PVS Pathway

PVS Gap Analysis Mission Report

SOUTH AFRICA

June 2014

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WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future

PVS Gap Analysis report

South Africa

16-27 June 2014

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LIST OF ACRONYMS, ABBREVIATIONS AND/OR SPECIAL TERMS

AI	Avian Influenza
AH	Animal Health Pillar of the PVS Gap Analysis
AHT	Animal Health Technician
ASF	African Swine Fever
AU-IBAR	African Union International Bureau of Animal Resources
BBAT	Rose Bengal Agglutination Test
CSF	Classical Swine Fever
CC	Critical Competency
CEC	Cost Estimation Card
DAFF	Department of Agriculture, Forestry and Fisheries
DoH	Department of Health
DTI	Department of Trade and Industry
FAO	Food and Agriculture Organization of the United Nations
FAOSTAT	Statistics Division of the FAO
FC	Fixation Complement test
FMD	Foot-and-Mouth Disease
FTE	Full Time Equivalent
IMQAS	International Meat Quality Assurance Services
LAB	Laboratory Pillar of the PVS Gap Analysis
MVS	Management of Veterinary Services (including Regulatory Services) Pillar of the PVS Gap Analysis
NDV	Newcastle Disease Virus
OIE	World Organisation for Animal Health
OVI	Ondersterpoort Veterinary Institute
PPP	Public Private Partnerships
PRRS	Porcine Reproductive and Respiratory Syndrome
PVS	Performance of Veterinary Services
PVS Tool	OIE Tool for Evaluation of the Performance of Veterinary Services
SADC	Southern African Development Community
SAVC	South African Veterinary Council
Terrestrial Code	OIE Terrestrial Animal Health Code
TB	(Bovine) Tuberculosis
TRADE	Trade Pillar of the PVS Gap Analysis
VFN	Veterinary Field Network
VFS	Veterinary Field Station
VLU	Veterinary Livestock Unit
VPH	Veterinary Public Health Pillar of the PVS Gap Analysis
VS	Veterinary Service(s)
VSB	Veterinary Statutory Body
WAHIS	OIE World Animal Health Information System
WAHID	OIE World Animal Health Information Database
WHO	World Health Organization of the United Nations

ACKNOWLEDGEMENT

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The team would like to thank particularly Mr Ramasodi (Acting Deputy Director General of Agricultural Production, Health and Food Safety), Dr Modisane (Chief Director of Animal Production and Health), Dr Maja (Director Animal Health) and Dr Songabe (Director Veterinary Public Health).

The team also would like to express its gratitude to Dr Bronkhorst for all her efforts in collecting and transferring the data we requested before, during and after the mission.

EXECUTIVE SUMMARY

Having faced numerous challenges in animal disease management over the past decade, including with foot-and-mouth disease, avian influenza, rift valley fever, African swine fever and African horse sickness, the Veterinary Services of South Africa requested an OIE PVS evaluation in 2012.Although the VS were found to be relatively well resourced, fundamental structural deficiencies were highlighted in the report including: a broken chain of command, lack of technical independence and low levels of veterinarians involved in animal health (AH) or veterinary public health (VPH) field activities.

Since that time, South Africa has recovered its official free status for FMD and gained official free status for PPR.

The public sector of the VS also responded to the findings of the OIE PVS evaluation by developing a number of draft strategic documents, also involving consultation with stakeholders. These include in the areas of animal welfare and veterinary public health (via a working group for independent meat inspection). Documents have also been progressed in compulsory community service (CCS) for young graduated veterinarians and primary animal health care (PAHC).

National policies for livestock development have been developed and are dedicated to increasing national food security, promoting exports and tackling rural poverty and malnutrition.

The aim of CCS and PAHC is to provide small scale farmers (estimated 1.2 million, owning 40% of cattle and 20% of small ruminants) with clinical veterinary services and extension. The draft proposals currently do not ensure clear and full integration of these farmers in any national AH, VPH or VS strategies of a public good or regulatory nature. The proposals could be seen as charity projects that might distort the market for private good, clinical veterinary services and whose sustainability and contribution to socio-economic development is questionable.

One of the main findings of the Departmental working group on meat inspection was clearly establishing that meat inspection in South Africa had been privatised to the extent that it was no longer independent and that it should come back under more of a government mandate. Also identified was the need to unify all relevant General Directorates from different Departments under a single National Food Authority to ensure a whole chain food safety from farm to fork. However this report failed to identify the need to involve veterinarians on site to implement ante and post mortem inspection.

Intensive and productive meetings were held during the PVS Gap Analysis mission, with all relevant General Directorates of DAFF, with DoH and with some Provincial VS. The current report proposes ways forward to overcome the challenges in organisation of the VS and recommends the development of clear strategies for the next five years and more.

Though South Africa is a net importer, it is also a recognised exporter of animals and products of animal origin. The trade chapter of this report describes the strategies and resources to maintain and improve border security as well as export certification. However, the main challenge will be to establish efficient and effective identification of animals and associated movement controls. This may include compulsory, life-long individual identification of cattle, which requires detailed operational planning in the medium term, including its financing by the cattle industry. Individual identification costs are high and can be considered beneficial only with a long term view and for multiple purposes, including to mitigate theft, aid production management, as well as for epidemiological and disease control purposes such as for zoning or outbreak tracing.

The opportunity of investment in VPH could be a model for the reorganisation, modernisation and improvement of the VS in the next five years. There is currently a political commitment to create a single National Food Authority, unifying current responsibilities separated between the Department of Agriculture, Fisheries and Forestry (DAFF), the Department of Health (DoH), the Department of Trade and Industry (DTI) and local municipalities. The PVS Gap Analysis report proposes to clarify lines of responsibility, taking into account existing competences at national level and the needs and constraints for the future. Inside such unified Authority, DAFF should be responsible for the safety of food products of terrestrial animal origin up to the end of processing (and not as currently only for export, but also for national production), DTI should be in charge of all of food products of aquatic animal origin all along the value chain, and MoH should be able to define, categorise, register and control establishments distributing food (commercial restaurants, dining halls, butcheries, supermarkets, etc.). Such National Food Authority would allow food safety from slaughterhouses to sale to be covered in the one agency, recovering the chain of command from central to field level. However, if a true "farm to fork" approach is sought, this Authority should also include the current AH directorate, as well as identification/traceability and import/export related mandates and activities.

Improving animal production food safety will require important human resources investment in slaughterhouse inspection, especially of veterinarians, and this will only be completely achievable over approximately 10 years, if initiated now. A small number of highly qualified staff will be necessary for development of accreditation and inspection of facilities along the whole food chain. There will be a need to find sustainable financing mechanisms through levies applied to the food industry. Such levies should be applied per head or per amount of product, and not per site or production unit, in order to ensure mutualisation of the cost of inspection and to avoid discrimination of small or start-up businesses and units.

It is also essential for the VS to recover control of distribution and use of veterinary medicines by developing regulations in line with prudent use incorporating risks from residues, anti-microbial resistance and environmental impacts, and this will need strong political commitment against the shorter term interests of farmers and the pharmaceutical sector.

In addition to maintaining current animal health (AH) free status, the VS should develop and implement new, properly regulated national disease control programmes (eg Tuberculosis, Brucellosis, Rabies, etc). However, the main paradigm shift in animal health will be in convincing both policy makers and stakeholders of the need to promote more regular contact between farmers/animals and qualified veterinarians. This is required to increase the sensitivity and accuracy of disease surveillance, for early detection and rapid response, by involving more highly competent staff or officially delegated private veterinarians in the VS. This level of competence provides a fundamental trust from both officials and farmers that regulatory services can be delivered and clinical services provided, both of which strongly benefit the development of livestock production in South Africa. An efficient way to promote closer veterinary contact with farmers is through a strong commitment to delegation of official AH or VPH activities to private veterinarians, with relevant financing and oversight of implementation. Official delegation can be expected to link hundreds of private veterinarians with the chain of command of the VS, acting as part-time official veterinarians for specific tasks, with the support of an adequate and regular funding.

If the sector referred to as the commercial sector will be able to cover the costs of national AH programmes, the VS has a duty to implement them in all animal production sectors and all over the territory. In order to ensure that all small farmers have access to relevant services, the primary animal health care (PAHC) already benefits from a significant budget allocation (15 million USD / year). During the mission, the strategic objectives of PAHC have been defined as (i) ensuring access for all relevant livestock holders to all relevant national AH and VPH official programmes, (ii) organising regular contact with private veterinary

services (iii) ensuring tailored extension and public awareness during implementation of (i) and (ii) to assist in the development of South Africa's livestock sector.

Finally the Management of VS should be reorganised: the central level responsible for relevant legislation, strategic planning and national AH control programme development, 9 Provincial Veterinary Head Offices in charge of operational planning, and 52 District Veterinary Offices in charge of coordination of field staff (public official veterinarians or private veterinarians under official delegation). During a transition period, 48 of the 100 current State Veterinary Offices should be maintained as "Public Veterinary Clinics" as long as the private veterinary sector is not be present, through a temporary delegation agreement established between the VS, the Veterinary Statutory Body (VSB) and private veterinary associations. Also symbolic of modernisation of the VS, an important investment will be made in recruiting skilled staff with other university degrees, especially in information technology and data management (which needs a comprehensive review in order to be coherent, compatible, unified, accessible and useful), legal advice (where there are specific needs such as in animal welfare and official delegation) and communication/extension.

The overall cost of the VS is estimated as coherent with the national animal health policies and existing constraints. Many aspects of VS are expected to be cost recovered at least from the sector referred to as the commercial sector for cattle identification and national AH programmes and by the meat or milk industry in VPH.

METHODOLOGY OF THE PVS GAP ANALYSIS MISSION

Recognising countries as the sole owner of their development efforts and ambitions for the future, the objective of a PVS Gap Analysis (PVS Costing Tool) Mission is to facilitate the definition of a country's 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.

It also encourages the constructive engagement and participation of all interested parties, including, for example, the private sector, consumer groups and other Competent Authorities with shared interest in animal and veterinary public health. Brainstorming together, utilising combined skills, understanding and building upon gaps, a PVS Gap Analysis Mission offers a country Veterinary Services an opportunity to undertake a strategic planning process to identify the necessary investments required to reach their national goals and improve their compliance with international standards, over a five year timeframe.

The PVS Gap Analysis is a key instrument for the development of a Veterinary Services' strategic plan and can empower country Veterinary Services to advocate for change (by quantifying and justifying the cost of efficient and effective Veterinary Services) when negotiating with relevant government Ministries and Parliament as well as with existing and potential donors.

During this Mission, the Veterinary Authority supported by the PVS Gap Analysis Expert Team undertook the following steps:

a. **defined the Veterinary Services priorities for each of the following categories**: (i) Livestock Development and Trade; (ii) Veterinary Public Health; (iii) Animal Health; and (iv) Organisation and Management of Veterinary Services.

b. **identified a strategy for each of the 5 PVS Gap Analysis Pillars**: (i) Trade; (ii) Veterinary Public Health; (iii) Animal Health; (iv) Laboratories; and, (iv) Management of Veterinary Services (including Regulatory Services). These strategies constitute the Veterinary Services' five year plan towards meeting its priorities based on improved compliance with international standards.

c. **determined the Desired Level of Advancement towards improved compliance with international standards for each of the Critical Competencies of the PVS Tool**. Based on the outcomes of the initial PVS Evaluation and for each of the 41 Critical Competencies, the Veterinary Services establish their Desired Level of Advancement towards improved compliance with international standards to be reached over a period of five years.

d. **defined the activities to be implemented by the Veterinary Services over the next five years** in order to reach their Desired Level of Advancement. Improving compliance with international standards, meeting priorities and implementing strategies requires the definition of activities to be undertaken by the Veterinary Services over a five year timeframe.

e. **estimate the cost of the corresponding human and physical resources required to implement the identified activities (workload)**.Strategically rationalising activities to accomplish strategies and reach its priorities enables the Veterinary Services to undertake a brainstorming exercise to quantify and assess the required human, physical and financial resources and to identify the cost of the Veterinary Services' activities defined during the PVS Gap Analysis to improve compliance over a five year timeframe. The results of this costing should be used by the Veterinary Services to advocate for and demonstrate the resources required for its effective and efficient functioning in line with national priorities.

I The PVS Gap Analysis process

I.1 Background information

Following a request to the OIE from the national government, an evaluation of the Veterinary Services of South Africa 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 October 2012 by a team of independent OIE certified experts.

I.1.A Country details

Table 1. Geographic features

Agro-ecological zones	Rainfall (mm/year) – see annual rainfall map
Highveld	approx 800mm/yr
Lowveld	approx 800mm/yr
Bushveld	approx 500mm/yr
Karoo	approx 300mm/yr

Topography	Km²	%
Total area	1,221,037	
Agricultural land	993,780	81
Pastures (veld) *	778,221	64
Arable land	145,000	12
Forest	92,030	7
Wetlands	4,800	4
Conservation areas	75,000	6

http://www.tradingeconomics.com
http://www.info.gov.za/aboutsa/environment.htm

(*) arid savanna, arid grassland, nama-karoo, succulent karoo, and thicket

Table 2. Demographic data

Human population		Livestock households/farms	
Total number	48,502,063	Total number of households (h/h)	9,059,571
Average density / km²	41.4	Number of commercial farm h/h	45,818
% of urban	60.7	Number of communal farm h/h	1,292,600
% of rural	39.3	Estimate of livestock-owning h/h	850,000

http://www.tradingeconomics.com
http://www.statssa.gov.za
http://www.daff.gov.za
http://www.ru.ac.za

Table 3. Current livestock census data

Animals species	Total Number	Specific numbers	
Cattle	13,688,328	Dairyanimals	1,279,241
		Beef or dual purpose animals	2,907,000
Sheep	24,302,776		5,199,000
Goats	6,165,051		686,000
Pigs	1,583,574		2,614,000
Horses	300,000		
Donkeys	150,500		
Mules	14,300		
Poultry	160,000,000	Day-old pullet placement (layers)	25,630,000
		Layers	24,160,000
		Day-old parent pullets (broiler)	9,300,000
		Broiler breeder hens	6,520,000
		Broiler chick production	1,036,000,000
Ducks	380,000		
Turkeys	520,000		
Geese & guinea fowls	137,000		
Beehives	65,000		

[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

(*) Number of slaughtered animals (unless mentioned otherwise)
2011 data DAFF I 2011 data SAPA I 2010 data FAOSTAT

Table 4. Animal and animal product trade data

Animals and animal products	Average annual import		Average annual export	
	Quantity (2011)	Value (2011)	Quantity (2011)	Value (2011)
Live animals		R 256,990,219		R 252,356,524
• Cattle	100,000 h (2009)		80,000 h (2009)	
Meat & edible offal		R 3,988,910,750		R 477,917,831
• Beef/veal	19,000 MT		12,000 MT	
• Pork	42,000 MT		2,000 MT	
Poultry products		R 3,203,000,000		
• Broiler meat	326,000 MT		8,000 MT	
• Turkey meat	29,000 MT		0 MT	
TOTAL		**R 4,245,900,969**		**R 730,274,255**
Estimate in Euro		**€ 424,590,000**		**€ 73,027,000**

http://www.indexmundi.com

Table 5. Economic data (2014 estimates)

National GDP	R 3,789 billion
	€ 378 billion
National budget	R1030 billion
	€ 103 billion
Budget deficit (as percentage of the GDP)	4.0 %
Agricultural GDP	R 58 billion
	€ 5.8 billion
	2.2 %
Livestock GDP (as compared to Agricultural GDP)	49.0 %
Livestock GDP (as compared to National GDP)	1.1 %
Annual public sector contribution to agriculture (DAFF budget only)	R 4.554 billion
	€ 0.45billion
Annual public sector contribution to agriculture (as a percentage of the national budget)	0.44 %
Annual budget of the Veterinary Services (DAFF / DAH budget only)	not available
Annual budget of the Veterinary Services (as a percentage of the DAFF budget)	not available

http://data.worldbank.org/country/south-africa
http://www.info.gov.za/aboutsa/agriculture.htm
http://www.tradingeconomics.com
http://www.cer.org.za

I.1.B Current organisation of the Veterinary Services

The South African Veterinary Services (VS) comprises a decentralised system with a national VS and 9 separate provincial VS. Some provinces are further decentralised at the local municipal level through the so-called matrix system. Legislatively, animal health is controlled through the Animal Diseases Act that specifies respective national and provincial legislative competences. Coordination is carried out through an Implementation Protocol as agreed to by the relevant Directors of VS nationally and in each jurisdiction that aims to differentiate animal health responsibilities. More detailed, ongoing coordination is through an inter-governmental MinTECH Veterinary Working Group which reports to higher committees comprising the Agricultural Heads of Departments and Ministers. The Veterinary Working Group (Directors of VS) is supported by further specialised intergovernmental sub-groups such as those relating to veterinary laboratory services and veterinary epidemiology.

The National VS sit within the Agricultural Production, Health and Food Safety Branch of the Department of Agriculture, Forestry and Fisheries (DAFF) in Pretoria. The

functions of the VS according to OIE guidelines lie within two different Chief Directorates - “Inspection and Quarantine Services” and “Animal Production and Health”.

