producers and industry, such as honey (regionally and to the EU) and poultry (to the Middle East).

4. Activities to implement (chronological)

Specific activities		- Incorporate agreements of equivalence, as appropriate, in the development of the new electronic import/export certification - Identify new export opportunities (e.g. honey to EU, others) - Establish proactive direct contact with potential trading partners competent authorities' to define and agree sanitary requirement for new exports
Activities linked to cross-cutting competencies	*III.2 Consultation*	- Work with interested parties in the honey bee sector to identify new potential markets and trading partners
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	- Staff abroad to open new markets (4 person weeks / year)

5. Objectively verifiable indicators

- annual reports lists of equivalence agreements implemented and quantities traded
- list of new agreed certificates, sanitary protocols signed

TRADE - 5 CC: IV-5. Equivalence and other types of sanitary agreements					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year	4	4,288		17,152	
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**17,152**	
Delegated activities					
Sub-total Delegated activities					
Total in	***USD***			***17,152***	
Total in	*Emalangeni*			***233,267***	

Trade 6 – IV-6. Transparency

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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, carry out audits of their transparency procedures.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Facilitate the VS' notification capacity through improved access to computerised information and web-based information systems. As part of the broader VPH Act implementation, incorporate regular mechanisms to consult with interested parties in the development of supporting regulations and procedures.

4. Activities to implement (chronological)

Specific activities		- Public consultation as required for legislation and regulation development - Develop VS website capacity
Activities linked to cross-cutting competencies	*III.2 Consultation*	- Use resources associated with the externally funded Livestock Policy Hub to develop a sustainable mechanism for consultation with impacted parties
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	- Develop the VSD website to publish information related to official programmes and results
	I.11.Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

- reports of official notification to OIE, WTO and other relevant entities
- reports of pertinent information on the VS website

TRADE - 6 CC: IV-6. Transparency					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

Trade 7 – IV-7. Zoning

1. Definition of this PVS Critical Competency

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).

2. Desired Level of Advancement (DLA)

1. The VS cannot establish disease free zones.

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).

3. Strategy to reach the Desired Level of Advancement (if relevant)

Continue to maintain and renew the cordon fences with the support of the necessary physical and human resources (see CC II.4) and supported by appropriate periodic risk assessment.

4. Activities to implement (chronological)

Specific activities		
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

TRADE - 7 CC: IV-7. Zoning					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

Trade 8 – IV-8. Compartmentalisation

1. Definition of this PVS Critical Competency

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).

2. Desired Level of Advancement (DLA)

1. The VS cannot establish disease free compartments.

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).

3. Strategy to reach the Desired Level of Advancement (if relevant)

Compartmentalisation has been used successfully for trade with RSA and there is the possibility to expand the use of compartmentalisation to additional diseases/commodities.

4. Activities to implement (chronological)

Specific activities		- Develop additional trade agreements with RSA using the compartment model - Ensure the necessary laboratory / diagnostic support resources are available to support compartmentalisation agreements
Activities linked to cross-cutting competencies	*III.2 Consultation*	- Work with interested parties to identify opportunities for additional compartment agreements
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	- Ensure industry is aware that this is a private initiative that they will need to pay for
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

- reports of additional compartment agreements with volume of trade involved

TRADE - 8 CC: IV-8. Compartmentalisation					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

B. Critical Competencies for Veterinary Public Health

VPH 1 – II-8. Food safety

A. Regulation, authorisation and inspection of establishments for production, processing and distribution of food of animal origin

1. Definition of this PVS Critical Competency

The authority and capability of the VS to establish and enforce sanitary standards for establishments that produce, process and distribute food of animal origin.

2. Desired Level of Advancement (DLA)

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).

3. Strategy to reach the Desired Level of Advancement (if relevant)

Define a new comprehensive approach for the implementation of the VPH Act, including the development of the supporting regulations and procedures. Standards for the classification of all facilities that will be under the new mandate need to be developed. Progressively implement the new framework.

4. Activities to implement (chronological)

Specific activities		- Work with MoH and local governments to identify all slaughter facilities and of establishments for production, processing and distribution of food of animal origin - Visit and classify existing slaughter facilities and of establishments for production, processing and distribution of food of animal origin - Define minimum standards to be registered - Define upgrading plans and grace periods for those that don't meet the minimum today. - Develop protocols for assessment and registration of slaughter facilities and of establishments for production, processing and distribution of food of animal origin - Train VPH inspectors to inspect and register establishments - Register all facilities - Implement a routine inspection programme to monitor compliance
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consultation with industry to define and agree key steps in the process
	IV.1, 2, 3. Legislation	Develop regulations to implement the VPH Act with the support of an international and a national consultant (50 days).
	I.3. Continuing Education	Update knowledge of VS Staff on the new VPH regulations for inspection and register of establishments
	III.1 Communication	Implement an awareness programme to promote the improvement and use of registered slaughter facilities
	I.11 .Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

- Report of the number of establishments registered, authorised and inspected
- Records of meat inspectors trained

VETERINARY PUBLIC HEALTH - 1
CC: II-8. Food safety
A. Regulation, autorisation and inspection of establishments

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)	49.0	147			7,203
International expertise (weeks/5 years)	7.0	8,838			61,866
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**69,069**
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				***69,069***
Total in	***Emalangeni***				***939,338***

VPH 2 – II-8. Food safety

B. Ante and post mortem inspection at abattoirs and associated premises (e.g. meat boning / cutting establishments and rendering plants)

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

The development of regulations for the implementation of the new VPH Act will include the definition of national standards for the inspection of animals at slaughter, for meat hygiene and for the collection of information relevant to livestock diseases and zoonoses. A standard policy will have to be defined for the appointment of the staff required for inspections, ensuring that all participants (MoH, VS and local authorities) work to the same standards.

4. Activities to implement (chronological)

Specific activities		- Develop a nationwide inspection system at slaughter
		  ○ define inspection standards and procedures
		  ○ define the qualifications and training required for meat inspectors including knowledge of clinical signs of disease, disease pathology and recognition
		  ○ standardize accreditation of inspectors
		  ○ develop procedures for veterinary supervision of meat inspectors
		- Train/recruit meat inspectors for the implementation of the new inspection system. Work with MoH to harmonise the registration of meat inspectors
		- Provide specialised training in food safety inspection in the Meat Inspection Training Institute (MITI), in the Republic of Botswana to Veterinary inspectors. (6 veterinarians x 6 months)
		- If the delegation route is taken, appropriate regulations and procedures will be needed to ensure that the DVLS maintains an adequate and appropriate chain of command.
		- Improve collaboration with local authorities and MoH to strengthen the controls at market places and to exchange information on issues arising

Activities linked to cross-cutting competencies	*III.2 Consultation*	Consultation with industry to define and agree key steps in the process
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Update knowledge of VS Staff on the new VPH regulations for inspection and register of establishments
	III.1 Communication	
	I.11 .Management of resources and operations	Develop a database to track all inspection activities done by VS & MoH & local municipalities Develop a system for monitoring of inspection activities
	III.3. Official representation	

5. Objectively verifiable indicators

- Reports of ante and post mortem inspection
- Training programme for meat inspectors
- Register of meat inspectors

VETERINARY PUBLIC HEALTH - 2
CC: II-8. Food safety
B. Ante and post mortem inspection at abattoirs and associated premises

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes	16	3,676	3	19,605	
Cars	6	19,118	5	21,030	
4x4 vehicles		31,618	5		
Staff office equipment set	22	3,088	2	33,968	
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments				**74,603**	
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians	5.5	28,676		157,718	
Other university degree		18,382			
Veterinary para-professionals	22.0	8,088		177,936	
Support staff	2.0	2,941		5,882	
Sub-total Salaries				**341,536**	
Consumable resources					
Administration		20%		68,307	
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year	57,600	0.05		2,884	
Km or miles cars / year	137,500	0.12		16,065	
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**87,257**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***503,396***	
Total in	***Emalangeni***			***6,846,183***	

VPH 3 – II-8. Food safety

C. Inspection of collection, processing and distribution of products of animal origin

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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 only 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)

3. Strategy to reach the Desired Level of Advancement (if relevant)

The development of regulations for the implementation of the new VPH Act will include the definition of national standards for food safety measures on collection, processing and distribution of products of animals. A standard policy will have to be defined for the appointment of the staff required for inspections, ensuring that all participants (MoH, VS and local authorities) work to the same standards.

4. Activities to implement (chronological)

	Specific activities	- Develop a nationwide inspection system for the collection, processing and distribution of products of animal origin o define inspection standards and procedures o define the qualifications and training required for inspectors o standardize accreditation of inspectors - Train/recruit inspectors for the implementation of the new inspection system. Work with MoH to harmonise the registration of inspectors - If the delegation route is taken, appropriate regulations and procedures will be needed to ensure that the DVLS maintains an adequate and appropriate chain of command. – Improve collaboration with local authorities and MoH to strengthen the controls at market places and to exchange information on issues arising
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11.Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

VETERINARY PUBLIC HEALTH - 3
CC: II-8. Food safety
C. Inspection of collection, processing and distribution of products of animal origin

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars	2	19,118	5	7,647	
4x4 vehicles		31,618	5		
Staff office equipment set	2	3,088	2	3,088	
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments				**10,735**	
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians	1.0	28,676		28,676	
Other university degree		18,382			
Veterinary para-professionals	1.0	8,088		8,088	
Support staff		2,941			
Sub-total Salaries				**36,764**	
Consumable resources					
Administration		20%		7,353	
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year	50,000	0.12		5,842	
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**13,195**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***60,694***	
Total in	***Emalangeni***			***825,437***	

VPH 4 – II-9. Veterinary medicines and biologicals

1. Definition of this PVS Critical Competency

The authority and capability of the VS to regulate veterinary medicines and veterinary biological, 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.

2. Desired Level of Advancement (DLA)

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 biological in order to ensure their responsible and prudent use.

3. The VS exercise effective regulatory and administrative control for most aspects related to the control over veterinary medicines and veterinary biological 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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

To improve control of the distribution and sale of veterinary medicines and biologicals, inspection and supervision will be conducted on veterinary wholesale distributors and oversight of retail sales.

4. Activities to implement (chronological)

Specific activities		- Implement programme to supervise veterinary medicine distributors and oversight of retail sales - Improve data collection (use import permits to track quantities) to support pharmacovigilance - Establish a procedure for reporting adverse reactions - Set up programme to monitor antimicrobial resistance
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	Implement awareness for veterinary general dealers and for private veterinarians producers on the prudent use of veterinary products
	I.11.Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

- Reports on inspection of veterinary medicine distributors and retail shops.
- Reports on sanctions and corrective actions.
- Reports on imports/sales/use of veterinary medicines & biologicals
- Procedure for reporting adverse reactions in place.

VETERINARY PUBLIC HEALTH - 4
CC: II-9. Veterinary medicines and biologicals

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

VPH 5 – II-10. Residue testing

1. Definition of this PVS Critical Competency

The capability of the VS to undertake residue testing programmes for veterinary medicines (e.g. antimicrobials and hormones), chemicals, pesticides, radionuclides, metals, etc.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

The current residue programme for export cattle actually covers the production across the whole country (including that of cattle destined for national consumption). The VSD will continue to develop residue monitoring programmes to cover additional species and products, an initial target will be to expand domestic residue testing to cover poultry and honey (for export).

4. Activities to implement (chronological)

Specific activities		- Maintain the current residue monitoring programme for cattle - Identify priority species to be included in the residue-monitoring programme (e.g. poultry, honey). - Develop a new residue-monitoring plan for the selected populations, define sample numbers and frequency, sample types and testing required
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consultation with industry to define and agree key steps in the process and identify possibilities for funding
	IV.1, 2, 3. Legislation	Draft new regulations to support the expanded residue-monitoring programme
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

- Documented residue monitoring programme
- Reports of the residue monitoring programme
- SOPs for investigation and response to residue detections
- Documented audits of the residue monitoring programme

VETERINARY PUBLIC HEALTH - 5 CC: II-10. Residue testing					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

VPH 6 – II-11. Animal feed safety

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

The development of regulations for the implementation of the new VPH Act will include the definition of national standards for processing, handling, storage, distribution and use of animal feeds and feed ingredients. For the next 5 years, it is not a priority for the VSD to assign specific staff for inspections. 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, and VSD Field services control the "availability, storage and feeding" during routine inspections of feedlots.

4. Activities to implement (chronological)

Specific activities		- Maintain present controls on feed - Define minimum standards to registered feed mills and feed storage facilities - Visit and classify existing feed mills and feed storage facilities - Define upgrading plans and grace periods for those that don't meet the minimum today. - Develop protocols for assessment and registration of feed mills and feed storage facilities
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consultation with industry to define and agree key steps in the process
	IV.1, 2, 3. Legislation	Include all aspects of feed safety in the development of regulations for the implementation of the new VPH Act
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

- Updated regulations on different aspects of animal feed safety e.g. processing, handling, storage, distribution and use
- Detailed and updated information on the existing feed mills and feed storage facilities

VETERINARY PUBLIC HEALTH - 6 CC: II-11. Animal feed safety					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

C. Critical Competencies for Animal Health

AH 1 – II-5. Epidemiological surveillance and early detection

A. Passive epidemiological surveillance

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Strengthen the passive surveillance system with improved awareness to report and more laboratory investigations by reinforcing the links between the field services and the laboratory and improving training and equipment of field staff