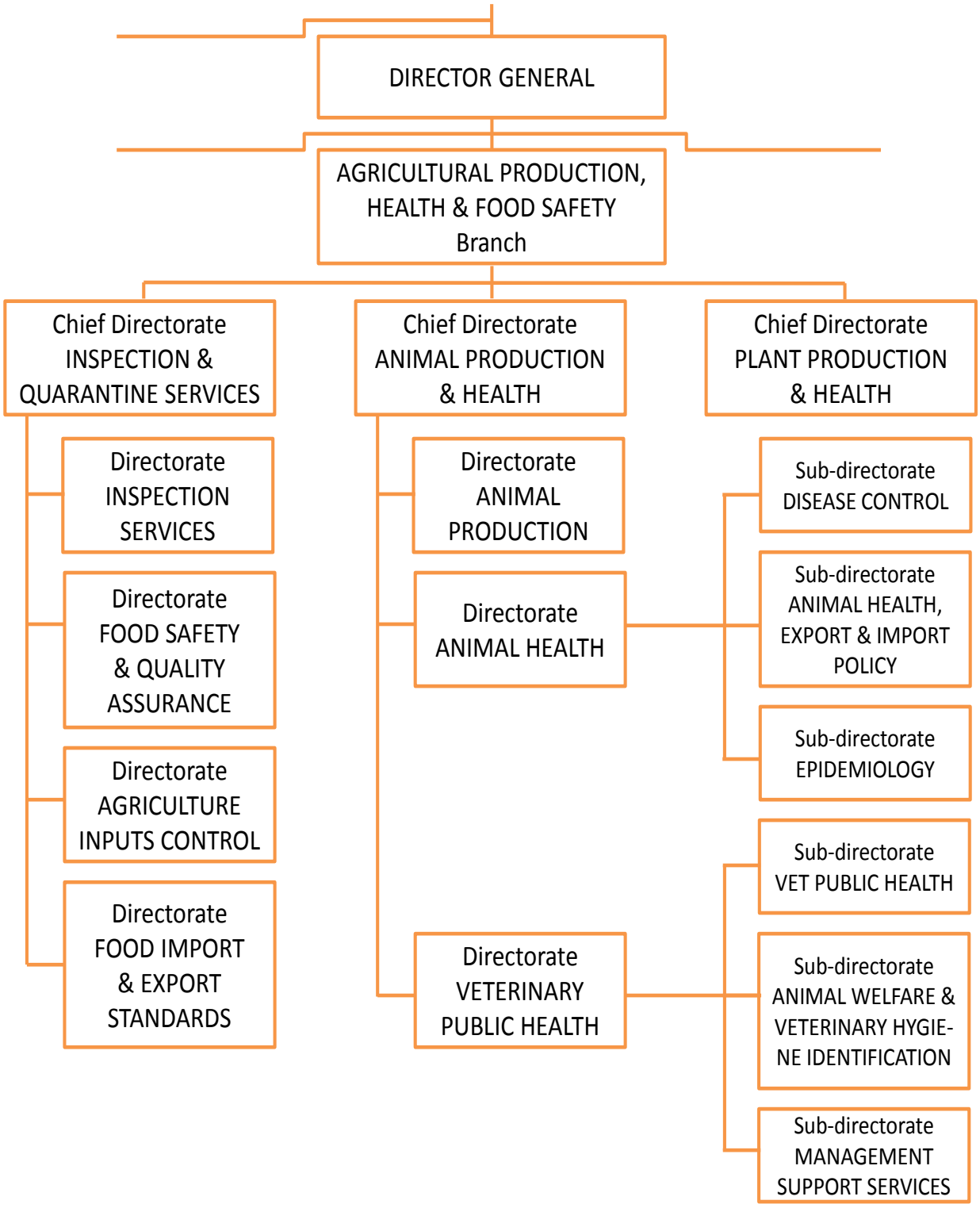
The Chief Directorate for Inspection and Quarantine Services is divided into four directorates - Inspection Services, Food Safety and Quality Assurance, Agriculture Production Inputs Control and Food Import and Export Standards. This Chief Directorate deals with all agricultural products including animals. Border inspection and quarantine is in the Inspection Services Directorate. Certification of exports and import permits is in the Directorate for Food Import and Export Standards; it lies with the Provinces for animal products. The control of over-the-counter veterinary medicines (Act 36) is in the Agriculture Inputs Control Directorate (scheduled medicines are the under control of the MoH within Act 101).

The Animal Production and Health Chief Directorate is divided into Animal Production, Veterinary Public Health and Animal Health Directorates.

The Animal Health Directorate comprises sub-directorates of Epidemiology, Disease Control, and Import and Export Policy.

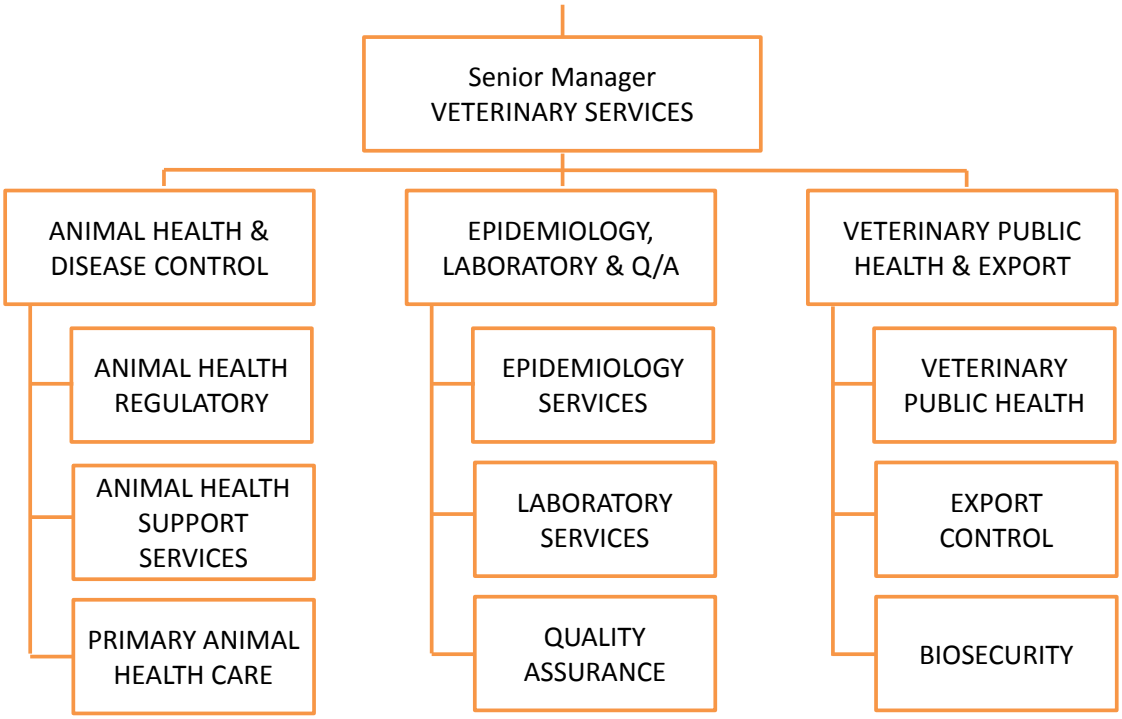
The Veterinary Public Health Directorate comprises sub-directorates of Veterinary Public Health, Animal Welfare, Hygiene and Identification, and Management Support Services.

The National VS set national policy/protocols/guidelines and finance additional non-routine national programmes (such as relating to AI and pig diseases active surveillance, and FMD active surveillance and vaccination) delivered via the provinces. They are expected to provide leadership and additional funding for controlling disease outbreak responses of national significance. They are also responsible for the sanitary regulation of international trade in animals and animal products (including international border inspections and import health certification), providing field animal health services for the Kruger National Park and along relevant international borders, (e.g. fence maintenance and monitoring), and providing laboratory approvals for official diagnosis.


DIRECTOR GENERAL
AGRICULTURAL PRODUCTION, HEALTH & FOOD SAFETY Branch
Chief Directorate INSPECTION & QUARANTINE SERVICES
Chief Directorate ANIMAL PRODUCTION & HEALTH
Chief Directorate PLANT PRODUCTION & HEALTH
Directorate INSPECTION SERVICES
Directorate FOOD SAFETY & QUALITY ASSURANCE
Directorate AGRICULTURE INPUTS CONTROL
Directorate FOOD IMPORT & EXPORT STANDARDS
Directorate ANIMAL PRODUCTION
Directorate ANIMAL HEALTH
Directorate VETERINARY PUBLIC HEALTH
Sub-directorate DISEASE CONTROL
Sub-directorate ANIMAL HEALTH, EXPORT & IMPORT POLICY
Sub-directorate EPIDEMIOLOGY
Sub-directorate VET PUBLIC HEALTH
Sub-directorate ANIMAL WELFARE & VETERINARY HYGIE-NE IDENTIFICATION
Sub-directorate MANAGEMENT SUPPORT SERVICES

Structures within the provincial VS are variable but typically comprise separate animal health, veterinary public health (or specialised services) and clinical services functions. The provincial VS are responsible for policy, funding and implementation of routine field animal health activities; including dip-tank and auction inspections, vaccination (non-FMD) and awareness campaigns, clinical services in communal areas, disease investigations and testing (e.g. bovine tuberculosis and brucellosis), the issuing of livestock movement permits (including co-signed export certification), and auditing meat hygiene/inspection and compartmentalisation in the commercial sector. A few provinces (Limpopo, Free State, Kwazulu Natal and being piloted in Mpumalanga) have a so-called "matrix" structure which allocates field animal health services to the authority of generic district and/or municipality agricultural authorities.

Generic organogram of provincial VS could be synthesized as below:



Each provincial VS supervises some State Veterinary Offices (around 95 in total) and each State Veterinary Office supervises some AHT sub-offices (around 300 in total).

Currently, because of the break in the chain of command, the VS are not able to provide a clear description of the distribution of their physical resources and their financial resources, however the VS are able to provide this distribution for their human resources.

Veterinary Services staffing comprises registered veterinarians at national, provincial, and district levels. At state (municipality) levels, typically one or two state veterinarians working in a state office will supervise a control (head) animal health technician, who in turn manages a team of animal health technicians who deliver field activities, some from small satellite offices. In veterinary public health, monthly meat inspection audits are conducted by dedicated veterinary para-professionals (chief meat inspectors) and/or animal health technician staff at provincial level. Meat inspectors permanently working within abattoirs are most commonly employed by external private companies (e.g. IMQAS) or directly by the facility owner. Private veterinarians primarily service the commercial livestock sector and have limited official functions apart from passive surveillance, sampling relating to movement permits, and delivering compulsory rabies vaccination for pets. There are relatively

few veterinarians working in veterinary laboratories, which are staffed by a further category of veterinary technologists.

In South Africa, all veterinarians, animal health technicians and veterinary technologists are registered by the South African Veterinary Council. Meat inspectors are registered through a Human Health Professions Council.

The Ondersterpoort Veterinary Institute (OVI) is the national animal health reference laboratory. It lies outside the VS structure under apara-statal, the Agricultural Research Council, with DAFF providing annual funding and accreditation for official diagnostic functions. OVI is supported in official diagnostic functions by several DAFF approved private (e.g. Deltammune, IDEXX) and university laboratories, to which testing can be outsourced. Provincial laboratories undertake relevant diagnostic functions tailored to provincial priorities and programmes such as for bovine tuberculosis and brucellosis surveillance, and suspect controlled/notifiable disease post-mortems. Satellite laboratories from provincial laboratories provide basic diagnostic services.

The provision of veterinary clinical services in South Africa is delivered via a dual system. Private veterinarians service the commercial sector with little government interaction and state animal health technicians provide limited services to the emerging or communal sector. The policy for funding clinical medicines and vaccines for the emerging or communal sector varies between provinces with a combination of fully funded, means tested or 'advice only' policies in place. VS coverage of communal areas, especially outside the FMD protection zone, is limited. A new policy of one year government salaried compulsory community service by new veterinary graduates was due to start in 2014, funded by the national VS. It was yet to begin at the time of the PVS Gap Analysis mission in June 2014. Exactly how this will be undertaken is yet to be determined – there are some reports that the focus for the recruits will be only on communal clinical services and whilst others report that these recruits will also work on regulatory functions.

The regulation of veterinary medicines in South Africa is shared between the human and animal health authorities. 'Over-the-counter' veterinary medicines (remedies) are regulated by the national VS under Act 36; scheduled medicines are regulated by the human health authorities under Act 101. Currently 'over-the-counter' medicines under Act 36 include several vaccines and antibiotics (e.g. tetracyclines and sulphonamides), which are freely available, animal unseen, to anyone from retail pharmacies and agricultural 'co-ops'. For the communal or emerging livestock sector, animal health technicians may or may not provide advice relating to the use of these medicines.

Stakeholder communication and consultation with the national VS is facilitated by a newly formed Animal Health Forum which comprises the major livestock and veterinary stakeholder groups at national level. Stakeholder communication and consultation at provincial and field levels is variable, but generally is informal only.

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

The following table gives an indicative list of those elements.

Table 6. Site sampling	**Terminology or names used in the country**	Number of sites
GEOGRAPHICAL ZONES OF THE COUNTRY		
Climatic zone	*Highveld, Lowveld, Bushveld, Karoo*	4
Topographical zone	*See table 2 : topography*	4
Agro-ecological zone	*See map of agricultural regions*	10
ADMINISTRATIVE ORGANISATION OF THE COUNTRY		
1st administrative level	*2 CD, 6 Directorates, 6 Sub-D*	14
2nd administrative level	*Provincial*	9
3rd administrative level	*District*	52
4th administrative level	*Municipality*	241
VETERINARY SERVICES ORGANISATION AND STRUCTURE		
Central (Federal/National) VS	National	1
Internal division of the central VS	2 chief D, 6 Directorates, 6 subD	14
1st level of the VS	Provincial Department	9
2nd level of the VS	District & State Vet Offices (variable)	± 100
Veterinary organisations (VSB, unions…)	SAVC, SAVA	2
FIELD ANIMAL HEALTH NETWORK		
Field level of the VS (animal health)	AH technician sub-offices	± 300
Private veterinary sector	Private field vet practices	350
Other sites (dip tanks, crushpens, etc.)	Diptanks	?
VETERINARY MEDICINES & BIOLOGICALS		
Production sector	OBP + 2 private companies	± 3
Import and wholesale sector		?
Retail sector	Rural private vet practices Pharmacists Farmers cooperatives	± 350 800
VETERINARY LABORATORIES		
National laboratories	OVI	1
Regional and local laboratories	Provincial Laboratories	18
Associated, accredited and other labs	Approved private laboratories	15
ANIMAL AND ANIMAL PRODUCTS MOVEMENT CONTROL		
Bordering countries	Lesotho, Swaziland, Mozambique, Zimbabwe, Botswana, Namibia	6
Airports and sea ports BIP	4/12 airports, 4/7 seaports	8
Terrestrial border BIP		16
Other terrestrial border posts not BIP		48
Quarantine stations for import	Government	2
Internal check points	Zoning	?
Live animal markets	Auctions	?
Zoning : FMD, ASF & AHS Compartmentalisation : pigs, poultry ostriches Private export quarantine		3 ? 45
PUBLIC HEALTH INSPECTION OF ANIMALS AND ANIMAL PRODUCTS		
National market slaughterhouses	High thru-put Low thru-put	185 394
Local market slaughterhouse	Rural	138
Processing sites (milk, meat, eggs, etc)	Meat, Milk Taxidermy	?
Retail outlets (butchers, shops, restaurants)		?
TRAINING AND RESEARCH ORGANISATIONS		
Veterinary university	Onderstepoort Vet Faculty	1
Veterinary paraprofessionals chools	Please refer to C.C. I.2.B.	4
Veterinary research organisations	OVI, OBP, 2 Wildlife, 2 pharm.lab	6
STAKEHOLDERS' ORGANISATIONS		
Agricultural Chamber / organisation	Agri-SA	1
National stakeholders organisations	Please refer to C.C. III.2.	14
Local livestock farmers organisations	Commercial, Game, Emerging	?
Consumer organisations	SA National Consumers Union Consumer Goods Council of SA	2

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

Introduction

At the request of the South African OIE Delegate, an OIE PVS Evaluation mission was conducted from 1st October to 19th October 2012 by a PVS expert team of Dr Eric Fermet-Quinet (PVS team leader), Dr Emilio Leon (PVS expert), Dr Julia Punderson (PVS expert) and Dr John Stratton (PVS expert). Dr Patrick Bastiaensen joined the team as an OIE observer and assisted with the final week of the mission.

The stability and development of many countries depends on the performance of their agricultural sector. The Veterinary Services (VS) play 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, are 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 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 ongoing support for national development based on the PVS findings.