4. Activities to implement (chronological)

Specific activities		- Develop clear case/syndromes definitions for notifiable diseases for field staff - Develop diagnostic guidelines for notifiable diseases for field staff (sampling, submission, timeframes, etc.) - Establish clear lines and streamline systems of communication/support and reporting from field staff to RVOs and to headquarters - Establish clear lines and streamline systems of sample submission and laboratory results reporting. - Enhance staff capabilities by assuring appropriate physical resources (personal protective clothing, IT equipment, materials for clinical examination, autopsy and sampling and templates for data recording) - Collect and report data on animal health during dipping and field visits - Collect and report data from the ante- and post-mortem inspection. - Establish stronger and formal links with private veterinarians (specialist veterinarians providing contract services to commercial producers) and the more intensified producers particularly within the poultry sector, to collect epidemiologic information on suspicions and relevant private laboratory results. - Establish stronger and formal links with wildlife government agencies (SNTC & Big Game Parks) to collect epidemiologic information on suspicions *Note: No budget has been allocated to this CEC as central staff work is included under the Management pillar (CEC 1.6.A), Laboratory costs are included in the Laboratory pillar (CEC II.1.A&B and II.2), and costs related to the Field network are budgeted under CEC II.7.*
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	Include the collection of disease information at ante- and post-mortem inspection and reporting to VSD in the development of regulations for the implementation of the new VPH Act
	I.3. Continuing Education	Train veterinary and para-veterinary staff in notifiable disease detection and investigation. Update knowledge on reporting systems, case definitions and laboratory guidelines
	III.1 Communication	Implement annual public awareness campaigns on the need to report and work with the communities to engage them and promote suspicion reports to VSD
	I.11. Management of resources and operations	Passive surveillance information requires management with data collection, analysis and reporting centrally; passive surveillance notifications, investigations, diagnosis and response to be recorded in the projected integrated database
	III.3. Official representation	

5. Objectively verifiable indicators

Reports on notifications, investigations, laboratory testing and diagnoses
Records of feedback of information to field services and stakeholders

ANIMAL HEALTH - 1
CC: II-5. Epidemiological surveillance and early detection
A. Passive epidemiological surveillance

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

AH 2 – II-5. Epidemiological surveillance and early detection

B. Active epidemiological surveillance

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Update and strengthen active surveillance programmes for priority diseases, including surveillance in wildlife populations. Strengthen the links between the Veterinary Epidemiology Unit and the laboratory, and ensure that the laboratory gets the necessary resources for the completion of the surveillance programme.

4. Activities to implement (chronological)

Specific activities		- Determine priority diseases to be assessed considering the disease control programmes and to support demonstration of disease freedom (for 2015 were: FMD, CBPP, PPR, tsetse (Glossina spp.), trypanosomes. ND, AI).
		- Review and update active surveillance programmes, including documentation of survey methodology including the target disease, target population, diagnostic test, design sensitivity, confidence interval required and sample size. Develop new ones when appropriate.
		- Provide specialised training for a veterinarian to coordinate a specific surveillance programme for wildlife within the Veterinary Epidemiology Unit.
		- Establish stronger links with CVL for:
		  ○ preparation of programmes to assure appropriate laboratory resources are available
		  ○ coordination of the timeframe of the execution to allow for a proper allocation of resources
		- Undertake periodic surveys to monitor the effectiveness of disease control programmes
		- Prepare formal reports of all surveys undertaken with reviews and recommendations for future work
		
		Note: No budget has been allocated to this CEC as central staff work is included under the Management pillar (CEC 1.6.A), Laboratory costs are included in the Laboratory pillar (CEC II.1.A&B and II.2), and costs related to the Field network are budgeted under CEC II.7.

Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

List of priority diseases prepared with the corresponding surveillance programme

Records of specialised training

Reports of surveys conducted

ANIMAL HEALTH - 2
CC: II-5. Epidemiological surveillance and early detection
B. Active epidemiological surveillance

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

AH 3 – II-6. Emergency response

1. Definition of this PVS Critical Competency

The authority and capability of the VS to respond rapidly to a sanitary emergency (such as a significant disease outbreak or food safety emergency).

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Strengthen the links between the central and field levels and perform real-time simulation exercises to maintain awareness on the emergency preparedness plans. Re-assess and update existing emergency response/preparedness plans (FMD, rabies, AI) to ensure they are adapted to the current sanitary situation of the country and the region. PPR is identified as a potential threat so a specific new contingency plan will be developed after a formal risk assessment.

4. Activities to implement (chronological)

Specific activities		- Undertake a technical evaluation of existing emergency preparedness plans (FMD, Rabies, AI). - Develop a new contingency plan for PPR (after formal risk assessment) - Implement regular visits from the VEU to the RVOs to maintain awareness of field staff - Organize one major real-time simulation exercise every five years
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Train staff in the emergency preparedness plans
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Documented emergency preparedness plans
Reports of regular visits from the VEU to the RVOs
Report of real-time simulation exercises

ANIMAL HEALTH - 3 CC: II-6. Emergency response					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) Simulation (1/5 years)	1	1,350			1,350
Sub-total non material expenditure					**1,350**
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year	8	2		16	
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**16**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***16***	***1,350***
Total in	***Emalangeni***			***218***	***18,360***

AH 4 – II-7. Disease prevention, control and eradication

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

To review and update (if needed) the existing control programmes, mostly in ruminants, and extend them to the poultry sector (extensive and commercial) and to honey bees. Special attention will be given to bovine brucellosis and tuberculosis, developing a comprehensive programme linking the findings in slaughterhouses (bTB) and the dairy industry (brucellosis) with the control measures applied in the field. This will be done in cooperation with the private sector and the Swaziland Dairy Board to provide compensation and incentives to support testing and slaughter of positive animals.

4. Activities to implement (chronological)

Specific activities		- Continue implementing current programmes. - Undertake a technical evaluation of existing prevention, control and eradication programmes (FMD, rabies), and update them if necessary. - Develop new programmes for bovine brucellosis and tuberculosis, with a comprehensive approach linking the findings in slaughterhouses (bTB) and the dairy industry (brucellosis) with the control measures applied in the field. - Provide adequate housing to allow proper deployment of staff to the whole territory (60m2 per each of 233 VA + 34 AHT + 8 regional veterinarians) - Provide adequate means of transport to allow the staff to perform field activities on the whole territory - Review/provide cold chain in all RVO and SubRVO (n=32). - Enhance staff capabilities by assuring appropriate physical resources (personal protective clothing, mobile IT equipment, materials for clinical examination, autopsy and sampling) - Implement a specialised training plan to develop the expertise of veterinary staff on disease control and monitoring in poultry (extensive and commercial) and bees at internationally recognised centres abroad.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with industry (Swaziland Dairy Board), producers other stakeholders e.g. MoH for zoonoses
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	Disease control programmes would benefit for the development of a unified database, linking control measures with surveillance, movement control, laboratory results, etc.
	III.3. Official representation	

5. Objectively verifiable indicators

Evaluation and review of control programmes
Documented control programmes (including a new one for bTB and Brucellosis)
Records of consultations with producers, industry, stakeholders in the preparation and review of disease control programmes