PVS evaluations assess 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 South African VS have managed a number of major animal disease issues and events with important national implications over recent years:

- South Africa lost its FMD free zone status and access to important export markets following an FMD outbreak in 2011. Eradicating this outbreak and proving freedom was challenging and, at the time of the PVS Evaluation, South Africa was only just attempting to regain its official FMD free zone status. This official free zone status was regained in May 2014 during the OIE General Session just prior to the OIE PVS Gap Analysis visit.
- H6 avian influenza in ostriches has restricted market access for poultry and ostrich products.
- There are ongoing threats from other relatively recent disease outbreaks including African Swine Fever, African Horse Sickness and Rift Valley Fever.
- Endemic livestock diseases including lumpy skin disease, corridor disease, heartwater, sheep scab and Newcastle disease continue to have significant impact on farmers and livestock industries.
- Zoonoses including bovine brucellosis, bovine tuberculosis, anthrax and rabies remain endemic and continue to threaten human health.

Considering these major animal health threats and the numerous challenges faced, the VS of South Africa requested an OIE PVS evaluation. This request was endorsed by the Parliamentary Portfolio Committee on Agriculture, Forestry and Fisheries, reflecting the high priority placed by government on improving the national VS. It is understood that South Africa will consider the OIE PVS Evaluation and PVS Gap Analysis findings in the further development of high level strategic planning for VS improvement.

Key findings of the evaluation

- **Human, physical and financial resources**

In general terms, human, physical and financial resources of the VS are adequate and regularly provided and maintained, although there are variations between provinces.

There is an insufficient number of veterinarians in regular contact with farms and animals, especially in extensive commercial, small holders or communal areas; there are also a limited number of veterinarians who conduct on-site inspections of animal processing facilities. This could limit the ability to certify products and activities in compliance with OIE standards and/or import requirements, and limits the expansion of export markets. It also reduces the sensitivity of the passive surveillance/early detection system.

Although veterinary para-professionals are well supervised by veterinarians, the VS over-rely on them in all activity areas. The KPMG consultancy recommendation of a ratio of six veterinary para-professionals per veterinarian is regarded as too high for a modern VS.

Onderstepoort Veterinary Faculty is internationally recognised as a first class veterinary teaching school. It has recently increased the number of undergraduates to meet increasing demands. The school is currently investing in harmonising the veterinary curriculum within SADC. As in many developed countries, the highly selective process of recruiting students may create unrealistic expectations of high income from veterinary practice. In South Africa, it also fails to ensure a geographically and socio-cultural representative distribution of students impacting negatively on the distribution of veterinarians between the different production systems and geographic areas. This has led some provinces to send students to be trained abroad with possible downgrading of technical capabilities.

Veterinary para-professionals initial training is considered excellent. However, the number of graduates exceeds the requirements and leads to a high rate of unemployment – this may lead to development of informal veterinary activities.

Continuing education is a prerequisite to maintaining registration of veterinarians by the VSB: it is widely provided in the public sector.

The technical independence of the VS of South Africa is well supported by the quality of veterinarians and their level of remuneration, but is coming under increasing pressure. Technical independence is being challenged by the break in the chain of command of the VS, where external influences can impact decision-making and prioritisation, the system of food safety inspection is influenced by commercial interests and most disease control activities are driven by market interests.

Constitutional change has introduced a break in the VS chain of command as it has become the “concurrent” responsibility of both national and provincial political authorities. This break in chain of command is universal except in cases of national emergency, for border inspection and for import permit issuing and requirement. In some provinces the chain of command is further broken between the provincial VS and the district and/or municipality levels exacerbating the problem further. In this so-called “matrix” system, VS are governed alongside all the other agricultural services at local level. This approach has been implemented despite the seemingly well recognised inability of such matrix systems to the efficient delivery of animal health regulatory services in developing countries.

Changes in the DAFF structure have led to a central organisational chart based on administrative expedience rather than on function. For example the public health

directorate covers animal identification, veterinary hygiene and welfare, while border inspection and certification are managed under a separate chief directorate.

The breaks in the chain of command negatively affect the authority and the capability of the VS in all relevant domains. This lowers the level of advancement and/or is described as a weakness in many of the critical competencies of the OIE PVS evaluation. This has also contributed to a loss of rigour in most official animal health programmes that can no longer be implemented in a consistent, compulsory and coordinated manner throughout the country. Experience has shown that even the "emergency" chain of command did not function properly in the management of the last FMD outbreak where FMD control was not always prioritised appropriately at the local level.

External coordination with other public institutions (especially customs, wildlife and security) are considered effective at most levels, but could be improved with MoH on the control of zoonoses, veterinary medicines, residues and food safety.

Physical resources appear satisfactory and well maintained throughout the VS; even though they are not able to provide the breakdown and distribution of their physical and financial resources at all levels. This level of detail was only able to be provided for human resources. Some provinces have access to advanced equipment; other provinces have some difficulties in maintaining their offices, laboratories and vehicles.

Financial resources appear to be adequate and are provided regularly throughout the VS. As most programmes are not compulsory or implemented nationally, there is an over-reliance on voluntary, cost recovered activity which effectively limits the apparent need for financial resources coming from the public sector's budget.

Data management is generally effective and widely utilised. However the break in the chain of command limits data collation, analysis and reporting at central level. Relevant data is not being used to develop comparative efficacy, efficiency and cost benefit analyses for animal health programmes. This hampers the capability of the VS to advocate for the development and funding of new or updated programmes. Importantly, although raw data are available in many AHT sub-offices, no data are collated to provide the information on non-commercial farmers and animals - this restricts effective planning of national programmes. Emerging and communal farmers or livestock owners are still not recognised individually and are not integrated into national programmes of the VS.

- **Technical authority and capability**

The VS have access to a comprehensive range of veterinary laboratory diagnostic through suitable national laboratories, supported by private laboratories that have been "approved" by DAFF. The OVI and some private laboratories have official quality assurance accreditation and the provincial laboratories are progressively developing quality assurance programmes. Quality assurance is being applied in all laboratories. In 2014, DAFF is seeking to withdraw its current laboratory QA support as provincial and private laboratories attain QA accreditation and become more self-sufficient in their capacity to maintain it.

Risk analysis is regularly used for imports. There is no dedicated unit of staff for the adoption of a full range of risk assessments. The current loose definitions of animal production systems (commercial, emerging, communal and subsistence) are based on their historical and socio-economic background, rather than detailed and comprehensive analysis to understand the systems in terms of practices, metrics or outcomes. This limits the development of official animal health programmes based on risk analyses to set priorities based on a more complex, multifactorial definition of the different animal production systems.

Border control and quarantine inspection systems are very good; however they are not regularly audited to assess resources and procedures. This function is not under the same directorate than the directorate in charge of import/export certification; and this complicates procedures resulting in less effective data management and information flow between technical and operational staff.

Passive surveillance and early detection are implemented mainly through the field network of public AHT sub-offices and by private veterinarians (without official delegation). The lack of veterinarians in regular contact with farms and animals in the field reduces the credibility and the sensitivity of passive surveillance and early detection. There are no specific or detailed passive surveillance procedures and programmes for any prioritised diseases. The break in the chain of command also hampers the surveillance system as technical staff may be side-tracked to more generic agricultural extension work under the instruction of non-technical leadership.

Active surveillance programmes are in place for a few prioritised diseases and are rigorously designed. The break in the chain of command leads to variation in implementation between provinces.

Although rapid response to outbreaks by the VS has usually been effective, detailed contingency planning needs to be more comprehensive. Outbreak investigation is an important part of the work of state veterinarians. However, there is a lack of comprehensive national programmes for the prevention, control and eradication of endemic diseases. The broken chain of command resulted in delays and inconsistencies in the management of the last FMD and ASF outbreaks. Though the constitution supports a national response in cases of emergency, the chain of command cannot be simply and quickly restored at local level for early detection and rapid response.

National disease prevention, control and eradication programmes are virtually non-existent with the exception of FMD. All other diseases are controlled through a market driven approach whereby farmers may not adopt or may not have access to or may not be willing to spend money on the required services. Many of these activities are qualified as “joint programmes” in the PVS Evaluation cannot aim at eradicating diseases. There have been no efficacy or efficiency analyses, nor are they being developed to truly target national prevention, control or eradication. Examples include current activities in brucellosis, tuberculosis and anthrax control.

Food safety is under the mandate of the VS for accreditation of all slaughter facilities and for slaughter inspection; in addition the VS provide accreditation and inspection to facilities processing animal products for export. Non-export processing facilities are under the mandate of MoH. This process of registration and inspection of slaughter facilities is quite effective as well as the auditing of the internal food safety measures in export animal product processing facilities. A deficiency is that the human health certificates for staff working in food processing are provided by MoH without consideration of any VS specific human health requirements.

Slaughter inspection for the national (domestic) market is not technically independent. Owners of slaughter facilities pay meat inspectors (first slaughter inspection to discard carcasses with potential problems) either directly or through private companies that are governed by the meat industry. They also directly pay private veterinarians, who are not bound by official delegation, to implement further inspection on selected carcasses with potential problems; moreover, this second inspection is done only on request of the meat inspector and is not systematic.

Registration, audit and on-site inspection of animal product processing facilities for the national market are done under the municipal authority of MoH. This creates a different standard for international and domestic consumers. From the field interviews and evidence collected, this audit and inspection process appears to be of lower

quality compared to the VS one. Inspections are done by Environmental Health Officers without apparent effective supervision by professionals and with risks of a lack of technical independence from commercial interests.

Registration of veterinary medicines is well managed and protects the country from importing poor quality veterinary medicines and biologicals, but regulations do not allow comprehensive control over drug distribution and usage. This leads to increasing problems of resistance to antibiotics, anthelminthics and acaricids sold over-the-counter, and should raise stronger concerns about the effects on animal health and production as well as on public health (residues, antimicrobial resistance). Deficiencies were mentioned during interviews relating to inappropriate use and efficacy of vaccines (including cold chain) which are also sold over-the-counter. There is insufficient external coordination with the MoH on more tightly regulated scheduled medicines.

Residue testing control programmes are only enforced for the purposes of exports, which leads to a different standard where national consumers are not as well protected. There are efforts underway to develop a more comprehensive national residue testing programme.

Feed safety could not be assessed in detail during the mission, but appears to be secured only for export purposes.

Animal identification and traceability of animal products are supported by general legislation, but are not widely implemented. Individual identification is implemented only for ostriches, horses in the free zone, buffaloes and stud animals, and on a market or export driven basis for animal products. There is no comprehensive registration of livestock owners or farms. This deficiency limits disease control efforts, especially for FMD, TB and brucellosis where even animals living in the non-free zone and positive animals are not being systematically branded to support animal movement control.

Animal welfare concerns are a high priority for parts of South African society. The current legislation is outdated, not harmonised with OIE standards and there are no dedicated staff addressing animal welfare.

- **Interaction with interested parties**

Communication with interested parties is well supported but does not address small holders and communal farmers with any specifically targeted material.

There is formal structured consultation with stakeholders nationally, but less at provincial and district levels. The need for more consultation has led the interested parties to establish new forums for consultation.

Official representation of the VS in OIE and other international institutions is regular though there is insufficient consultation with the relevant parties.

The lack of official delegation to private veterinarians (except for export slaughterhouses) is a major weakness of the VS. This approach fails to provide a clear chain of command for the VS and does not support the technical independence of the private veterinarians who undertake activities such as meat inspection, TB and brucellosis testing. This also prevents the VS taking advantage of this available workforce, their physical resources and networks to strengthen and develop national control programmes.

The South Africa Veterinary Council registers and regulates all veterinarians and veterinary para-professionals, and requires continuing education to maintain registration and applies penalties if necessary. It does not register the large number of meat inspectors in the country.

Virtually all animal health "scheduled activities" (or "official programmes") implemented by the VS might be considered as joint programmes as they rely on voluntary participation and cost-recovery. However, interested parties are usually neither consulted nor trained to implement them.

- **Access to markets**

Internal and external quality of legislation and regulations is satisfactory, although there are not enough dedicated legal staff to update regulations regularly or to develop a more accessible format. Legislation and regulations are generally well applied and penalties are imposed, with the exception of some programmes which have been implemented without any consideration of the current and real conditions making them now impossible to implement in conformity with regulations. The break in the chain of command makes difficult to implement veterinary legislation consistently throughout the country. Harmonisation with neighbouring countries or international legislation is well implemented.

International certification by the VS is recognised by trading partners. The lack of veterinarians in regular contact with farms and animals will limit the capacity of the VS to certify products or activities.

South Africa has established many sanitary agreements with foreign countries.

South Africa has a long history of transparency with international institutions, including regular notifications to OIE. The notification process should be audited more regularly, as it lacks sensitivity due to the limited contact of veterinarians with farms and animals.

Zoning has previously been successfully implemented for FMD, ASF and AHS, and has been recognised by trading partners. FMD zoning was challenged by the last outbreak and the break in the chain of command is considered one reason for the failure of zoning and the loss of FMD-free zone status. AHS zoning is questioned by some representatives of the horse owners as being overly focused on the export and race industry lobbies.

Compartmentalisation has been successfully implemented for ASF and CSF and has been recognised by some trading partners. Compartments have also been implemented for poultry and avian influenza, and are being further considered for ostriches.

Reminder of Key Recommendations in the OIE PVS evaluation report

- **On Human, physical and financial resources**

The VS should establish clear strategies, policies and supportive measures to develop a more comprehensive network of veterinarians in the field with regular contact with farms and animals. The strategy should consider official delegation for all national animal health programmes as a major tool to develop the network of private veterinarians. It should also consider specific measures for some public veterinarians to provide private services and the distribution and sale of veterinary medicines.

Such policies should also clearly define "public good" activities, that are official programmes established to control zoonotic diseases, epizootic diseases or diseases of major economic importance which need to be tackled in a common and rigorous manner, and "private good" services that benefit individuals or companies. Primary animal health care for the most vulnerable and less structured interest groups should clearly be limited to support specific measures for public good activities (e.g. specific awareness and tools, specific subsidies for testing and control, specific official delegation for regular visits, etc), and not include private goods (such as free clinical services or veterinary medicines). The proposed "compulsory community service"

should support implementation of coherent policies, such as developing the private veterinary network and recruiting more public staff where needed, as a transition measure.

The central level VS requires more staff to undertake their core mission for effective national planning and auditing. Provincial and district levels should monitor their needs for human resources in order to avoid a future “generation gap” and consequential “loss of institutional memory”. A national strategy to recruit and retain graduates in the public VS should include “scarce skills” categorisation to promote career opportunities.

The Onderstepoort Veterinary Faculty should strengthen its investment in SADC veterinary faculties to ensure a high standard of initial training and appropriate number of graduates is provided to meet the needs of regional integration.

The needs for veterinary para-professionals should be re-evaluated taking into account OIE standards and the demands for a modern VS and livestock sector.

Technical independence should be systematically evaluated in all area activities as a fundamental principle of quality of the VS. This includes the important issue of the management of human resources for food safety.

Considering the diverse epidemiological, geographical, political and socio-economical contexts of South Africa, the optimal strategy is to restore the national chain of command for all aspects of the VS – as is the current situation with plant health, the police and military. Dividing responsibilities and functions between national and provincial VS authorities inevitably results in a loss of information, an inability to react promptly and an inconsistency in the implementation of activities; and prevents flexibility in addressing veterinary risks. A direct chain of command needs to define the necessary authority and responsibility at each level of the VS to ensure that efficacy, efficiency and adaptability to evolving and diverse situations are achieved. At central level, reorganisation of the directorates and sub-directorates should be considered to ensure that all the aspects of VS are coordinated under the same authority; this reorganisation must address AH and VPH including zoonoses, residues, veterinary medicines and food safety, border inspection and export certification, identification and traceability and laboratory services.

External coordination with MoH should be improved and harmonised, especially for zoonoses, food safety and veterinary medicines control; ideally such functions should be incorporated fully within the VS mandate.

The VS should have information on the geographical and functional distribution of its physical and financial resources, according to the OIE standards - as is available for its human resources.

The VS should be provided with greater control over the national VS budget to develop national AH programmes and to recover the technical independence for VPH.

Part of the additional financial resources required should be provided by the national Treasury; this is necessary for the recruitment of extra staff at central and provincial levels, and for the development of national VPH programmes (residues testing and usage of veterinary medicines). This may be accomplished in part through “identified” budget in the provinces. Much of the additional budget necessary for AH and VPH programmes should be gathered through industry levies instead of the current “direct payments” by farmers to private entities. Such levies should be established in such a way that all farmers/livestock owners can comply with official programmes.

Data management of resources and operations should be nationally integrated to support the chain of command. The VS should develop comparative, efficacy,

efficiency and cost/benefit analysis for its operations to defend current activities and for expanded operations.

- **On Technical Authority and Capability**

The multiple laboratories in some provinces should be rationalised. All provincial laboratories should receive adequate resources to implement and maintain appropriate processes for quality assurance.

The VS should appoint staff dedicated to risk analysis at central and provincial levels. Developing risk analysis should start with the characterisation of all production systems in the country using a multifactorial approach – by species, breed, number, feeding, land management, in-take and off-take, reproduction, inputs, self-consumption, marketing, earning, social background and context, education, etc.

Border inspection and quarantine should be audited to ensure effectiveness and to increase efficiency, such as in the scale and allocation of resources required.

Passive surveillance and early detection should be improved by creating a network of veterinarians in both the public and private sectors working in the field, under authority of the VS that regularly visit farms and animals.

Animal disease prevention, control and eradication programmes should be prioritised for some diseases (e.g. TB, brucellosis). They should be implemented in a consistent and compulsory manner throughout the country, with specific strategies, detailed procedures and additional financial resources provided where necessary. These programmes should be regularly evaluated for their efficacy, efficiency and cost/benefit.

Technical independence should be re-established for food safety either by appointing staff to the public VS or by developing official delegation to private veterinarians; this should include systematic on-site secondary slaughter inspections by veterinarians, and independent payment procedures through public fees or levies. External coordination and harmonisation of inspection processes should be implemented with MoH for animal products processing and distribution in order to ensure that the same food safety standards applied to exports are available for national consumers.

Regulation of veterinary medicines and biologicals should be revised to ensure prudent usage to limit the development of resistance and potential impacts on public health, in addition to complying with export or domestic market requirements. This may include restricting over-the-counter sales, ensuring regular farm visits by veterinarians to prescribe scheduled veterinary medicines, or even completely banning the use of some substances.

Residue testing and control should be expanded to the domestic market to ensure the same protection for consumers as is provided to importing countries.

Feed safety should be further investigated and an official control programme developed.

Animal identification and traceability should be gradually established in consultation with stakeholders. It should start with the registration of all livestock owners/farms. Systematic identification of all animals in FMD non-free zones or tested positive for TB or brucellosis should be enforced.

Traceability of products should be assigned to VS authority with coordination of activities with MoH.

Animal welfare should be supported with a designated point of contact at national and provincial levels with a primary task being the update of legislation to harmonise with OIE standards.

- **On Interaction with interested parties**

Specific communication tools should be established to target all categories of interested parties, especially non-commercial farmers.

Formal consultation mechanisms with interested parties should be established at national and provincial level along the lines of the Animal Health Forum initiative. Such consultations should increase involvement of all interested parties in providing comments on international regulations when the VS are officially represented.

The development of official delegation to private veterinarians is fundamental to increasing the capacity of the VS and making it more efficient by using the available human and physical resources of the private sector. Detailed procedures, including quality control of activities, should be established for any official delegation. Official delegation could be developed for animal health programmes, slaughter inspection, and export certification. Public funds should be allocated and might be used to subsidise access to remote commercial farms, emerging, communal or subsistence farmers.

The SAVC should register meat inspectors as veterinary para-professionals, and not necessarily register other non-veterinary professionals e.g., non-veterinary scientists at laboratories.

Joint programmes should be developed for important diseases currently not prioritised in mandatory animal health programmes. This should include public awareness and training of farmers, especially non-commercial livestock owners.

- **On Access to markets**

The VS should recruit legal staff to adequately update its legislation and make its regulations easier to understand. Some legislation should be reviewed and harmonised (e.g. animal welfare). Animal health regulations should be progressively modified to develop prioritized animal health programmes based on risk assessments.

International certification and transparency should be improved by increasing the number of field veterinarians; this may allow access to new markets and the development of new sanitary agreements.

Zoning should be re-assessed and audited to sustain efficacy and efficiency. This should allow recognition by trading partners and/or OIE.

Compartmentalisation should be supported, but not at the risk of diverting scarce human resources of the VS from public interests to private interests.

I.2 Methodology

Following the receipt of an official request to the OIE, a PVS Gap Analysis Mission based on the outcomes of the country PVS Evaluation Report was conducted from 18th to 28th June 2014 by a team of independent OIE certified experts: Dr Eric Fermet-Quinet as Team Leader and Dr Emilio León and Dr John Stratton as Technical Experts.

I.2.A Organisation of the mission

The meetings and other activities carried out during the mission are presented in the following table:

Date	Meeting	Participants
17 June	Opening meeting Definition of the national priorities and unit costs Technical meeting on Trade pillar: • Animal identification and traceability.	OIE Delegate DAFF staff OIE team
18 June	Technical meeting on Trade pillar: • Border security inspection; • Animal identification and traceability (continue); • Zoning; • Compartmentalization; • Sanitary agreements.	OIE Delegate DAFF staff OIE team
19 June	Technical meeting on Veterinary Public Health pillar: • Food safety inspection; • Slaughterhouses and processing inspection; • Veterinary products and residues.	OIE Delegate DAFF staff DoH staff NRCS staff OIE team
20 June	Technical meeting on Animal Health Pillar: • Animal health programmes. Technical meeting on laboratories	DAFF staff OIE team
23 June	Technical meeting on Animal Health Pillar: • Field veterinary network. Technical meeting on the overall organisation of the Veterinary Authority: • territorial organisation of central and decentralized Veterinary Services; • resource persons from cross-cutting departments: finance, legislation, resources management.	OIE Delegate DAFF staff AHF OIE team
24 June	Preparation of report	OIE team
25 June	Preparation of report	OIE team
26 June	Presentation of findings and comments of DAFF	All
27 June	Preparation of report	OIE team

I.2.B Estimation of resources needed

Strategically defining activities to accomplish strategies and reach priorities enables the Veterinary Services to undertake a brainstorming exercise to quantify and assess its existing human, physical and financial resources and to identify the cost of the

Veterinary Services' activities to improve compliance over a five year timeframe. The results of this costing should be used by the Veterinary Services to advocate for and demonstrate the resources required for its effective and efficient functioning in line with national priorities.

Veterinary Services need to have sufficient financial resources to carry out tasks and duties under their responsibility and mandate in accordance with international standards. Veterinary Services must be adequately staffed, equipped and resourced in order to adapt and react to changes in the country's national animal health status. The monies allocated for field activities by government staff and officially delegated private veterinarians should enable the implementation of planned activities, but also be flexible to cater for immediate responses, when and if required. The costing of each activity is determined on the basis of the activities identified and the national context including human resources (numbers and balance between public/private components), priorities and trends in animal health, and changes to the national animal health status.

The costing is constructed on the basis of the activities identified by the Veterinary Services to be implemented by the country to achieve the Desired Level of Advancement towards improved compliance over a five year timeframe. For comparative value, this final costing is juxtaposed to current funding allocated to the Veterinary Services, if available and provided to the PVS Gap Analysis Expert Team.

The "Global Analysis of the Cost" (Chapter VI) summarises the different cost lines: on-going investments, salaries, repairs and maintenance, operations, etc. This costing of the Veterinary Services contained in this Report should be used to develop a Veterinary Services' strategic plan. It is also a key instrument for empowering country Veterinary Services to advocate for change (by quantifying and justifying the cost of efficient and effective Veterinary Services) when negotiating with relevant government Ministries and Parliament as well as with existing and potential donors.

The international currency used in this report is the **United States Dollar (USD) and** the national current is **the Rand** with an equivalent of **1 USD = 10 Rand**

In South Africa, the annual renewal amortisation rates are calculated as follows:

- 25 years for construction of building
- 15 years for renovation of building
- 5 years for cars, 4x4 and motorbikes
- 10 years for cold chain
- 5 years for laboratory equipment
- 5 years for all office equipment sets

NOTE 1 – The purchase value of vehicles has been reduced by 30% as in South Africa the VS have a contract system with eligible staff that only covers 70% of the purchase price. Running costs are priced based on amount of kilometres covered.

NOTE 2 – Value of the livestock is estimated US$23.6 billion calculated as follows:
- 8 million low value cattle at 5,000 rand each
- 5 million high value cattle at 30,000 rand each.
-25 million sheep at 1,200 rand each
- 6 million goats at 1,500 rand each,
- 1.6 million pigs at 1,000 rand each,
- 150 million poultry at 35 rand each.

Table 7. Unit cost spreadsheet

Unit costs (estimates)				
1- Currencies				
			Currency	**Conversion rate (exchange rate)**
Currency used for this report (USD or EUR)			USD	Number of Rand per USD
National currency			Rand	10
2- Material investments				
			Supply cost / unit	
			Local currency	**International currency**
Buildings	*Unit of surface (m²) or (ft²)*		m2	
	Maintenance cost per m2		300	30
	Renovation cost per m2		1500	150
	Building cost per m2		6000	600
Transport (purchasing cost)				
	Motorbikes		75 000	7 500
	Cars		150 000	15 000
	4x4 vehicles		200 000	20 000
Equipment set				
	Staff office equipment set (desk, office chair, telephone, computer and standard peripherals)		30 000	3 000
	Other specific office equipment set			
3- Non material expenditure				
Training				
Initial training (per student)				
	Veterinarians (DVM, BVS) total training cost		300 000	30 000
	Veterinary paraprofessionals total training cost			
Specialised training (short courses, certificates, Masters degree, PhD, etc.)				
	Accommodation per month		20 000	2 000
	Training fees per month		20 000	2 000
	Travel per month		10 000	1 000
	Cost of specialised training per month		50 000	5 000
Continuing education (daily cost per person on a basis of a group of 15 people)				
	Per diem 15 participants		22 500	2 250
	Room rental and educational tools per day			
	Daily cost for a national expert consultant		4 500	450
	Daily cost per trainee		1 800	180
National expertise (cost per day)				
	Daily fees		4 500	450
	Per diem			
	Total cost per day and per expert		4 500	450
International expertise (cost per week)				
	Daily fees		7 500	750
	Per Diem		2 500	250
	Average cost of an international flight		10 000	1 000
	Total cost per week		80 000	8 000
4- Salaries (salaries, bonuses and social benefits)				
	Veterinarians		600 000	60 000
	Other university degree		600 000	60 000
	Veterinary para-professionals		250 000	25 000
	Support staff		125 000	12 500
5- Consumable resources				
Travel allowances				
	Per diem for technical staff		1 500	150
	Per diem for drivers		1 500	150
	Per diem for technical staff travelling abroad		6 000	600
	Average cost of an international flight		20 000	2 000
	Travel and per diem for one week abroad		**62 000**	**6 200**
Transport fees				Unit
	Price of fuel (average between petrol, diesel or mixt) per unit		15,0	2 litre
	Average number of km/miles per year			Unit
	Average distance per year by motorbike in km		20 000	km
	Average distance per year by car in km		20 000	km
	Average distance per year by 4x4 in km		30 000	km
		Fuel consumption per 100 km/miles		*Running (fuel + maintenance + insurance = consumption x 2)*
	Km or mileage cost (motorbike)		4	0,12
	Km or mileage cost (car)		8	0,24
	Km or mileage cost (4x4 vehicle)		14	0,42
6- National economic indicators				
GDP				**Sources**
	National GDP		3 789 000 000 000	378 900 000 000 DAFF
	Agriculture GDP		58 000 000 000	5 800 000 000 DAFF
	Livestock GDP		23 854 000 000	2 385 400 000 DAFF
	Total value of National Herd		236 000 000 000	23 600 000 000 Mission calculation
	Value of exported animals and animal products		5 120 456 840	512 045 684 DAFF
	Value of imported animals and animal products		6 551 204 680	655 120 468 DAFF
	Number of VLU		16 500 000	Mission calculation
Country budget				
	National Budget		635 349 000 000	63 534 900 000 DAFF
	Agriculture and Livestock Budget		6 692 000 000	669 200 000 DAFF
	Veterinary Services Current Budget			
	Current budget for salaries of public staff of VSs			
	Current operational budget			
	Current capital investment of VS			
	Current budget of VSs for Delegated Activities			

I.2.C Organisation of the report

Part I of this Report provides background information on the PVS Gap Analysis methodology as well as a brief overview of the national context. It also reports on the national and international objectives identified by the Veterinary Services as priorities. The selected national priorities are divided into the four main categories below and are collated into a table:

- Livestock Development and Trade;
- Veterinary Public Health;
- Animal Health;
- Organisation and Management of Veterinary Services.

The selected national priorities are the foundation of the PVS Gap Analysis mission and constitute the baseline for defining the Veterinary Services' strategies, activities and indicative developed during the mission.

This section also includes a table which summarises the Desired Level of Advancement towards improved compliance with OIE international standards that the Veterinary Services has determined for each of the 41 Critical Competencies addressed during the PVS Gap Analysis Mission. This table compares the Expected Level of Compliance with the OIE Tool determined during the PVS Gap Analysis mission with the results obtained for each Critical Competency during the PVS Evaluation. The relevance of each Critical Competency to each category of the national priorities is also therein highlighted.

Part II of this Report is divided into five sub-chapters. Chapters I to V report on the outcomes of the discussion with the Veterinary Services to improve their compliance for each of the five Pillars of the PVS Gap Analysis through the definition of achievable strategies. These strategies constitute the Veterinary Services' five year plan towards meeting its priorities based on improved compliance with international standards. Each Chapter corresponds to a PVS Gap Analysis Pillar, namely:

- Chapter I - Strengthening competencies for International Trade: covering topics such as quarantine and border security; identification and traceability; international certification; equivalence or other types of sanitary agreements; transparency; zoning; and, compartmentalisation.
- Chapter II - Strengthening competencies for Veterinary Public Health: addressing food safety; veterinary medicines and biologicals; residues; and, animal feed safety
- Chapter III - Strengthening competencies for Animal Health: covering epidemiological surveillance and early detection; emergency response; disease prevention, control and eradication; and, animal welfare.
- Chapter IV - Strengthening competencies for Laboratories: covering topics such as access to veterinary laboratory diagnosis; suitability of the national laboratory infrastructures; and, laboratory quality assurance.
- Chapter V - Strengthening competencies for the Management of Veterinary Services including Regulatory Services: this addresses strategies, activities and resources required for the general organisation of the Veterinary Services as well as cross cutting issues (e.g. communication, legislation, education, etc.).

In addition to clearly describing the strategy adopted for each of the above Pillars, each chapter also describes the human, physical and financial resources required by the Veterinary Services to reach their national priorities over a five year timeframe.

Chapter VI – Global Analysis of the Resources – corresponds to a significant output of the PVS Gap Analysis as it describes and analyses the outcomes of the costing

exercise implemented with the Veterinary Services to improve their compliance with international standards over a five-year timeframe. In additional to a global overview of the costing required by the Veterinary Services, detailed information is provided for: human resources, operational funding, and emergency funding. Using the data provided by the country additional layers of analysis are provided, namely: (i) in relation to the national economy and the current budget of the Veterinary Services; and, (ii) distribution of the costs for each of the five PVS Gap Analysis Pillars.

II National priorities and expected levels of advancement

II.1 National priorities

Following the 2012 OIE PVS evaluation mission, the report was distributed to provincial offices and industry stakeholders. In the week prior to the PVS Gap Analysis mission, DAFF invited both provincial directors and industry representatives to discuss preparations for the mission. The main outcome achieved from the two days meeting was gaining agreement on the VS national priorities. These were reviewed and amended during the mission as described below.

Table 8. Table for listing Veterinary Services' technical priorities

Category of priorities	National priorities	Explanatory comments *and reference documents*
Policy on **livestock development (LD)** and trade	LD1: Achieve food security in South Africa by increasing national production LD2: Increase exports of products of animal origin LD3: Reduce poverty and improve nutrition in rural areas through animal production	National Development Plan (2012 – Presidency) Bio-economy Strategy (2013 – Dept of Science and Technology) National Policy on Food and Nutrition Security (2013 – Dept of Social Development and DAFF) Integrated Growth and Development Plan for Agriculture (2012 - DAFF) Agriculture Policy Action Plan (2014 DAFF) Livestock Development Strategy (2007 – DAFF)
Technical priorities in **Veterinary Public Health (VPH)**	VPH1: Provide a similar level of food safety to national consumers as to importing country consumers VPH2: Ensure control of the distribution and use of veterinary medicines to ensure prudent and effective use.	Food Safety and Food control in South Africa specifically referencing meat labelling (June 2013 – DAFF, Department of Health and Department of Trade and Industry) Final Proposal for a Meat Inspection Service in South Africa (2013) Draft Veterinary Public Health Strategy (2014)
Technical priorities in **Animal Health (AH)**	AH1: Expand the mandate and capacity of the VS in Animal Welfare AH2: Maintain and improve the current animal health status for all relevant diseases AH3: Establish and implement new national disease control plans (Tb, brucellosis, rabies, etc.)	See Policy action plan and other documents under LD section. Draft Animal Welfare Strategy document
Policy on organisational structure and management of the **Veterinary Services (VS)**	VS1:Restore national chain of command VS2: Ensure technical independence VS3: Ensure access to both regulatory and clinical veterinary services for all production systems in the whole territory.	National Policy on Food and Nutrition Security (2013 – Dept of Social Development and DAFF) refers to a central animal product food safety agency Primary Animal Health Care draft strategy

II.2 Level of advancement

Table 9. Levels of advancement

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

THE PVS GAP ANALYSIS

I Strengthening competencies for international trade

The purpose of this section is to provide a detailed explanation of the activities identified for implementation by the Veterinary Services in order to reach the priorities established in the field of international trade development. In line with the OIE Terrestrial Animal Health Code, international trade means importation, exportation and transit of commodities. More specifically, it will make reference to and summarise the main activities presented in the Critical Competency Cards II-4, II-12.A & B, IV-4, IV-5, IV-6, IV-7 and IV-8.