ANIMAL HEALTH - 4 CC: II-7. Disease prevention, control and eradication					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()	18,260				
Maintenance cost per (m2)	11,564	34	1	393,176	
Renovation cost per (m2)	3,348	503	5	336,809	
Building cost per (m2)	3,348	671	25	89,860	1,797,206
Transport (Purchasing cost)					
Motorbikes	233	3,676	3	285,503	
Cars	28	19,118	5	107,061	
4x4 vehicles	8	31,618	5	50,589	
Staff office equipment set	36	3,088	2	55,584	
Other specific office equipment set	8	515	1	4,120	
Other specific equipment					
Fridge	32	300	3	3,200	
Sub-total Material investments				**1,325,901**	**1,797,206**
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians	8.0	28,676		229,408	
Other university degree		18,382			
Veterinary para-professionals	272.0	8,088		2,199,936	
Support staff		2,941			
Sub-total Salaries				**2,429,344**	
Consumable resources					
Administration		20%		485,869	
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year	838,800	0.05		42,002	
Km or miles cars / year	700,000	0.12		81,787	
Km or miles 4x4 vehicle / year	200,000	0.20		40,059	
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines	1	66,100.00		66,100	
Acaricide	1	772,058.82		772,059	
Sampling and medical equipment	32	500.00		16,000	
Sub-total Consumable resources				**1,503,875**	
Delegated activities					
Dip tank attendance allowance	650	44.12		28,676	
Sub-total Delegated activities				**28,676**	
Total in	**USD**			***5,287,797***	***1,797,206***
Total in	***Emalangeni***			***71,914,036***	***24,442,007***

AH 5 – II-13. Animal welfare

1. Definition of this PVS Critical Competency

The authority and capability of the VS to implement the animal welfare standards of the OIE as published in the Terrestrial Code.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

To progressively work towards the updating of existing legislation on cruelty of animals to align it with the OIE standards on animal welfare (Title 6 of the OIE Terrestrial Animal Health Code). A specific member of the veterinary staff would be appointed within the VSD to lead this subject as part of its duties.

4. Activities to implement (chronological)

Specific activities		- Identify animal welfare responsibilities within VSD (not full time). - Incorporate OIE principles and specific animal welfare standards in the new regulations to implement the VPH Act (e.g., welfare of animals during transport and slaughter) - Identify opportunities for Swaziland to advance on this matter. *Note: No budget has been allocated to this CEC as staff the mentioned staff is included in the headquarters staff included under the Management pillar (CEC 1.6.A).*
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

ANIMAL HEALTH - 5 CC: II-13. Animal Welfare					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

D. Critical Competencies for Laboratory

LAB 1 – II-1. Veterinary laboratory diagnosis

A. Access to veterinary laboratory diagnosis

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

To increase VSD capability to access and use laboratory diagnosis in support of the official animal and public health programmes through strengthening of the links between field and laboratory services, and to provide the necessary resources for an optimal and sustainable operation. No significant changes are foreseen in terms of the national laboratory infrastructures.

4. Activities to implement (chronological)

Specific activities		- Develop diagnostic guidelines for notifiable diseases for field staff (sampling, submission, timeframes, etc.) - Establish clear lines and streamline systems of communication/support and reporting from field staff to RVOs and to headquarters - Establish clear lines and streamline systems of sample submission and laboratory results reporting. - Specific activities would be conducted to improve field services sample submissions (quantity and quality). Refer to CC II.5 A&B and II.7 - The projection of the VSD is that approximately 20,000 diagnostic analyses are expected to be processed annually. This represents an increase of more than a 50% the current volume of analyses.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Establish links and coordinate efforts with existing laboratories at other public agencies (e.g. MoH) and in the private sector to share expertise and exchange samples and results
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Records of samples submitted from field services
Records of submissions to international reference laboratories
Records of laboratory results

VETERINARY LABORATORIES - 1 CC: II-1.A Access to veterinary laboratory diagnosis					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Official Programs	1	200,000.00		200,000	
Sub-total Consumable resources				**200,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***200,000***	
Total in	***Emalangeni***			***2,720,000***	

LAB 2 – II-1. Veterinary laboratory diagnosis

B. Suitability of national laboratory infrastructures

1. Definition of this PVS Critical Competency

The sustainability, effectiveness and efficiency of the national (public and private) laboratory infrastructures to service the needs of the VS.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

The VSD will access to laboratory resources mainly through the *Central Veterinary Laboratory* (CVL), the future food safety laboratory (currently operating from the SMI premises) and foreign laboratories, especially the South Africa *Onderstepoort Veterinary Institute* (ARC-OVI). The strategy for the upcoming 5 years will be centred on the improvement of the funding to ensure the adequate provision of reagents, consumables, and the appropriate functioning, maintenance, and eventually replacement, of equipment.

4. Activities to implement (chronological)

Specific activities		- Implement a laboratory information management system (LIMS-SILAB) compatible with other data management systems (SLITS)
		- Establish stronger links with the Veterinary Epidemiology Unit (VEU) and Field Services (FS) for:
		  ○ preparation of programmes to assure appropriate laboratory resources are available
		  ○ coordination of the timeframe of the execution to allow for a proper allocation of resources
		- Review laboratory maintenance requirements
		- Develop maintenance plan with priorities/identify budget considering facility upgrades
		- Identify out-dated/obsolete equipment and options for replacement
		- Repairs and maintenance of laboratory infrastructure and testing equipment

Activities linked to cross-cutting competencies	*III.2 Consultation*	Establish links and coordinate efforts with existing laboratories at other public agencies (e.g. MoH) and in the private sector to share expertise and exchange samples and results
	IV.1, 2, 3. Legislation	In the development of regulations for the implementation of the new VPH Act, take into consideration the laboratory resources that will be needed to support the food safety and quality control programmes.
	I.3. Continuing Education	Continuing education and keeping up to date the specialised skills required for the laboratory staff is critical
	III.1 Communication	
	I.11. Management of resources and operations	Laboratory information management system should be fully compatible and integrated with the existing and projected central data management systems
	III.3. Official representation	

5. Objectively verifiable indicators

VETERINARY LABORATORIES - 2
CC: II-1.B Suitability of the national veterinary network

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) SILAB	1	50,000			50,000
Sub-total non material expenditure					**50,000**
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				***50,000***
Total in	***Emalangeni***				***680,000***

LAB 3 – II-2. Laboratory quality assurance

1. Definition of this PVS Critical Competency

The quality of laboratories (that conduct diagnosis 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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

The CVL will engage in a quality assurance policy, establishing a formal quality management system and seeking ISO certification when possible. Additionally, a new *laboratory information management system* (LIMS) will be introduced to improve the efficiency of information flows within the laboratory and with suppliers, clients and sub-contractors abroad.

4. Activities to implement (chronological)

Specific activities		- Appoint a quality manager - Move from a paper-based management system to a computerised LIMS - Progressively implement ISO-compliant quality assurance processes
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Individual assigned and responsible for accreditation programme
Up to date quality assurance manuals and protocols
Accreditation certificates

E. Critical Competencies for Management of Veterinary Services

General Competencies

MVS – I-4. Technical independence

1. Definition of this PVS Critical Competency

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).