I.1 Strategy and activities

Although South Africa is a net importer, it is also historically recognised as a strong exporter of animals and products of animal origin (see I.1.A country details). Internal trade plays also an important role in the economy. During the last decade, trade has been hampered by epizootic outbreaks, which have resulted in huge economic losses (e.g. economic losses due to the last FMD outbreak have been estimated at 4 billion Rand per year).

The national priorities in livestock development policies, as defined in several official documents (see II.1), include both the need to promote exports and to increase and safeguard domestic trade and marketing.

The strategy of the VS is thus to secure international and national trade, by preventing introduction of diseases in the country through relevant border and quarantine security, by securing exports through a relevant process of international certification that meets both international standards and importing country requirements, and by safeguarding internal trade.

Border security and quarantine needs to be maintained at its current level, but will benefit from an internal quality assurance system to ensure that it is responding the evolving risks and those resources are being allocated efficiently.

International certification, being the ultimate product of the overall quality of any VS, will greatly benefit from the increased number of veterinarians involved in the field of AH and VPH official activities (see II and III). This will also have positive secondary effects on both the credibility of notification (CC.IV.6) and on the development of sanitary agreements (CC. IV.5). The process will be submitted to internal auditing system.

Zoning and compartmentalisation will continue to represent two main tools for securing international trade and national movement control for the next five years. However, they should not be seen as ultimate goals, but able to evolve as means to implement more efficient measures able to cover all the territory or production systems, to adapt to a changing epidemiological context and the further development of individual animal identification systems.

The main change over the next five years is likely to be in the area of individual animal identification. As the first priority there is an urgent need to impose coherence in all private initiatives relating to animal identification. The VS should be legally responsible to authorise them in order to ensure at least their compatibility per animal species, their relevance for possible VS needs (e.g. outbreak tracing, animal health records) and their unification within a single system per animal species if ever needed for the future.

Secondly, the VS should gain policy clarity on whether they intend to impose compulsory individual permanent identification of cattle by ear-tags with barcodes or not. Such a policy should be understood as a costly investment that could only be cost effective in the long term. To be useful, such a system should be unique and take into account not only the needs of

the VS, but also the needs of all stakeholders to improve their security and management. On the one hand although individual cattle permanent identification could probably be imposed, cost-recovered and limited to the sector referred to as the commercial sector, it would clearly reinforce the segregation of other animal production systems present in the country. On the other hand, this same identification system would probably not be accepted in the other production systems if not implemented free of charge or linked with an immediate and tangible benefit. The overall cost of the system should be cost recovered through payment of fees, in order to be sustainable on the long run. The major costs arise from database maintenance which is an enormous on-going task. Such efforts should be carefully analysed, planned and developed.

Finally, the VS should also legally control and accredit expanding private initiatives on traceability of products of animal origin for the purposes of marketing and international trade. Such initiatives should be welcomed, but they should be compatible with and accessible to the VS needs and requirements in term of food safety and animal health. Different systems should be also compatible (able to be collated) for each animal species, and linked to relevant future national animal identification systems, through VS accreditation and control.

I.2 Human resources

Estimates are made on the basis of 220 working days per year and 8 hours per day.

Border security and quarantine requires around 20 veterinarians, 90 veterinary para-professionals and 10 support staff. However, it is likely that the implementation of a quality assurance system will lead to the rationalisation of the BIP network; some posts being considered as having a veterinary inspection needs below a defined threshold or for which part of the inspection could be delegated to other partners (customs for instance).

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-4.	**Quarantine and border security**					**19,0**				**86,0**		**7,0**
	Land Border posts											
Namibia	*Vioolsdrift (2000)*	1	365	24,0					1	4,98	0	1,00
"	*Nakop (4500)*	1	365	24,0					1	4,98		
Botswana	*Ramatlabama (1000)*	1	365	16,0					1	3,32		
"	*Skilpadshek (1000)*	1	365	18,0					1	3,73		
"	*Kopfontein (200)*	1	365	18,0					1	3,73		
"	*Groblersbridge (300)*	1	365	16,0					1	3,32		
"	*Pontdrift (60)*	1	365	8,0					1	1,66		
Zimbabwe	*Beitbridge (625)*	1	365	24,0					1	4,98		
Mozambique	*Lebombo (75)*	1	365	18,0					1	3,73	0	0,93
Swaziland	*Mananga (5)*	1	365	13,0					1	2,70		
"	*Jeppesreef (10)*	1	365	9,0					1	1,87		
"	*Oshoek (200)*	1	365	17,0					1	3,53		
"	*Mahamba (2)*	1	365	10,0					1	2,07		
"	*Golela (60)*	1	365	16,0					1	3,32		
Mozambique	*Kosibay (0)*											
Lesotho	*Maserubridge (550)*	1	365	16,0					1	3,32		
	Airports											
	OR TAMBO (2100)	1	365	18,0					1	3,73	1	3,06
	Lanseria (0)											
	Capetown (700)	1	365	16,0					1	3,32	0	1,00
	King Shaka International Airport (0)	1	365	16,0	1	3,32			1	3,32		
	Seaports											
	Capetown (640)	1	250	8,0	1	1,14			1	1,14		
	City deep	1	250	8,0	1	1,14			1	1,14	1	1,00
	Durban	1	250	8,0	1	1,14			1	1,14		
	Port Elizabeth	1	250	8,0	2	2,27			1	1,14		
	Quarantine Stations											
	Kempton Park (2000)	1	365	24,0	1	4,98			2	9,95		
	Cape Town	1	365	24,0	1	4,98			2	9,95		

The simulation undertaken for individual identification of cattle would require around 150 veterinary para-professionals (based on 25% animal identified every year, and 5 minutes per animal including travel, ear-tagging and documentation) and 700 support staff for data entry (estimated at 3 data entries of one minute each per animal and per year) and delivery of certificates and movement permits (estimated 4 million animals and 10 minutes per animal per year).

From an operational point of view that would mean that veterinary para-professionals in charge of identification could be located in the current "State Veterinary Offices" if they are full time employed. Alternatively 300 veterinary para-professionals could be distributed in many more locations (e.g. municipalities), and thus be much more accessible, if they were employed part- time for another activity in the public sector or by private veterinarians.

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-12.A	**Animal identification and movement control**									**142,0**		**710,2**
	Internal check points											
	not applied											
	Animal identification											
	ear tags	3000000	1	0,08					1	142,05		
	Data management for animal ID											
	data entry and updating	13000000	3	0,02							1	369,32
	mouvement permit and certificates	4000000	1	0,15							1	340,91

In addition, the zoning already currently employs around 300 support staff for fence maintenance.

Data managers at national and provincial levels are budgeted in chapter V (see CCI.11).

I.3 Physical resources

Border security and quarantine would require around 30 office equipment sets (one per terrestrial border post and 2 for main airports, seaports and quarantines) and maintenance of 1000 m² of buildings (20 m² in terrestrial border posts and 40 m² in main airports, seaports or quarantines).

Individual identification of cattle would require 14 000 m² of office buildings (350 offices of 40 m², with at least one in each municipality to be accessible to farmers) equipped with 700 office equipment sets for support staff. In addition each of the 150 veterinary paraprofessionals would need a 4x4 vehicle and specific equipment for ear-tagging and reading ear-tags.

Zoning requires fence maintenance at borders and Kruger Park (1,25 million USD per year from current data), and to rebuild the fence in Kwa-Zulu Natal (estimated 700 000 USD and amortised on 2 years).

I.4 Financial resources

The total budget for trade related activities is estimated to be around 34 million USD, out of which 24 million USD for the implementation of cattle permanent individual identification.

In addition to human and physical resources, the budget includes the cost of 3 million ear-tags per year (estimated on the basis of 13 million cattle, with 50 % female and 50% birth rate).

The budget also includes 2 days of continuing education on data entry per support staff.

Exceptional investment to establish the overall database and the development of software for cattle identification should be estimated on the basis of an international bid. 450 000 USD have been earmarked for such an expertise.

In order to operate the individual cattle identification system, this represents at the very least an equivalent of 2 USD per head and per year, that should be cost recovered from cattle producers or processors.

Table 10. 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 ()		14500				
Maintenance cost per (m2)		14500	30	1	435 000	
Renovation cost per (m2)			150	15		
Building cost per (m2)			600	25		
Transport (Purchasing cost)						
Motorbikes			7 500	5		
Cars			15 000	5		
4x4 vehicles		150	20 000	5	600 000	
*Other specific vehicle for Trade**						
*Other specific vehicle for Trade**						
Staff office equipment set		730	3 000	5	438 000	
Other specific office equipment set						
Other specific equipment						
*Other specific equipment for trade**					1 265 000	
*Other specific equipment for trade**					350 000	
Sub-total Material investments					**3 088 000**	
Non material investments						
Training						
Specialised training (person-months/5 years)		-	5 000			
Continuing education (person-days/year)		1 400,0	180		252 000	
National expertise (days/5 years)		1 000,0	450			450 000
International expertise (weeks/5 years)		-	8 000			
Special funds (/ 5 years) for …						
Sub-total non material expenditure					**252 000**	**450 000**
Salaries						
Veterinarians		20,0	60 000		1 200 000	
Other university degree		10,0	60 000		600 000	
Veterinary para-professionals		240,0	25 000		6 000 000	
Support staff		1 010,0	12 500		12 625 000	
Sub-total Salaries					**20 425 000**	
Consumable resources						
Administration			20%		4 085 000	
Travel allowances						
staff within the country (person-days) / year		-	150			
rivers within the country (person-days) / year		-	150			
staff abroad (person-weeks) / year		-	6 200			
Transport costs						
Km or miles Motorbikes / year		-	0,12			
Km or miles cars / year		-	0,24			
Km or miles 4x4 vehicle / year		4 500 000	0,42		1 890 000	
*Other transport fees**						
*Other transport fees**						
Specific costs						
Targeted specific communication						
Consultation (number of 1 day meetings)						
Kits / reagents / vaccines						
*Other costs for trade**					4 500 000	
*Other costs for trade**						
Sub-total Consumable resources					**10 475 000**	
Delegated activities						
Sub-total Delegated activities						
Total in	***USD***				***34 240 000***	***450 000***
Total in	***Rand***				***342 400 000***	***4 500 000***

II Strengthening competencies for veterinary public health

The purpose of this section is to provide a detailed explanation of the activities identified for implementation by the Veterinary Services in order to reach the priorities established in the field of veterinary public health, addressing food safety, veterinary medicines and biologicals (veterinary products) and residue testing. More specifically, it will make reference to and summarise the main activities presented in the Critical Competency Cards II-8.A, B& C, II-9, II-10 and II-11.

II.1 Strategy and activities

The driving outcome for the strategy of the VS regarding VPH is to ensure a similar level of food safety to all national consumers as to international consumers.

Currently VPH authority is fragmented horizontally between DAFF and DoH. Moreover both authorities suffer the same vertical fragmentation of their chain of command between national, provincial, district and even municipal levels. In addition, the processing of animal products is under the responsibility of the VS when they are exported, and under the responsibility of the DoH when they are sold on national market. Finally, aquatic animal inspection (not formally taken into consideration in this report calculations) falls under the authority of the Department of Trade and Industry and is implemented by the Division of Food and Associated Industries of the National Regulator of Compulsory Specifications.

Recent scandals about food safety in South Africa have paved a way to unify the system by creating a single National Food Agency that should (i) incorporate all relevant directorates of the three departments (DoH, DAFF, DTI), (ii) restore the chain of command from central level to field level, (iii) ensure the technical independence of relevant inspection and control.

In order to make such an agency functional, clear and simple delineation of authority should be established both for categories of products and steps of the production chain. The below proposed delineation is based on the current availability of competent professionals, on the most common functional systems and on specific efforts for the future. With these factors in mind the following strategy has been designed during the mission:

- DAFF directorates relevant to the veterinary domain should be in charge of all aspects relating to the safety of products of terrestrial animal origin up to the end of processing (including non-export currently under DoH and canned meat currently under DTI). This includes import control, export certification and control of inputs of animal health and production (feed and veterinary medicines).
- DAFF directorates relevant to the plant domain should be in charge of all aspects related to the safety of plant products up to the end of processing, as they are currently, including import control, export certification and inputs (fertilizers, pesticides, etc), recognising that plant health is currently the only chief directorate with a national chain of command.
- DoH should be in charge of all food distribution sectors in the national market by establishing relevant categories and inspection procedures such as for: commercial restaurants, social dining halls (schools, hospitals, enterprises, military, administrations…), supermarkets, butcheries, markets places, etc.
- DTI should be in charge of inspection of aquatic animals and food of aquatic animal origin all along the production chain up to the end of processing and also for the distribution sector (as identification of aquatic animals and products of aquatic animal origin requires specialised competencies).

In addition to this overall restructuring of VPH mandates and organisations, the strategy will focus on developing adequate legislation to control distribution and use of veterinary medicines in order to comply with international concern on prudent use, to limit risks of drug resistance, residues in produced food and detrimental effects on the environment. This could

include increased numbers of veterinary drugs on prescription lists, relevant procedures to allow farmers to use and register use of veterinary medicines, sales only in veterinary practice or effective presence of veterinarians in cooperatives selling veterinary medicines.

Finally, veterinarians in charge of inspection of facilities will implement national residue control plans on milk and honey as priorities (estimated 1 500 samples and 16 000 tests). Laboratory testing of residues is delegated to accredited private laboratories.

Inspection of feed related facilities will also be developed (no data available).

II.2 Human resources

Human resources for accreditation and inspection of facilities are estimated on the basis of a certain number of visits per year and a number of hours of work per site (including travel, visit and report), depending on categories of establishments.

This would represent around 20 public sector specialized veterinarians (5 for slaughter facilities, 10 for processing facilities and 5 for veterinary medicines and feed facilities) and 10 veterinary para-professionals (5 for slaughter facilities and 5 for processing facilities) that will be adequately distributed amongst provinces as relevant.

Required human resources for inspection of the distribution sector could not be adequately planned, as DoH has currently no data available defining the relevant categories of facilities.

Required human resources for inspection of aquatic animals and food of aquatic animal origin is estimated at around 30 specialised university professionals by DTI. However, they have not been budgeted here as part of the VS staff, although they should be incorporated in the future National Food Authority if it is created.

Regarding slaughter inspection, taking into account deficiencies identified during the OIE PVS Evaluation, a “meat inspection working group” was established, including relevant stakeholders, and concluded (report dated 26 March 2013) that there was a need to restore the presence of public veterinary staff for ante and post mortem inspection at the 700 slaughter sites. A key point for the quality of the VS is to ensure a high level of competence in food inspection. The overreliance on veterinary para-professionals (e.g. meat inspectors) without effective supervision of veterinarians was identified as a non-compliance during the PVS Evaluation. Although technical independence was recognised as a core value of a meat inspection system, the last report of the “meat inspection working group” (26 March 2013) failed to include this point and maintained a system with “veterinarians on-call”, who are not present on site. During the mission, it was agreed that veterinarians should be on-site at all slaughter points. The simulation undertaken in the following table shows that this would require around 350 FTE (full time equivalent) veterinarians and 500 FTE veterinary para-professionals. Based on the number of slaughter places, that would require around 750 veterinarians. This level of deployment of veterinarians in slaughter sites is not possible over the next five years. The strategy will be thus the following:

- assign one public veterinarian full time to all high through put red meat and poultry slaughterhouses (irrespective of the fact that the necessary working time would need more than one veterinarian per site). This would represent 180 public veterinarians.
- assign one private veterinarian part time under official delegation to all rural red meat and poultry, game, rabbit and crocodile slaughterhouses. This would represent 12 FTE and involve around 190 private veterinarians for very limited part time official delegated activity.
- maintain the relevant number of public meat inspectors (veterinary para-professionals) in all high and low throughput red meat and poultry slaughterhouses, with only supervision of “veterinarians on-call” in low throughput slaughterhouses during the next five years, seen as a transition period to get more veterinarians involved part-time on site in the future (as public veterinarians or as private veterinarians under official delegation depending on local context). This would

represent around 600 meat inspectors and an estimated 10 FTE of “veterinarians on call” under official delegation or part time activity of public veterinarians working in State offices (estimated by working group).

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**					**4,3**				**4,3**		
	Registration in Management Tool											
	red meat HTTP (>20/day))	129	2	16,0	1	2,35			1	2,35		
	red meat LTP (3-20/day))	179	1	4,0	1	0,41			1	0,41		
	red meat rural (<2/day)	117	0,30	2,0	1	0,04			1	0,04		
	poultry HTTP (>2000/day))	38	2	16,0	1	0,69			1	0,69		
	poultry LTP (50-2000/day)	160	1	8,0	1	0,73			1	0,73		
	poultry rural (<50)	17	0,30	2,0	1	0,01			1	0,01		
	Ostrich	9	1	4,0	1	0,02			1	0,02		
	Game	36	1	4,0	1	0,08			1	0,08		
	Crocodile	4	1	4,0	1	0,01			1	0,01		
	Rabbit	4	1	4,0	1	0,01			1	0,01		

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.B	**Ante & post mortem inspection**					**356,2**				**490,2**		
	1 slauther unit = 1 bovine = 6 shoats = 4 pigs											
ECP	*red meat HTTP (>20/day))*	12	250	10,0	1	17,05			2	34,09		
	red meat LTP (3-20/day))	19	150	4,0	1	6,48						
	red meat rural (<2/day)	35	50	2,0	1	1,99						
	poultry HTTP (>2000/day))	2	250	10,0	1	2,84			2	5,68		
	poultry LTP (50-2000/day)	20	100	4,0	1	4,55			1	4,55		
	poultry rural (<50)	6	50	1,0	1	0,17						
	Ostrich	1	220	8,0	1	1,00						
	Game	8	30	8,0	1	1,09						
	Crocodile		15	8,0	1							
	Rabbit		15	8,0	1							
FS	*red meat HTTP (>20/day))*	25	250	10,0	1	35,51			2	71,02		
	red meat LTP (3-20/day))	25	150	4,0	1	8,52						
	red meat rural (<2/day)	17	50	2,0	1	0,97						
	poultry HTTP (>2000/day))	4	250	10,0	1	5,68			2	11,36		
	poultry LTP (50-2000/day)	33	100	4,0	1	7,50			1	7,50		
	poultry rural (<50)		50	1,0	1							
	Ostrich		220	8,0	1							
	Game		30	8,0	1							
	Crocodile		15	8,0	1							
	Rabbit		15	8,0	1							
GP	*red meat HTTP (>20/day))*	10	250	10,0	1	14,20			2	28,41		
	red meat LTP (3-20/day))	15	150	4,0	1	5,11						
	red meat rural (<2/day)		50	2,0	1							
	poultry HTTP (>2000/day))	7	250	10,0	1	9,94			2	19,89		
	poultry LTP (50-2000/day)	23	100	4,0	1	5,23			1	5,23		
	poultry rural (<50)	1	50	1,0	1	0,03						
	Ostrich	1	220	8,0	1	1,00						
	Game	4	30	8,0	1	0,55						
	Crocodile	2	15	8,0	1	0,14						
	Rabbit	4	15	8,0	1	0,27						
KZN	*red meat HTTP (>20/day))*	17	250	10,0	1	24,15			2	48,30		
	red meat LTP (3-20/day))	16	150	4,0	1	5,45						
	red meat rural (<2/day)	7	50	2,0	1	0,40						
	poultry HTTP (>2000/day))	7	250	10,0	1	9,94			2	19,89		
	poultry LTP (50-2000/day)	24	100	4,0	1	5,45			1	5,45		
	poultry rural (<50)	5	50	1,0	1	0,14						
	Ostrich		220	8,0	1							
	Game	9	30	8,0	1	1,23						
	Crocodile		15	8,0	1							
	Rabbit		15	8,0	1							
LIM	*red meat HTTP (>20/day))*	10	250	10,0	1	14,20			2	28,41		
	red meat LTP (3-20/day))	13	150	4,0	1	4,43						
	red meat rural (<2/day)	39	50	2,0	1	2,22						
	poultry HTTP (>2000/day))	3	250	10,0	1	4,26			2	8,52		
	poultry LTP (50-2000/day)	6	100	4,0	1	1,36			1	1,36		
	poultry rural (<50)		50	1,0	1							
	Ostrich		220	8,0	1							
	Game	3	30	8,0	1	0,41						
	Crocodile	2	15	8,0	1	0,14						
	Rabbit		15	8,0	1							
MPU	*red meat HTTP (>20/day))*	12	250	10,0	1	17,05			2	34,09		
	red meat LTP (3-20/day))	19	150	4,0	1	6,48						
	red meat rural (<2/day)		50	2,0	1							
	poultry HTTP (>2000/day))	5	250	10,0	1	7,10			2	14,20		
	poultry LTP (50-2000/day)	13	100	4,0	1	2,95			1	2,95		
	poultry rural (<50)	2	50	1,0	1	0,06						
	Ostrich	1	220	8,0	1	1,00						
	Game	2	30	8,0	1	0,27						
	Crocodile		15	8,0	1							
	Rabbit		15	8,0	1							
NWP	*red meat HTTP (>20/day))*	10	250	10,0	1	14,20			2	28,41		
	red meat LTP (3-20/day))	12	150	4,0	1	4,09						
	red meat rural (<2/day)	10	50	2,0	1	0,57						
	poultry HTTP (>2000/day))	2	250	10,0	1	2,84			2	5,68		
	poultry LTP (50-2000/day)	20	100	4,0	1	4,55			1	4,55		
	poultry rural (<50)		50	1,0	1							
	Ostrich		220	8,0	1							
	Game	3	30	8,0	1	0,41						
	Crocodile		15	8,0	1							
	Rabbit		15	8,0	1							
NCP	*red meat HTTP (>20/day))*	13	250	10,0	1	18,47			2	36,93		
	red meat LTP (3-20/day))	24	150	4,0	1	8,18						
	red meat rural (<2/day)	8	50	2,0	1	0,45						
	poultry HTTP (>2000/day))		250	10,0	1				2			
	poultry LTP (50-2000/day)	12	100	4,0	1	2,73			1	2,73		
	poultry rural (<50)		50	1,0	1							
	Ostrich	2	220	8,0	1	2,00						
	Game	2	30	8,0	1	0,27						
	Crocodile		15	8,0	1							
	Rabbit		15	8,0	1							
WCP	*red meat HTTP (>20/day))*	20	250	10,0	1	28,41			2	56,82		
	red meat LTP (3-20/day))	36	150	4,0	1	12,27						
	red meat rural (<2/day)	1	50	2,0	1	0,06						
	poultry HTTP (>2000/day))	8	250	10,0	1	11,36						
	poultry LTP (50-2000/day)	9	100	4,0	1	2,05			2	4,09		
	poultry rural (<50)	3	50	1,0	1	0,09			1	0,09		
	Ostrich	4	220	8,0	1	4,00						
	Game	5	30	8,0	1	0,68						
	Crocodile		15	8,0	1							
	Rabbit		15	8,0	1							

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.C	**Inspection of products of animal origin**					**7,9**		**30,0**		**5,0**		
	Meat processing											
ECP	*Export*	1	4	8,0	1	0,02			1	0,02		
FS	"	2	4	8,0	1	0,04			1	0,04		
GP	"	51	4	8,0	1	0,93			1	0,93		
KZN	"	7	4	8,0	1	0,13			1	0,13		
LIM	"	2	4	8,0	1	0,04			1	0,04		
MPU	"	1	4	8,0	1	0,02			1	0,02		
NWP	"											
NCP	"											
WCP	"	35	4	8,0	1	0,64			1	0,64		
ECP	*Non- export*	348	1	4,0	1	0,79			1	0,79		
FS	"	155	1	4,0	1	0,35			1	0,35		
GP	"	257	1	4,0	1	0,58			1	0,58		
KZN	"	99	1	4,0	1	0,23			1	0,23		
LIM	"	18	1	4,0	1	0,04			1	0,04		
MPU	"	60	1	4,0	1	0,14			1	0,14		
NWP	"	53	1	4,0	1	0,12			1	0,12		
NCP	"	73	1	4,0	1	0,17			1	0,17		
WCP	"	357	1	4,0	1	0,81			1	0,81		
	Dairy processing											
ECP	*Export*	5	4	8,0	1	0,09						
FS	"	6	4	8,0	1	0,11						
GP	"	16	4	8,0	1	0,29						
KZN	"	8	4	8,0	1	0,15						
LIM	"	1	4	8,0	1	0,02						
MPU	"	2	4	8,0	1	0,04						
NWP	"	6	4	8,0	1	0,11						
NCP	"											
WCP	"	31	4	8,0	1	0,56						
	Non- export (estimated distribution)	320	2	4,0	1	1,45						
	Eggs processing											
	Export (for total country)	7	3	8,0	1	0,10						
	Non- export											
	Fishery or aquatic sector											
	estimated by DTI	1	220	8,0			30	30,00				
	Other food processing											
	Distribution sector											
	Commercial restaurants											
	Social restaurants											
	Supermarkets											
	Butcheries											
	Other food shops											
II-9	**Veterinary medicines & biologicals**					**2,4**		**0,5**				
	Registration of veterinary medicines											
	Manufacturers of scheduled drugs	30	2	16,0	1	0,55	1	0,55				
	Importers and wholesalers of scheduled	20	1	4,0	1	0,05						
	Manufacturers of non scheduled drugs											
	Importers and wholesalers of non											
	retail in private rural practice	350	1	2,0	1	0,40						
	retail in private urban practice											
	retail in farm cooperatives	800	1	3,0	1	1,36						
II-10	**Residue testing**											
	implemented by inspection staff											
II-11	**Animal feed safety**					**2,0**						
	Registration											
	Producers inspection	1	220	8,0	1	1,00						
	Importer, Wholesaler inspection	1	220	8,0	1	1,00						
	Retail sector and on farm-inspection											

II.3 Physical resources

Veterinarians in charge of inspections of facilities will require city cars (20).

All veterinarians and veterinary para-professionals will need office equipment sets (210).

As staff are located either in provincial VS offices or in slaughterhouse buildings, office maintenance is not budgeted here.

II.4 Financial resources

Apart from human and physical resources costs, the functioning costs are estimated to be:

- 2 000 000 USD for residues testing (estimated on the current data for export and 20 000 tests for national milk and honey programmes).
- 2 640 000 USD for official delegation of inspection in rural and minor species slaughtering and supervision of veterinary para-professionals meat inspection (on the basis of 1 FTE private = 120 000 USD / year including transportation)

The total cost for VPH related activities is estimated around 38 million USD, out of which almost 90 % is for slaughter inspection.

This could be cost recovered from the food industry through levies applied per head of animals slaughtered (in order to mutualise the cost of inspection in small facilities, where it is likely to be free as fee collection would probably be more costly than what could be recouped in fees to be collected). Fees for registration and inspection of food processing facilities should also be applied on a similar basis (per unit of product)

Table 11. 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)		-	30	1		
Renovation cost per (m2)		-	150	15		
Building cost per (m2)		-	600	25		
Transport (Purchasing cost)						
Motorbikes		-	7 500	5		
Cars		20	15 000	5	60 000	
4x4 vehicles		-	20 000	5		
*Other specific vehicle for Vet. Public Health**						
*Other specific vehicle for Vet. Public Health**						
Staff office equipment set		210	3 000	5	126 000	
Other specific office equipment set		-				
Other specific equipment						
*Other equipment for Vet. Public Health**						
*Other equipment for Vet. Public Health**						
Sub-total Material investments					**186 000**	
Non material investments						
Training						
Specialised training (person-months/5 years)		-	5 000			
Continuing education (person-days/year)		-	180			
National expertise (days/5 years)		-	450			
International expertise (weeks/5 years)		-	8 000			
Special funds (/ 5 years) for …						
Sub-total non material expenditure						
Salaries						
Veterinarians		200,0	60 000		12 000 000	
Other university degree		-	60 000			
Veterinary para-professionals		610,0	25 000		15 250 000	
Support staff		-	12 500			
Sub-total Salaries					**27 250 000**	
Consumable resources						
Administration			20%		5 450 000	
Travel allowances						
staff within the country (person-days) / year		-	150			
rivers within the country (person-days) / year		-	150			
staff abroad (person-weeks) / year		-	6 200			
Transport costs						
Km or miles Motorbikes / year			0,12			
Km or miles cars / year		400 000	0,24		96 000	
Km or miles 4x4 vehicle / year			0,42			
*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					**5 546 000**	
Delegated activities						
					2 440 000	
					2 200 000	
Sub-total Delegated activities					**4 640 000**	
Total in	***USD***				***37 622 000***	
Total in	***Rand***				***376 220 000***	

III Strengthening competencies for animal health

The purpose of this section is to provide a detailed explanation of the activities identified for implementation by the Veterinary Services in order to reach the priorities established in the field of animal health. More specifically, it will make reference to and summarise the main activities presented in the Critical Competency Cards II-5.A&B, II-6; II-7 and II-13.

III.1 Strategy and activities

Currently very few animal health programmes are implemented nationally and compulsorily. Although of a general public good nature, being of overall national animal health or public health concern, most of them are market driven with only those stakeholders that want to and can afford to pay being involved. .

Moreover, the current veterinarians' national field network does not allow all animal production systems access to private veterinary services, including clinical services. In fact veterinarians are in regular contact with animals and farmers only in the sector referred to as the commercial sector which represents less than 5% of farmers (households rearing animals) and only 60% of cattle and 80 % of small ruminants.

The regular contact between veterinarians and most farmers and animals is key for the sensitivity and specificity of early detection and passive surveillance, and is seen as a major factor in the development of small farmers by providing them a flexible, innovative, and adapted range of services.

During the next five years, current Animal Health programmes will be maintained and a national control programme for brucellosis and tuberculosis will be implemented.

Current AH programmes will be continued:

- active surveillance of pig diseases to maintain free status (6 diseases, 12 000 samples taken every 3 years),
- active surveillance of avian influenza and Newcastle disease (estimated 50 000 samples per year),
- vaccination against FMD three times a year with double dose for cattle in the vaccinated protection zone (estimated around 160 000)
- vaccination against anthrax in specific areas (estimated 20 000 animals)
- passive surveillance of FMD in each dip-tank (estimated 3 000) twice a month.

As there is currently no national operational plan targeting brucellosis and tuberculosis (prevalence is not known), the simulated strategy is that, during the next five years:

- all dairy cattle of the sector referred to as the commercial sector (estimated 700 000 cattle) should be tested twice a year
- all heifers (young female cattle) older than 4 months of age of the sector referred to as the non-commercial sector should be vaccinated against brucellosis once during the annual veterinary visit and for life (estimated less than 1 million on the basis of 40% of the 13 million cattle, 50% female, 35 % birth rate).

At the same time the Primary Animal Health Care (PAHC) and Compulsory Service programmes will be implemented in order to reach all production systems and to connect them with veterinarians. This programme will focus on three areas (i) ensuring that all animals are covered by national official AH programmes, (ii) ensuring that all farmers have regular contact with veterinarians in order to benefit from relevant and adapted private services (iii) ensuring that the farmers referred to as the non-commercial farmers receive adequate extension or public awareness about AH and VPH. PAHC is costed in the fifth pillar (CCC III-6).

The national policy should be to deliver more AH activities through private sector veterinarians, by involving them in national official programmes through official delegation.

This would allow the VS to increase their workforce and the size and density of the veterinary network.

In addition, the VS will implement a national policy for animal welfare with relevant resources in order to avoid or better prepare for legal trials that have costed DAFF several millions of USD in recent years.

III.2 Human resources

The following table estimates the workload of AH official activities, in order to see if they are compatible with available human resources in the future.

Estimate of the number of working days necessary to implement official activities, based on the number of targeted animals						
	Animal species	**Number of animal concerned or targeted** b	**Average number of animals treated per day** c	Number of veterinarians involved in this activity on site d	Number of veterinary-paraprofessional involved in this activity on site e	**Total number of working days for veterinarians** f=(b/c*d)
Brucellosis and Tb testing twice a year (500 animals/day/visit)	dairy cattle	700 000	125	1		5 600
						5 600

Estimate of number of working days necessary for implementation of official activities, based on time spent per site (visits of farms or villages for AH or AH related extension, or of sites for part time veterinary public health inspection,…)						
Official activity	**Type of site to visit**	**Number of visits per year** h	**Number of working days per visit** i	Number of veterinarians involved in this activity on site j	Number of veterinary-paraprofessional involved in this activity on site k	**Total number of working days for veterinarians** total=(h*i*j)
visits active surveillance, animal welfare, feed and vet medicine extension in intensive production sector	commercial farms	45000	0,25	1,00		11 250
Ante & Post mortem inspection at rural and minor species	FTE	1	220,00	12,00		2 640
Supervision of meat inspectors in low throughput slaughterhouse	FTE	1	222,00	10,00		2 220
						16 110

	Veterinarians
Total number of working days necessary to implement official activities per veterinarian	21 710
Number of working days available per year to implement official delegated activities per private veterinarian	50
Estimated number of private veterinarians involved	434

Taking into account the strategy and the different activities, the following organisation was agreed during the mission.

(i) Some activities could be **immediately and fully delegated to private veterinarians**:

- active surveillance of pig diseases, avian influenza and Newcastle disease as private veterinarians are already working in the sector referred to as the commercial sector and as access to other animal productions systems would not represent a challenge taking into account the small number of samples required.
- a yearly visit in each of the farms referred to as the commercial farms either for the purpose of data collection or extension regarding the new regulations on animal welfare, veterinary medicines, feed quality, and movement control. On the basis of 45 000 farms and 4 farms visited per working day, this represents around 50 FTE required.
- tuberculosis and brucellosis testing in the sector referred to as the commercial sector. This is estimated at 25 FTE required.
- as previously mentioned in chapter II, slaughter inspection of rural, game, crocodile and rabbit slaughterhouses is estimated at 12 FTE)
- as already currently done, private veterinarians “on-call” will also be in charge of supervision of meat inspectors, but only in low throughput slaughterhouses (see

strategy in chapter II). According to the meat inspection work group this represent around 10 FTE.