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Promote and demonstrate technical independence by following/adhering to well-documented procedures for decision making

4. Activities to implement (chronological)

Specific activities		- The projected centralised information system would provide better data on animal health and production and official programmes to form the basis of decision making - Establish documented procedures for technical decision making processes
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Documented technical decisions
Review reports available

MANAGEMENT OF VETERINARY SERVICES - General competencies
CC: I-4. Technical independence

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

MVS – I-5. Stability of structures and sustainability of policies

1. Definition of this PVS Critical Competency

The capability of the VS structure and/or leadership to implement and sustain policies over time.

2. Desired Level of Advancement (DLA)

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 the VS.

3. Sustainability of policies is not affected or slightly affected by changes in the political leadership and/or the structure and leadership of the 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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

4. Activities to implement (chronological)

Specific activities		No specific activities have been identified for this 5 year period
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

MANAGEMENT OF VETERINARY SERVICES - General competencies
CC: I-5. Stability of structures and sustainability of policies

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

MVS – I-6. Coordination capability of the Veterinary Services

A. Internal coordination (chain of command)

1. Definition of this PVS Critical Competency

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).

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Maintain the existing organisational structure and assure the same level of internal coordination which already exists for animal health activities to the new programmes to be developed for VPH, even in the face of delegation of some VPH activities to MoH or local authorities.

4. Activities to implement (chronological)

Specific activities		- Maintain and strengthen lines of reporting and coordination from the field towards the DVLS - Develop management protocols for new services and programmes as they are implemented - Strengthen cross-linking of field services, VPH and laboratory. *Note: Budget allocated to this CEC includes all staff involved in central and regional coordination and management activities, including management of technical programmes and the resources required for its operation (CEC 1.6.A).*
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Revised/updated organisational charts available
Records of coordination meetings and communications

MANAGEMENT OF VETERINARY SERVICES - General competencies

CC: I-6.A. Coordination capability of the Veterinary Services: Internal coordination (chain of command)

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()	350				
Maintenance cost per (m2)	350	34	1	11,900	
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes	5	3,676	3	6,127	
Cars		19,118	5		
4x4 vehicles	13	31,618	5	82,207	
Truck	4	60,000	10	24,000	120,000
Bus	1	80,000	10	8,000	40,000
Staff office equipment set	35	3,088	2	54,040	
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments				**186,273**	**160,000**
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians	11.0	28,676		315,436	
Other university degree	14.0	18,382		257,348	
Veterinary para-professionals	19.0	8,088		153,672	
Support staff	112.0	2,941		329,392	
Sub-total Salaries				**1,055,848**	
Consumable resources					
Administration		20%		211,170	
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year	18,000	0.05		901	
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year	325,000	0.20		65,096	
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**277,167**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***1,519,288***	***160,000***
Total in	***Emalangeni***			***20,662,317***	***2,176,000***

MVS – I-6. Coordination capability of the Veterinary Services

B. External coordination

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

The anticipated new programmes in the area of VPH, the extended surveillance in wildlife species, the revised control programmes on zoonosis (bTB and brucellosis), and the unified border control, to name but a few, will require an important effort to coordinate with other relevant authorities such as the MoH, wildlife authorities, and local governments.

4. Activities to implement (chronological)

Specific activities		Identify priority government stakeholders – these will include: • Customs authority for border/import control (single window approach) • MoH and Local Governments for registration and management of abattoirs and processing premises, and overall VPH act implementation • Wildlife-related government and non-governmental agencies (SNTC & Big Game Parks) • Ministry of Labour for the organisation of pre-service scholarships Develop formal coordination agreements with other competent authorities Define formal communication and coordination processes
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Coordination agreements signed
Formal reports of external coordination activities

MANAGEMENT OF VETERINARY SERVICES - General competencies
CC: I-6.B. Coordination capability of the Veterinary Services: External coordination

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

MVS – II-3. Risk analysis

1. Definition of this PVS Critical Competency

The authority and capability of the VS to base its risk management measures on risk assessment.

2. Desired Level of Advancement (DLA)

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).

3. Strategy to reach the Desired Level of Advancement (if relevant)

Further develop the use of risk analysis in support of programme and policy development, in addition to the present use targeting imports and animal health programmes, and to improve the documentation of these risk assessment processes.

4. Activities to implement (chronological)

Specific activities		- Develop formal and documented risk assessment procedures - Progressively introduce the risk assessment in the programme and policy development process using existing capacities within VSD.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Engage stakeholder to participate in risk analysis and identification of priorities
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	Communicate results of risk analyses that support key decisions
	I.11. Management of resources and operations	Information available from computerised central information management would be key to provide information for risk analysis and decision making
	III.3. Official representation	

5. Objectively verifiable indicators

Risk analyses reports

MANAGEMENT OF VETERINARY SERVICES - General competencies
CC: II-3. Risk analysis

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

MVS – III-4. Accreditation / authorisation / delegation

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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 stakeholders.

3. Strategy to reach the Desired Level of Advancement (if relevant)

For the time being, the small number of private veterinarians in Swaziland does not allow for a meaningful delegation/accreditation programme

4. Activities to implement (chronological)

Specific activities		- Maintain the few official activities, which are currently delegated to : o Dip tank attendants o Private veterinarians doing rabies vaccination - Explore new delegation possibilities that could arise from the development of more industrial production systems *Note: No budget has been allocated to this CEC as allowances for dip tank attendants is included under the costs of the field network (CEC II.7), and privately applied dog rabies vaccines are paid directly by owners.*
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

MANAGEMENT OF VETERINARY SERVICES - General competencies
CC: III-4. Accreditation / Authorisation / Delegation

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

Total of delegated activities costed elsewhere	***28,676***

MVS – III-5. Veterinary Statutory Body (VSB)

A. VSB authority

1. Definition of this PVS Critical Competency

The VSB is an autonomous regulatory body for veterinarians and veterinary para-professionals. Its role is defined in the Terrestrial Code.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

To review and update the Veterinary Surgeons Act (8/1997) to include veterinary para-professionals under the authority of the *Veterinary Council of Swaziland* (VCS)

4. Activities to implement (chronological)

Specific activities		- Define the categories of veterinary para-professionals, their areas of activity and basic training requirements. - Draft the updated act/bill. - Advocate for rapid promulgation
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	Review and update the Veterinary Surgeons Act (8/1997)
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Veterinary Surgeons Act updated

MANAGEMENT OF VETERINARY SERVICES - General competencies
CC: III-5. Veterinary Statutory Body A. VSB authority

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

MVS – III-5. Veterinary Statutory Body (VSB)

B. VSB capacity

1. Definition of this PVS Critical Competency

The capacity of the VSB to implement its functions and objectives in conformity with OIE standards.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

The updated Veterinary Surgeons Act (8/1997) will require the Veterinary Council of Swaziland (VCS) to increase its capacity to take over the registration and control of the practice of veterinary para-professionals in Swaziland.