These activities would thus represent around 100 FTE and could involve, for instance, around 450 private veterinarians on the basis of 50 days of work per year dedicated to officially delegated activities. In the current context, this is quite possible and acceptable target for the next five years.

(ii) FMD vaccination and dip-tank passive surveillance will remain implemented by public **veterinary para-professionals (AHT)** as this represents an important workload and a very limited and repetitive activity where implementation by veterinarians does not represent much of an added value. This represents 170 FTE of public veterinary para-professionals, based on half a day of work per dip-tank every two weeks in the 3 000 dip-tanks.

(iii) development of primary animal health care (PAHC) within the small farmers' communities (estimated 1,2 million) would need at least one formal contact per year. This would represent the opportunity to implement different activities, such as vaccination against brucellosis, cattle identification, extension, etc… and also provide the opportunity to progressively develop relevant private veterinary activities enabling farmers to develop their production. Based on regrouping around 10 small farmers per day of work, this would represent an equivalent 570 FTE. Taking into account the current distribution of private veterinarians (both from geographical and field of activity point of views), the current veterinarians are obviously not able to implement this activity in the short term. If private veterinarians would work around 25% of their time doing officially delegated activities, this would thus represent 2500 veterinarians, so all existing veterinarians in South Africa.

During the next five years, depending on their types, these activities will still need to be implemented by private veterinarians under official delegation and their veterinary paraprofessionals, or by public veterinarians and veterinary-paraprofessionals. The demarcation between private and public sector activities will only be established on the longer term.

The simulation shows that the current 850 rural veterinarians set in the current 350 rural veterinary practices could implement all PAHC activities by working 42 days and employing one veterinary-paraprofessional (or a young veterinarian) half-time.

Estimate of number of working days necessary for implementation of primary health care in small holders farms
(visits of farmers per groups or in villages for AH or VPH related extension, implementation of national official programs or access to private services)

Official activity	Type of site to visit	Number of visits per year	Number of working days per visit	Number of veterinarians involved in this activity on site	Number of veterinary-paraprofessional involved in this activity on site	Total number of working days for veterinarians	Total number of working days for veterinary para-professionals
		h	i	j	k	total=[h*i]	total = [h*k]
vaccination, extension, sampling in small farmers (10/days)		1200000	0,10	0,30	0,70	36 000	84 000
						36 000	84 000

	Veterinarians	Para-professionels
Total number of working days necessary to implement official activities per category of staff	36 000	84 000
Number of working days available per year to implement official activities per category of staff	42	100
Minimum number of veterinarians and veterinary para-professionals in the field	857	840

They could also be implemented by public veterinarians and veterinary para-professionals in some remote areas, but on the condition that, in the absence of private veterinarians, they could be also authorised (under derogation as a temporary measure and with agreement of the Veterinary Statutory Body) to establish cost recovery of all relevant veterinary medicines and clinical care for all private good activities, in order to avoid unfair competition and market distortion.

It should be clear that maintaining such a policy with payment of official activity to private veterinarians over the next two decade is the only solution to build a dense and professional

private veterinary network accessible to all animal production systems in the long term. Such policies have been applied successfully in most developed countries. A network of 2 000 veterinarians spending 33% of their working time for officially delegated activities, established through 500 veterinary practices would be quite accessible (average national maximal distance of 30 km between farmer and veterinarians, ranging from 20 to 75 km depending on the province) and sustainable only if official activities are financed by the VS.

Administrative divisions	Number of animals						Number of equivalent VLU
	Bovines	Small Ruminants	Pigs	Equines (horses and donkeys) and Camelids	Poultry	Other	
Value of VLU	1,00	0,10	0,30	0,30	0,01		a = (Value of VLU * Number of animals)
Eastern Cape	2 579 706	10 767 171	96 232		8 000 000		3 765 293
Free State	1 641 931	7 854 747	125 545		11 000 000		2 575 069
Gauteng	466 212	366 285	180 830		15 000 000		707 090
KwaZulu-Natal	1 583 397	933 392	155 588		20 000 000		1 923 413
Limpopo	1 197 226	726 345	368 280		4 500 000		1 425 345
Mpumalanga	1 532 627	1 070 157	128 247		23 000 000		1 908 117
North West	1 715 954	1 029 086	318 843		30 500 000		2 219 516
Northern Cape	393 639	5 945 623	27 331		200 000		998 401
Western Cape	420 486	2 663 588	172 803		28 000 000		1 018 686
Total	**11 531 178**	**31 356 394**	**1 573 699**		**140 200 000**		**16 540 927**

Administrative divisions	Area in km² or mile²	Number of VLU	Number of households	Number of districts	Number of VLU / km² or mile²	Number of Field Veterinary Stations (FVS)*	Maximal distance of Field Veterinary Stations	Number of households per FVS	Number of FVS* per district	Number of VLU per FVS
	n	o = (a)	p	q	r = (o/n)	s = (o/m)	t = √((0,5*n)/s)	w = (p/u)	x = (s/q)	y = (o/u)
Eastern Cape	168 966	3 765 293	330 354	8	22,28	114	27	2902	14	33 082
Free State	129 825	2 575 069	45 207	5	19,83	78	29	581	16	33 082
Gauteng	18 178	707 090	62 047	5	38,90	21	21	2903	4	33 082
KwaZulu-Natal	94 361	1 923 413	268 657	11	20,38	58	28	4621	5	33 082
Limpopo	115 635	1 425 345	172 684	5	12,33	43	37	4008	9	33 082
Mpumalanga	63 738	1 908 117	71 882	3	29,94	58	24	1246	19	33 082
North West	104 882	2 219 516	88 634	4	21,16	67	28	1321	17	33 082
Northern Cape	352 717	998 401	19 537	5	2,83	30	76	647	6	33 082
Western Cape	129 462	1 018 686	28 334	6	7,87	31	46	920	5	33 082
Total	**1 177 765**	**16 540 927**	**1 087 337**	**52**	**14,0**	**500**	**34**	**2175**	**10**	**33 082**

For the purposes of the simulation:

- 170 FTE veterinary para-professionals are required to undertake FMD vaccination and passive surveillance in the 3000 dip-tanks
- 570 FTE veterinary para-professionals are required to undertake a yearly visit to rural households, and 30 FTE veterinarians are required to supervise them in the remaining public veterinary clinics (during transition period given the private veterinarian network will not be fully operational in all the national territory initially)
- 50 FTE veterinarians are required to undertake active surveillance of pigs, poultry and ostrich diseases and 25 FTE veterinarians are required to undertake tuberculosis and brucellosis testing in dairy cattle, based on 120 000 USD per FTE (including transportation)
- 12 veterinarians (1 in each province and 3 at central level), one university degree scientist and one secretary are required to organise the coordination of animal welfare policy and implementation.

III.3 Physical resources

Buildings for 30 state veterinary clinics need to be maintained during the transition period (estimated 150 m² each).

Each public field staff needs transportation:779 4x4 vehicles and 1 city car.

Each veterinarian, university degree and secretary needs an office equipment set: 44.

Clinical equipment is budgeted for each public veterinary clinic (estimated 2000 USD each).

III.4 Financial resources

FMD vaccine is budgeted at 3 million USD on the basis of 200 000 animals vaccinated three times a year with a double dose of vaccine at 2.50 USD per dose.

Tuberculin is budget at 1 050 000 USD on the basis of 700 000 dairy cattle tested twice a year with a unit cost of 0.75 USD / dose.

Official delegation is budgeted at 9 million USD on the basis of twice the level of a veterinary salary in order to take into account for part time activity and transport fees, so 120 000 USD per FTE and 75 FTE.

The total estimated cost for animal health related activities is approximately 51,5 million USD.

Vaccination against brucellosis of heifers of small holders is not budgeted here, as part of PCAH is budgeted in CC III-6 (joint programs) of chapter V.

Table 12. 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 ()		7 500				
Maintenance cost per (m2)		7 500	30	1	225 000	
Renovation cost per (m2)		-	150	15		
Building cost per (m2)		-	600	25		
Transport (Purchasing cost)						
Motorbikes		-	7 500	5		
Cars		1	15 000	5	3 000	
4x4 vehicles		779	20 000	5	3 116 000	
*Other specific vehicles for Animal Health**						
*Other specific vehicles for Animal Health**						
Staff office equipment set		44	3 000	5	26 400	
Other specific office equipment set		-				
Other specific equipment						
*Other equipment for Animal Health**					12 000	
*Other equipment for Animal Health**						
Sub-total Material investments					**3 382 400**	
Non material investments						
Training						
Specialised training (person-months/5 years)		-	5 000			
Continuing education (person-days/year)		-	180			
National expertise (days/5 years)		-	450			
International expertise (weeks/5 years)		-	8 000			
Special funds (/ 5 years) for …						
Sub-total non material expenditure						
Salaries						
Veterinarians		42,0	60 000		2 520 000	
Other university degree		1,0	60 000		60 000	
Veterinary para-professionals		740,0	25 000		18 500 000	
Support staff		1,0	12 500		12 500	
Sub-total Salaries					**21 092 500**	
Consumable resources						
Administration			20%		4 218 500	
Travel allowances						
staff within the country (person-days) / year		-	150			
rivers within the country (person-days) / year		-	150			
staff abroad (person-weeks) / year		-	6 200			
Transport costs						
Km or miles Motorbikes / year			0,12			
Km or miles cars / year		20 000	0,24		4 800	
Km or miles 4x4 vehicle / year		23 370 000	0,42		9 815 400	
*Other transport fees**						
*Other transport fees**						
Specific costs						
Targeted specific communication		-				
Consultation (number of 1 day meetings)		-				
Kits / reagents / vaccines						
*Other costs for Animal Health**					3 000 000	
*Other costs for Animal Health**					1 050 000	
Sub-total Consumable resources					**18 088 700**	
Delegated activities						
					9 000 000	
Sub-total Delegated activities					**9 000 000**	
Total in	***USD***				***51 563 600***	
Total in	***Rand***				***515 636 000***	

IV Strengthening competencies for veterinary laboratory diagnostics

The purpose of this section is to provide a detailed explanation of the activities identified for implementation by the Veterinary Services in order to reach the priorities established in the trade, veterinary public health and animal health chapters. More specifically, it will make reference to and summarise the main activities presented in the Critical Competency Cards II-1.A& B and II-2.

IV.1 Strategy and activities

The strategy of the VS is to maintain the current level of quality of the veterinary laboratory sector that is considered fit for purpose.

Questions were raised about the need to ensure that the OVI reference laboratory should be incorporated to the VS structure instead of remaining independent or within a separate management structure. This wish was expressed as being due to the fact that OVI appears to give priority to research rather than to diagnostic results of laboratory analysis as part of its service to the official VS. Such a situation could also be resolved by more detailed and prescriptive procedures and contracts between VS and OVI that clearly stipulate requirements and make payments performance based. Alternatively the VS should be ready to consider options in paying the price of analysis on an international basis in a competitive market instead of providing its subsidised tariff to OVI.

IV.2 Human resources

The laboratory sector needs to incorporate more specialised staff and expressed limitations from a lack of such competencies in the national market and further hindered by the completely rigid and strict regulations from the VSB about employment (obliging veterinary laboratories to only employ veterinary laboratory technicians trained in a specific institution and registered with the VSB and preventing employment of any other technicians or professionals despite their relevant skills and qualifications). These constraints should be lifted. The number of staff mentioned in the table is the current number provided by DAFF.

The need for continuing education is usually evaluated on the basis of 5% of the salaries.

IV.3 Physical resources

Physical resources (building areas and value of equipment) mentioned in the table are those given by the VS. The necessity to ensure regular renewal, maintenance and calibration is taken into account on the basis of 30% of the value of equipment (20% for renewal, 10% for calibration and metrology).

IV.4 Financial resources

Financial resources necessary for reagents could be calculated on the bases of average international costs of reagents (including sampling kits) for tests planned by the VS for official controls in AH and VPH, so around 100 000 ELISA at 6 USD for active surveillance, 1,4 million BBAT (at 1 USD), 30 000 FC (4,5 USD) for brucellosis, and 5 000 general microbiology (at 30 USD) for food safety. The total represents 2 285 000 USD. This is coherent with current level of expenditure of DAFF to implement analysis in the reference laboratory (OVI) which is around 1 million USD per year, currently in absence of a national control plan for brucellosis. For the purposes of our simulation, an amount of 2,5 million USD has been budgeted for reagents. Other reagents are not included and evaluated as those laboratory analyses are paid by farmers and companies as part of a cost recovery system.

Total cost for laboratories amounts to approximately 15 million USD.

Table 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 ()		25 000				
Maintenance cost per (m2)		25 000	30	1	750 000	
Renovation cost per (m2)		-	150	15		
Building cost per (m2)		-	600	25		
Transport (Purchasing cost)						
Motorbikes		-	7 500	5		
Cars		-	15 000	5		
4x4 vehicles		18	20 000	5	72 000	
*Other specific vehicles for Vet. Laboratories**						
*Other specific vehicles for Vet. Laboratories**						
Staff office equipment set		-	3 000	5	60 000	
Other specific office equipment set		-				
Other specific equipment						
*Other equipment for Vet. Laboratories**					2 500 000	
*Other equipment for Vet. Laboratories**						
Sub-total Material investments					**3 382 000**	
Non material investments						
Training						
Specialised training (person-months/5 years)		-	5 000			
Continuing education (person-days/year)		1 560,0	180		280 800	
National expertise (days/5 years)		-	450			
International expertise (weeks/5 years)		-	8 000			
Special funds (/ 5 years) for …						
Sub-total non material expenditure					**280 800**	
Salaries						
Veterinarians		33,0	60 000		1 980 000	
Other university degree		16,0	60 000		960 000	
Veterinary para-professionals		68,0	25 000		1 700 000	
Support staff		128,0	12 500		1 600 000	
Sub-total Salaries					**6 240 000**	
Consumable resources						
Administration			20%		1 248 000	
Travel allowances						
staff within the country (person-days) / year		-	150			
rivers within the country (person-days) / year		-	150			
staff abroad (person-weeks) / year		-	6 200			
Transport costs						
Km or miles Motorbikes / year			0,12			
Km or miles cars / year			0,24			
Km or miles 4x4 vehicle / year		540 000	0,42		226 800	
*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**					2 750 000	
*Other costs for Vet. Laboratories**					1 000 000	
Sub-total Consumable resources					**5 224 800**	
Delegated activities						
Sub-total Delegated activities						
Total in	***USD***				***15 127 600***	
Total in	***Rand***				***151 276 000***	

V Strengthening competencies for general management and regulatory services

This section makes reference 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

V.1.A Technical independence

Technical independence of the VS will be improved through a range of reforms that include restoring the chain of command for most activities, involving veterinarians directly on site for slaughter inspection, allocating public staff and removing all direct payment by owners of slaughter entities, and promoting presence of private veterinarians in the field in direct contact with farmers and animals.

V.1.B Coordination

Restoring the chain of command for most activities is the main challenge of the next five years. In absence of solution to restore the chain of command, there is no hope that any progress could be made, in the context of a country that has to face difficult, complex and evolving epidemiological situation.

For purpose of simulation of resources, the report is written on the assumption that a National Food Authority will be created, and unify all relevant general directorates of the different departments (DAFF, DoH and DTI) at central level under a relevant chain of command through 9 provincial head offices and then to relevant sub-level of coordination and inspection that might be 52 districts veterinary public offices for VS/DAFF, municipal offices for DoH and specific location for aquatic sector.

Under such a chain of command, the central level is responsible for legislation and strategies, the provincial level for operational planning and control of execution, and the district level for coordination of implementation of controls by public staff or of official activities delegated by private veterinarians. The current 100 state veterinary offices will be progressively classified between 52 “district veterinary offices” in charge of coordination that will be maintained on the longer term, and 48 “field veterinary offices” that will remain only if necessary during a transition period where the private veterinarian network will not be stable or dispersed enough to be geographically and functionally accessible to all stakeholders.

The chain of command would benefit greatly from the use of official delegation to private veterinarians.

V.1.C Veterinary practice organisation and policy

Private veterinarians are well established and recognised in South Africa. However, there is a need to incorporate them within the VS structure through official delegation to ensure not only skilled delivery of animal health programmes, but also a professional, sensitive and efficient level of early warning and passive surveillance. Private veterinarians are also more efficient than employing civil servants if they are used for part time official activities, such as inspection in rural and minor species slaughter facilities. During a transition period, where private veterinarians are not accessible, “public field veterinary offices” should be allowed to deliver private services such as animal care and sales of veterinary medicines under derogation from regulations, with cost recovery established in agreement with the VSB. Private veterinarians should also be much more systematically in control of veterinary medicines distribution and sales, for purpose of economical sustainability and control of usage by farmers (to avoid resistance, residues and environmental issues). This could include increased numbers of veterinary drugs on prescription lists, relevant

procedures to allow farmers to use and register use of veterinary medicines, sales only in veterinary practice or effective presence of veterinarians in cooperatives selling veterinary medicines.