4. Activities to implement (chronological)

Specific activities		- Initiate a campaign to register veterinary para-professionals - Review registration programme and update as necessary - Progressively initiate controls to avoid practice of non-registered veterinary para-professionals
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	Conduct extension campaigns to alert veterinary para-professionals to the need to register
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Records of registration of veterinary para-professionals
Records of disciplinary measures

MANAGEMENT OF VETERINARY SERVICES - General competencies
CC: III-5. Veterinary Statutory Body B. VSB capacity

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

MVS – III-6. Participation of producers and other interested parties in joint programmes

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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 programmes 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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Promote the involvement and participation of producers in programmes of common interest. The updated bovine tuberculosis and brucellosis control programmes should ideally be implemented jointly with the industry.

4. Activities to implement (chronological)

Specific activities		- Identify opportunities for joint programmes:
		  o *Bovine* tuberculosis and brucellosis
		  o *Sanitary requirements for new exports (honey)*
		  o *Disease surveillance and control in poultry*
		  o *Export compartments*
		- Initiate discussions with the stakeholders (producers, industry)
		- Design joint programmes, with formal organisation and involvement of interested parties in the management of the specific programmes
		- Implement programmes
		- Conduct regular reviews and revisions of programmes
		
		Note: No budget has been allocated to this CEC as costs of programmes have been included in the corresponding technical pillar (trade, Animal Health, VPH) and all costs of consultation activities are included under specific critical competency (CEC III.2).

Activities linked to cross-cutting competencies	*III.2 Consultation*	Organised and programmed consultation will be key for the development and implementation of joint programmes.
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Documented joint programmes

Reports of joint programmes activities and results

MANAGEMENT OF VETERINARY SERVICES - General competencies
CC: III-6. Participation of producers and other interested parties in joint programmes

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

E. Critical Competencies for Management of Veterinary Services

Cross-cutting issues

MVS – I-2. Competencies of veterinarians and veterinary para-professionals

A. Professional competencies of veterinarians including the OIE Day 1 competencies

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Pursue the current policy of financing the initial training 2 veterinary students per year in internationally recognised veterinary faculties and to implement a training plan to develop specialised competencies of the existing staff.

4. Activities to implement (chronological)

Specific activities		- Continue to train 2 veterinary students per year in internationally recognised veterinary faculties
		- Maintain the liaison with Ministry of Labour to assure the funds for the pre-service scholarships
		- Develop a staff training programme for the following specific topics:
		  ○ Specialised competences in disease control and surveillance in poultry, wildlife, and bees; estimated at 20 month/person over the 5 year period.
		  ○ Specialised 6 month training in food safety inspection in MITI (Botswana) for the 6 vets. Estimated at USD 8,000 each.

Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Programmes for specialised training
Records of qualifications achieved and courses completed

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues
CC: I-2.A. Professional competencies of veterinarians

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Initial training (nb of students / year)	10.0	50,000			500,000
Specialised training (person-months/5 years)	32.0	3,750			120,000
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**620,000**
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				***620,000***
Total in	***Emalangeni***				***8,432,000***

MVS – I-2. Competencies of veterinarians and veterinary para-professionals

B. Competencies of veterinary para-professionals

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

1. The majority of veterinary para-professionals have no formal entry-level training.

2. The training of veterinary para-professionals is of a very 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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Provide specific training to Cordon Guards involved in veterinary inspection at the borders and promote some of them to inspector level (veterinary para-professional level) from their current status as “support staff” (incentive).

4. Activities to implement (chronological)

Specific activities		- Define the future role of Inspectors (veterinary para-professionals) at border control, and their necessary qualifications and training - Organize the delivery of necessary training through the VFTC - Select the targeted staff and implement the training programme (budgeted for 36 persons) - Review training and update if necessary
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Training plan for Cordon guards available
Records of training courses
Records of qualifications of Border inspectors

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues
CC: I-2.B. Competencies of veterinary para-professionals

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Initial training (nb of students / year)	36.0	3,971			142,956
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**142,956**
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				***142,956***
Total in	***Emalangeni***				***1,944,202***

MVS – I-3. Continuing education

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

1. The VS have no access to continuing 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 submitted to periodic evaluation of effectiveness.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Develop a formal and comprehensive continuing education programme for all VSD staff.

4. Tasks to implement (chronological)

Specific tasks		- Identify training needs and develop training programmes
		- Priority topics identified in this PVS Gap Analysis relate to
		  ○ the extended animal health programmes,
		  ○ the implementation of the VPH Act,
		  ○ the introduction of a computerised management system,
		  ○ the extension of the SLITS to new species.
		- Work with VFTC to enable the delivery of necessary training
		- Assign budget (budgeted at 1 week of CE per year per staff)
		- Review and revise the CE programme annually

Tasks linked to cross-cutting competencies	*III.2 Consultation*	Support the *Veterinary Council of Swaziland* (VCS) in the implementation of a requirement for *Continuing Professional Development* (CPD)
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Documented annual CE programmes
Records of CE provided

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues
CC: I-3. Continuing education

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)	1,932.5	27		51,276	
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure				**51,276**	
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***51,276***	
Total in	***Emalangeni***			***697,349***	

MVS – I-11. Management of resources and operations

1. Definition of this PVS Critical Competency

The capability of the VS to document and manage their resources and operations in order to analyse, plan and improve both efficiency and effectiveness.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Move towards a computer-based information management and the implementation of an integrated information management system and database, to improve the efficiency and effectiveness of data collation and analysis and reporting.

4. Activities to implement (chronological)

Specific activities		- Provide computers to all offices and mobile IT devices for those involved in data entry/management and reporting on the field - Provide Internet connection and connect all offices/officers involved in data entry/management and reporting to an integrated network. - Contract external expertise to design and implement an integrated database and purchase the required IT equipment (special fund of USD 500,000) - Develop e-reporting parallel to the hard copy system to be used as internet access becomes available - Review and collate data on the management and use of resources and operations undertaken - Analyse data/information received and implement corrective measures/training as appropriate
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Train staff in the efficient use of the new database and management system
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Offices and officers equipped and connected to the VSD network
Management system for resources and operations established
Reports on the management of resources and operations

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues CC: I-11. Management of resources and operations					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for development	1	500,000			500,000
Sub-total non material expenditure					**500,000**
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				***500,000***
Total in	***Emalangeni***				***6,800,000***

MVS – III-1. Communication

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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 communications but it is not always up-to-date in providing information.

4. The VS contact point for communications 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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Draft a communication strategy for the VSD and develop a formal, integrated and comprehensive communication programme including all relevant topics.

4. Activities to implement (chronological)

Specific activities		- Appoint a specialised staff as communications officer/manager - Draft a communication strategy with the support of the MoA Staff and an external national expert while developing the necessary expertise "in house" to implement, review and update the communication strategy and programme (estimated at 2-week of a national consultant). - Identify priority target audiences, messages and programmes for communications. Critical communications and awareness messages, as defined under other CCs will be delivered and budgeted under this CC. (estimated at USD 20,000 per year) - Review current communications activities and revise to ensure priority audiences are being addressed; integrate the communications activities into one cost-effective programme - Review and revise the communication programme annually
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Communications officer/manager appointed
Documented communication strategy for the VSD
Documented communication programme for the VSD
Records of communication programme activities

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues
CC: III-1. Communication

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)	14.0	147			2,058
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**2,058**
Salaries					
Veterinarians		28,676			
Other university degree	1.0	18,382		18,382	
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries				**18,382**	
Consumable resources					
Administration		20%		3,676	
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific communication materials and activities	1	20,000.00		20,000	
Specific costs					
General communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**23,676**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***42,058***	***2,058***
Total in	***Emalangeni***			***571,994***	***27,989***

MVS – III-2. Consultation with stakeholders

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Maintain the fruitful on-going exchanges with producers at the *Dip Tank Committees* (DTC) and develop a formal, integrated and comprehensive consultation programme with increased focus on coordination and collaboration across different sectors and agencies.

4. Activities to implement (chronological)

Specific activities		- Identify priority target stakeholders (industry, politicians, community leaders, and others), programmes and critical points to be agreed for consultation. Critical items, as defined under other CCs will be organised and budgeted under this CC. Such key topics include: o the implementation of the VPH Act, o the expansion of the SLITS to new species, o the modernization of the import/export procedures and border control - Hold 3 formal large consultation meetings annually to interact with key stakeholders. Meetings should be scheduled, have defined terms of reference, and should produce formal reports, including the details of participants, discussion and decisions taken. - Report the results of the consultation and feedback to the stakeholders - Review and revise the consultation programme annually
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	Include consultation with stakeholders as part of the regular process to draft new legislation and regulations
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Records of formal consultation meetings and processes, information shared and meeting minutes

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues
CC: III-2. Consultation with interested parties

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)	3	1,000.00		3,000	
Kits / reagents / vaccines					
Sub-total Consumable resources				**3,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***3,000***	
Total in	***Emalangeni***			***40,800***	

MVS – III-3. Official representation

1. Definition of this PVS Critical Competency

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).

2. Desired Level of Advancement (DLA)

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 limited contribution.

3. The VS actively participate[4] in the majority of relevant meetings.

4. The VS consult with stakeholders and take into consideration their opinions in providing papers and making interventions in relevant meetings.

5. The VS consult with stakeholders 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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Continue to actively engage in international for a, such as the OIE, Codex Alimentarius, SADC, WTO SPS Committee, AU-IBAR, SACU and maintain representation in regional and international meetings.

4. Activities to implement (chronological)

Specific activities		- Continue to attend key regional and international meetings - Develop stronger advocacy in planning for and participation in regional and international meetings; provide briefing papers to international meetings; attend international meetings - Prepare briefing papers or interventions for key international meetings - Provide the feedback to government authorities and key stakeholders after the meetings
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Records of attendance at meetings and papers presented
Reports of meeting outcomes and participation

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

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues
CC: III-3. Official representation

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year	14	4,288		60,032	
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**60,032**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***60,032***	
Total in	***Emalangeni***			***816,435***	

MVS – IV-1. Preparation of legislation and regulations

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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 outdated 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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Actively engage and promote the drafting and enacting of the new regulations required to implement the improvements foreseen in this report, in particular those needed to implement the VPH act.

4. Activities to implement (chronological)

Specific activities		Work with MoA legal officers to plan and start the drafting of the new legislation Seek for external expertise when deemed necessary (e.g. VPH Act implementation)
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with stakeholders, inviting their comments and allowing them to review the proposed new regulations and legislation
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	Communication activities for increased awareness of new regulations and legislation
	I.11.Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

New and updated regulations and legislation

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues
CC: IV-1. Preparation of legislation and regulations

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

MVS – IV-2. Implementation of legislation and regulations and compliance thereof

1. Definition of this PVS Critical Competency

The authority and capability of the VS to ensure compliance with legislation and regulations under the VS mandate.

2. Desired Level of Advancement (DLA)

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 instance of non-compliance in most relevant fields of activity.

4. Veterinary legislation is implemented in all domains of veterinary competence and the VS work with stakeholders to minimise instances of non-compliance.

5. The compliance programme is regularly subjected to audit by the VS or external agencies.

3. Strategy to reach the Desired Level of Advancement (if relevant)

The strengthening of resources dedicated to field and management services, the improved information management and the anticipated integrated computerised systems, will all strengthen enforcement activities, while the improvements foreseen in the areas of communication and consultation will improve overall compliance.

4. Activities to implement (chronological)

Specific activities		No specific activities have been identified for this 5 year period
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Records of awareness activities
Records of monitoring activities
Records of penalties imposed

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues
CC: IV-2. Implementation of legislation and regulations and compliance thereof

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

MVS – IV-3. International harmonisation

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

Continue to take into account international standards and guidelines when drafting and reviewing legislation and regulations as appropriate.

4. Activities to implement (chronological)

Specific activities		No specific activities have been identified for this 5 year period
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

[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.

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues CC: IV-3. International harmonisation					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (m2)		34	1		
Renovation cost per (m2)		503	5		
Building cost per (m2)		671	25		
Transport (Purchasing cost)					
Motorbikes		3,676	3		
Cars		19,118	5		
4x4 vehicles		31,618	5		
Staff office equipment set		3,088	2		
Other specific office equipment set		515	1		
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		3,750			
Continuing education (person-days/year)		27			
National expertise (days/5 years)		147			
International expertise (weeks/5 years)		8,838			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		28,676			
Other university degree		18,382			
Veterinary para-professionals		8,088			
Support staff		2,941			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		2			
drivers within the country (person-days) / year		2			
staff abroad (person-weeks) / year		4,288			
Transport costs					
Km or miles Motorbikes / year		0.05			
Km or miles cars / year		0.12			
Km or miles 4x4 vehicle / year		0.20			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Emalangeni***				

F. Critical Competencies for Resources and Budget Analysis

I-1. Professional and technical staffing of the Veterinary Services.

A. Veterinary and other professionals (university qualifications)

1. Definition of this PVS Critical Competency

The appropriate staffing of the VS to allow for veterinary and technical functions to be undertaken efficiently and effectively.

2. Desired Level of Advancement (DLA)

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) level.

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

To continue with the current staffing policies, including the promotion of training of veterinarians outside of the country to count with potential future professionals for key positions.
To make an important investment to provide adequate housing to VSD staff, in particular for those posted in remote areas of the country.

4. Activities to implement (chronological)

Specific activities		No specific activities have been identified for this 5 year period aside of those detailed in the different CCs.
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

I-1. Professional and technical staffing of the Veterinary Services.

B. Veterinary para-professionals and other technical personnel

1. Definition of this PVS Critical Competency

The appropriate staffing of the VS to allow for veterinary and technical functions to be undertaken efficiently and effectively.

2. Desired Level of Advancement (DLA)

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) level 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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

To continue with the current staffing policies and increase the minimum training requirements for selected veterinary para-professional positions (e.g border inspectors).
To make an important investment to provide adequate housing to VSD staff, in particular for those posted in remote areas of the country.

4. Activities to implement (chronological)

Specific activities		No specific activities have been identified for this 5 year period aside of those detailed in the different CCs.
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

I-7. Physical resources

1. Definition of this PVS Critical Competency

The access of the VS to relevant physical resources including buildings, transport, telecommunications, cold chain, and other relevant equipment (e.g. computers).

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

To allocate adequate funds to allow for the proper allocation and maintenance of physical resources
To make an important investment build, renew and maintain housing for VSD staff, in particular for those posted in remote areas of the country.

4. Activities to implement (chronological)

Specific activities		- The management of physical resources is included under CEC I.11 - Review existing physical resources and develop a plan with priorities for maintain/upgrading/replacing as required - Update the resources register and include schedules for maintenance and replacement - Identify annual budget for repairs and maintenance, and capital budget for replacement/purchase of major items
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Register of physical ressources
Programme and records of maintenance/renewal

I-8. Operational funding

1. Definition of this PVS Critical Competency

The ability of the VS to access financial resources adequate for their continued operations, independent of political pressure.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

To allocate adequate funds to allow for the proper execution of VSD programmes, special emphasis should be given to field and laboratory services.

4. Activities to implement (chronological)

Specific activities		- The operational funding requirements is included under the different CECs - Develop a multi-year programme of VS activities with an indicative budget - Develop annual operational plans for all VS activities with detailed budget - Assure the allocation of funds to complete the operational plan. - Review and update the plan annually, including the level of completion of projected activities
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

I-9. Emergency funding

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

4. Activities to implement (chronological)

Specific activities		- No specific activities have been identified for this 5 year period
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

I-10. Capital investment

1. Definition of this PVS Critical Competency

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.

2. Desired Level of Advancement (DLA)

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.

3. Strategy to reach the Desired Level of Advancement (if relevant)

To develop a capital investment plan to upgrade capital items necessary for service delivery, and to gain access to these funds

4. Activities to implement (chronological)

Specific activities		- Develop a five year investment plan - As part of the management of physical resources (CEC I.7) develop a replacement programme for equipment and major renovations of facilities - Develop a purchase plan with priorities - Review and revise the capital investment plan annually
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Appendix 2: Glossary of terms

Terms defined in the Terrestrial Code that are used in this publication are reprinted here for ease of reference. Moreover, several key terms used in this document have also been defined.

Activities

means the general actions enabling the expected result for the critical competencies to be achieved, according to the defined national priorities. These activities may be related to general recommendations contained in the OIE PVS Evaluation report of the country.

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 Aquatic Animal Health Code in the whole territory.

Critical competencies

means the individual sub-components of the four fundamental components of the OIE PVS Tool: I Human, Physical and Financial Resources; II Technical Authority and Capability; III Interaction with Stakeholders; and IV Access to Markets.

Decentralisation

means transfer (authority) from central to local government

Deconcentration

means the system in which the administration of a region is executed by local authority subject to a central authority

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.

Expected results

means the level of advancement of a critical competency that the Veterinary Services of the country are aiming to reach. This level of advancement is chosen by the Veterinary Services and the experts at the start of the mission. A critical competency corresponds to a requirement in terms of OIE standards for the organisation and competence of the Veterinary Services. The level of advancement corresponds to the extent to which this requirement has been met and is measured using the OIE PVS indicators

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.

National priorities

Each country has its own national priorities regarding livestock, veterinary public health and animal health, as well as on structuring policies regarding Veterinary Services. These priorities are taken into account during the PVS Gap Analysis mission.

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.

Objectively verifiable indicators

means evidence on which to measure the advancement of the activities included in the programme

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.

OIE PVS indicators

means evidences on which to determine objectively the level of advancement of the Veterinary Services for each critical competency, as defined in the OIE PVS Tool.

PVS Gap Analysis

means the determination of the activities and resources needed to sustainably strengthen Veterinary Services, in order to achieve the expected results for the relevant critical competencies of the PVS Tool which are relevant to the national context.

Risk analysis

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

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.

Task

means the detailed sub-component of an activity

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 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 and Aquatic Codes 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.

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VLU

means “Veterinary Livestock Unit”. This is a livestock unit used to quantify veterinary activities for a given animal population, calculated by establishing equivalence between species using a coefficient. The number of VLUs in a country is calculated as being equivalent to the number of cattle + 0.1 x the number of small ruminants + 0.5 x the number of horses and dromedaries + 0.3 x the number of donkeys + 0.2 x the number of pigs + 0.01 x the number of poultry. This unit is different from the Livestock Standard Unit (LSU), which determines the equivalence between species according to their production potential.

Appendix 3: List of documents gathered in the PVS Gap Analysis mission

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

Ref	Title
	PRE-MISSION DOCUMENTS
E1	2015 PVS Follow-up Mission Report
E2	Data requested
	MISSION DOCUMENTS
E3	MoA Strategic Plan 2014 – 2019, dated February 2014
E4	DVLS Animal Health Strategic Plan 2015
E5	DVLS Gap presentation, dated 2 October 2015
E6	SNAIP Main Report Draft Summary Report, dated May 2014
E7	National Development Plan 2014-2017; Ministry of Economic Planning and Development, Economic Planning Office, March 2014
E8	DVLS Organogram
E9	Livestock Development Plan 1995 (MoA)
E10	Poverty Reduction Strategy and Action Plan (PRSAP) 2008
E11	OIE PVS Gap Presentation, November 2015 (DVSL)
E12	Laboratory goals (CVL) 2015
E13	SADC Livestock Technical Committee Meeting (SADC/LTCM/May, 11/2) with SILAB agreement
E14	Poverty Reduction Strategy and Action Plan (PRSAP) 2008, volume 2

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

Day (D)	Purpose of the meeting	Participants
D1 2 Nov	Opening meeting	Deputy Permanent Secretary, OIE Delegate, VSD Director and heads of technical department
	Definition of the national priorities and the levels of advancement	OIE Delegate, VSD Director and heads of technical department
D2 3 Nov	Technical meeting on Trade and market access	OIE Delegate and heads of technical department
D3 4 Nov	Technical meeting on Veterinary Public Health inspection including veterinary products and residues	OIE Delegate and heads of technical departments and representative of MoH and Municipal Government
D4 5 Nov	Technical meeting on the Animal Health and veterinary services field network	OIE Delegate and heads of technical departments; regional and subregional personnel
D5 6 Nov	Technical meeting on laboratories	OIE Delegate and heads of technical departments
	Meetings with resource persons from cross-cutting departments: finance, legislation, personnel management	
D6 and D7 7 -8 Nov	First synthesis of findings by the team of experts	The experts
D8 9 Nov	Plenary meeting for the preliminary presentation of the proposed objectives and activities	OIE Delegate and heads of all technical departments
	Collection of additional information & finalisation of the PVS Gap Analysis.	The experts
D9 10 Nov	Final meeting with presentation of preliminary report with courtesy visit to Minister and Permanent Secretary	Minister, Permanent Secretary Deputy Permanent Secretary , PS, OIE Delegate, heads of relevant departments
D 10 11 Nov	Drafting and validation of report data	The experts