V.2 Cross-cutting competencies of the Veterinary Services

V.2.A Qualification of VS staff

The veterinary faculty may increase its off-take of students per year, in order to respond to the future needs of veterinarians.

In addition, it will develop specialised training that the VS needs such as public sector administration (if needed in collaboration with OIE recognised reference centres) or other specialities. Specialised training on risk analysis is budgeted for 12 person-months.

Continuing education is supposed, under current policy, to represent at least 1% of salaries. The needs of the VS have been calculated on the basis of 5 days per technical staff (veterinarians and veterinary paraprofessionals), 2 days per support staff involved in animal identification, and 5% of salaries of laboratory staff. This would represent around 2,35 million USD / year. Taking into account the required amount, it should be evaluated against its effectiveness and impact on staff performance and activities.

V.2.B Management of operation and resources

There is a need for an overall reorganisation of national AH and VPH data management.

At all levels, the VS have all relevant data available. Currently they are just not collated, analysed and used in the proper way. Databases are not compatible between provinces. The break of chain of command between all levels does not allow transmission of data and information. More than this, some procedures are established to forbid direct exchanges of information between veterinary professionals (this even did not allow some staff to participate in the current PVS Gap Analysis meetings as they did not get the information sent by DAFF) from different levels and impose the pre-approval of hierarchical authorities.

Data management software and updating of databases will represent an important investment.

V.2.C Communication

This should be tailored in order that messages reach the farmers referred to as the non-commercial farmers. For this, specific tools should be developed. As such competences are provided at the higher level than the VS (meaning agriculture department at national or provincial levels), it could not be budgeted.

V.2.D Consultation with interested parties and joint programmes

Consultation with stakeholders should be organised to reach also the farmers referred to as the non-commercial farmers. Organisation of farmers groups may be a task developed during extension activities, especially in regards of AH activities for the purpose of organising campaigns and surveillance. Joint programmes could be developed on that basis for specific disease control activities.

The overall Primary Animal Health Care (PAHC) programme should be considered as a joint programme aiming at (i) incorporating small holders into national official programmes, (ii) establishing contact between farmers and private veterinarians (iii) providing these farmers with relevant extension and public awareness materials.

V.2.E Official representation

The VS of South Africa will continue to ensure a leading role in terms of official representation in most relevant forums and institutions, including OIE, Codex, SPS, AU-IBAR, and SADC.

V.2.F Legislation

Taking into account the complexity of the legislative system, the VS needs to improve on implementation of legislation by developing more detailed procedures and gaining a greater understanding and appreciation of the legal system in order to avoid being sued or being unable to enforce compliance from stakeholders.

This will represent an important investment of human resources specialised in legal advice.

V.3 Human resources

The overall management structure of the VS could be estimated at 120 veterinarians (animal welfare staff has been budget in CC II-13), 65 other university degree holders (among them 25 data managers, 12 legal advisers and 1 communication specialist) and 90 support staff.

		Human resources			
Critical Competencies related to Management and Regulatory Services	No of units of each level	Veterinarians	Other university degree	Veterinary para-professionals	Support staff
Total Management and regulatory services		**120**	**65**	**0**	**90**
Central level		**32**	**20**	**0**	**11**
General Directorate		2	20	0	6
Director		1			1
Legal office			3		1
Communication office			1		1
Finance and administration			9		2
Continuing edication management		1	2		1
Data management			5		
Animal health		14	0	0	2
Director		1			2
Epidemiology & Risk Analysis		5			
Disease control		5			
Animal welfare (see CC II.13)					
Field activities, including delegated activities		3			
Veterinary Public Health		8	0	0	2
Director		1			2
Slaughterhouses inspection coordination		2			
Processing inspection coordination		2			
Veterinary medicine, residues and feed		3			
Trade, Border control and Traceability		8	0	0	1
Director		1			1
Coordination of BIP		2			
Coordination of animal identification and tracebility		2			
Traceabiity of products		1			
International trade, agreements, zoning, etc		2			
Field level of coordination		**88**	**45**	**0**	**79**
1st level of field coordination	9	36	45	0	27
Provincial Director		1			1
Animal Health & Animal Welfare		1			
Veterinary Public Health		1			
Identification and treasability		1	1		1
Animal welfare (see CC II.13)					
Legal advise			1		
Data management			1		
Finance and administration			2		1
2nd level of field coordination	52	52	0	0	52
District Director		1			1

V.4 Physical resources

Buildings are estimated on the basis of 1500 m2 for central level, 300 m2 for provincial level and 150 for the district level of coordination. The total amounts 12 000 m2.

Other physical resources are estimated respectively 20 cars, 60 vehicles 4x4 and 275 office equipment sets.

Overall central data management equipment is estimated at 1 000 000 USD (over 5 years).

V.5 Financial resources

In addition to human and physical resources and transportation, specific costs have been included in the annual budget:

- 5 days continuing education per technical staff of the VS (estimated 1 800 000 USD / year)
- Primary Animal Health Care national coordinated programme has a budget of 15 million USD per year. This programme is of higher importance as a mechanism to include all farmers in national VS policy. It is budgeted in official delegation, to allow flexibility of use of private veterinarians or of young veterinarians working as part of the National Compulsory Civil Service. In this budget, 500 000 USD has been earmarked for brucellosis vaccines of cattle in small holder areas (estimated 40 % of 13 000 000 cattle, 50% female, 50% birth rate, 50% young female, representing 1 000 000 young female to vaccinate per year, at 0,5 USD per dose of vaccine).
- 50 person-weeks per year have been budgeted for travel abroad (official representation)

Some other costs have been budgeted in the exceptional budget for non-material investments over the next five years:

- 12 person-months training on risk analysis (estimated 60 000 USD)
- national expertise to establish relevant data management systems (estimated 900 000 USD).
- national and international expertise to establish relevant classifications of animal production systems of South Africa (estimated around 440 000 USD)

The total budget of management of VS represent around 33 500 000 USD per year, with an additional exceptional budget of 1 400 000 USD over the next five years.

Table 14. 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 ()		12 000				
Maintenance cost per (m2)		12 000	30	1	360 000	
Renovation cost per (m2)		-	150	15		
Building cost per (m2)		-	600	25		
Transport (Purchasing cost)						
Motorbikes		-	7 500	5		
Cars		20	15 000	5	60 000	
4x4 vehicles		60	20 000	5	240 000	
*Other specific vehicles for management of VS**						
*Other specific vehicles for management of VS**						
Staff office equipment set		275	3 000	5	165 000	
Other specific office equipment set		-				
Other specific equipment						
*Other equipment for management of VS**					200 000	
*Other equipment for management of VS**						
Sub-total Material investments					**1 025 000**	
Non material investments						
Training						
Initial training						
Specialised training (person-months/5 years)		12,0	5 000			60 000
Continuing education (person-days/year)		10 000,0	180		1 800 000	
National expertise (days/5 years)		2 440,0	450			1 098 000
International expertise (weeks/5 years)		30,0	8 000			240 000
Special funds (/ 5 years) for …						
Sub-total non material expenditure					**1 800 000**	**1 398 000**
Salaries						
Veterinarians	250,0	120,0	60 000		7 200 000	
Other university degree		65,0	60 000		3 900 000	
Veterinary para-professionals	1 500,0	-	25 000			
Support staff		90,0	12 500		1 125 000	
Sub-total Salaries					**12 225 000**	
Consumable resources						
Administration			20%		2 445 000	
Travel allowances						
staff within the country (person-days) / year		-	150			
rivers within the country (person-days) / year		-	150			
staff abroad (person-weeks) / year		50	6 200		310 000	
Transport costs						
Km or miles Motorbikes / year			0,12			
Km or miles cars / year		400 000	0,24		96 000	
Km or miles 4x4 vehicle / year		1 800 000	0,42		756 000	
*Other transport fees**						
*Other transport fees**						
Specific costs						
Targeted specific communication		-				
Consultation (number of 1 day meetings)		-				
Kits / reagents / vaccines		-				
*Other costs for VS management**					500 000	
*Other costs for VS management**						
Sub-total Consumable resources					**4 107 000**	
Delegated activities						
					14 500 000	
Sub-total Delegated activities					**14 500 000**	
Total in	***USD***				***33 657 000***	***1 398 000***
Total in	***Rand***				***336 570 000***	***13 980 000***

VI Resources analysis

The total budget is presented in the table below.

Table 15. Total 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**
Material investments								
Buildings ()	-	59 000						
Maintenance cost per (m2)	-	59 000	30	1	1 770 000		8 850 000	1,0%
Renovation cost per (m2)	-	-	150	15				
Building cost per (m2)	-	-	600	25				
Transport (Purchasing cost)								
Motorbikes	-	-	7 500	5				
Cars	-	41	15 000	5	123 000		615 000	0,1%
4x4 vehicles	-	1 007	20 000	5	4 028 000		20 140 000	2,3%
Other vehicles								
Other vehicles								
Staff office equipment set	-	1 259	3 000	5	815 400		4 077 000	0,5%
Other specific office equipment set	-	-						
Other specific equipment								
Other equipment					3 977 000		19 885 000	2,3%
Other equipment					350 000		1 750 000	0,2%
Sub-total Material investments					**11 063 400**		**55 317 000**	**6,4%**
Non material investments								
Training								
Initial training								
Specialised training (person-months/5 years)	-	12,0	5 000			60 000	60 000	
Continuing education (person-days/year)	-	12 960,0	180		2 332 800		11 664 000	1,4%
National expertise (days/5 years)		3 440,0	450			1 548 000	1 548 000	
International expertise (weeks/5 years)		30,0	8 000			240 000	240 000	
Special funds								
Sub-total non material expenditure					**2 332 800**	**1 848 000**	**13 512 000**	**1,4%**
Salaries								
Veterinarians	250,0	415,0	60 000		24 900 000		124 500 000	14,5%
Other university degree	-	92,0	60 000		5 520 000		27 600 000	3,2%
Veterinary para-professionals	1 500,0	1 658,0	25 000		41 450 000		207 250 000	24,1%
Support staff	-	1 229,0	12 500		15 362 500		76 812 500	8,9%
Sub-total Salaries					**87 232 500**		**436 162 500**	50,7%
Consumable resources								
Administration			20%		17 446 500		87 232 500	10,1%
Travel allowances								
staff within the country (person-days) / year	-	-	150					
rivers within the country (person-days) / year	-	-	150					
staff abroad (person-weeks) / year	-	50	6 200		310 000		1 550 000	0,2%
Transport costs								
Km or miles Motorbikes / year			0,12					
Km or miles cars / year		820 000	0,24		196 800		984 000	0,1%
Km or miles 4x4 vehicle / year		30 210 000	0,42		12 688 200		63 441 000	7,4%
Other transport fees								
Other transport fees								
Specific costs								
Targeted specific communication	-	-						
Consultation (number of 1 day meetings)	-	-						
Kits / reagents / vaccines	-	-						
Other costs					10 750 000		53 750 000	6,2%
Other costs					2 050 000		10 250 000	1,2%
Sub-total Consumable resources					**43 441 500**		**217 207 500**	25,2%
Delegated activities								
Specific delegated activities					25 940 000		129700000	15,1%
Other activities or global estimation					2 200 000		11000000	1,3%
Sub-total Delegated activities					**28 140 000**		**140 700 000**	**16,3%**
Total in	***USD***				***172 210 200***	***1 848 000***	***862 899 000***	***100%***
Total in	***Rand***				***1 722 102 000***	***18 480 000***	***8 628 990 000***	

VI.1 Human resources analysis

The evolution of human resources of the VS should be analysed on the long term to be coherent with the national policy, aiming at providing more contact between farmers, animals and private veterinarians in the field, as well as involving veterinarians directly in slaughter inspection on site and increasing their activities in the domain of VPH.

The increase of public veterinarians (from 250 to 415) is only due to their involvement in slaughter inspection.

The real increase of veterinarians in the VS will come from the private veterinarians used by the VS under official delegation, which is expected to represent at least 100 FTE and involve around 450 veterinarians. In the medium term, this figure could increase quickly depending on the implementation of the Primary Animal Health Care programme in rural areas for small holders. In the long term, it may represent 2000 rural veterinarians, distributed in 500 veterinary practices, and working 33% part time for official delegated activities. These private veterinarians would employ a number of veterinary para-professionals which is not yet evaluated.

The relative stability of the number of veterinary para-professionals should be analysed as a possibility to operate the necessary shift between the expected decrease of their involvement in AH and their increasing involvement in VPH within a smooth social and professional process and context. The slaughter inspection (and on a medium and long term, also the processing food safety inspection) will need the recruitment of around 600 meat inspectors (currently working under private companies) and the implementation of individual cattle identification would represent around 170 jobs. On the other hand the involvement of private veterinarians in official activities will necessary reduce the need for AHTs, although private veterinarians may need to employ some of them in the future.

An important increase of other university degree holders will be necessary to modernise the VS, especially in term of data management, legal advice, communication and continuing education.

The important increase of support staff should be clearly linked with the simulated implementation of individual cattle identification (estimated 700 support staff).

VI.2 Physical resources analysis

The levels of physical resources currently available are reasonable and are likely to remain stable.

Although the number of vehicles may appear large (around 1000), this is the result of the simulation exercise which assumes that most of AH activities will continue to be implemented by public AHT for budgeting purpose. In reality, the development of official delegation to private veterinarians could reduce drastically the need to subsidise vehicles in the long run, although the payment of fees for official delegation will necessarily include transportation costs. The amount paid for vehicles and transportation may go down with the development of official delegation, but will probably remain stable in the long run, and could even increase if more official programmes are implemented.

VI.3 Financial resources analysis

VI.3.A Operational funding

Operational funding represents 90 % of the annual budget.

It should be noted that salaries and transportation represent respectively 50% and 25 % of the annual budget, as the simulation takes into account a smooth shift from AH activities currently implemented in the majority by public AHT to official delegation to private veterinarians.

However, the development of official delegation will need an increase of the currently estimated 15% of the budget (out of which 2/3 are linked to the PAHC programme) that will probably, in the long term, be compensated by an equivalent decrease of global amount of salaries.

It should be understood that shifting from public staff involved in AH activities to delegation of these activities to private veterinarians will not necessarily be accompanied by a budget reduction. The expected result is a stronger, more competent and more dense field veterinary network based on private veterinarians, which will benefit the VS in terms of efficiency.

VI.3.B Emergency funding

There is no earmarked funding for emergencies, as such funds are usually readily available from the national budget in case of generic emergencies. A mechanism also authorises the VS to immediately fund any emergency with its own budget if necessary and under certain conditions and limits.

VI.3.C Capital investment

Capital investment at 10% remains quite reasonable.

One should remind that exceptional investments are considered necessary for half of it because of implementation of individual cattle identification.

VI.4 Profitability and sustainability

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

The table below gives some elements to compare the cost of the VS and some national economical data.

In term of the national economy, the VS cost represents less than 0.1% of the GDP, 3% of agriculture GDP and 7% of livestock GDP, but also 33% of the value of exported animals and animal products. These figures show that it is not appropriate to consider livestock, and moreover livestock exports, as an isolated sector without considering all indirect benefits on environment, employment and added value along the production chain, including services providers and other sectors, from farm to fork.

The estimated unit cost per VLU (VLU=1 cattle=10 small ruminants=3 pigs=100 poultry) is around 10,5 USD per year. This is an average quite acceptable for the level of development of the livestock industry in South Africa. Moreover, most of this amount could be cost recovered through levies in the food industry (slaughterhouses, food processing, etc), with a very limited impact on the consumer.

Comparison with the national budget (0.3%) and the agriculture budget (25%) should be taken carefully into account, as data provided probably do not incorporate within the national budgets the overall local government taxes and other public related taxes.

An important ratio is the estimated VS cost as being 0.7% of the capital value of animals in South Africa. Considered as insurance to safeguard the animal capital of the nation, the VS could advocate being a high value form of insurance to provide.

Importance of the cost in national economy and livestock economy

	Current cost of the VS (ref. currency)	*Annual cost of the PVS Gap analysis (ref. currency)*
Annual amount		172 210 200
Cost of VS / National GDP		0,05%
Cost of VS / Agriculture GDP		3,0%
Cost of VS / Livestock GDP		7,2%
Cost of VS / Total value of national herd		0,7%
Cost of VS / Value of exported animal and animal products		33,6%
Cost of VS / Value of imported animals and animal products		26,3%
Cost of VS / VLU		10,44
Cost of VS / National budget (current)		0,3%
Cost of VS / Agriculture and Livestock budget (current)		25,7%

Livestock GDP / National GDP	0,6%
Livestock GDP / Agriculture GDP	41,1%
Livestock GDP / Total value of national herd	10,1%

VI.4.B Analysis of distribution per pillar

The repartition per pillar does reflect quite naturally the importance of each domain, with the increasing importance of VPH (slaughter inspection), the development of AH activities, and the important specific cost of individual cattle identification in Trade pillar.

ANNUAL COST PER PILLAR						
Resource and cost lines	Trade	Veterinary Public Health	Animal health	Veterinary laboratories	General management	**Total**
Material investments						
Sub-total Material investments	3 088 000	186 000	3 382 400	3 382 000	1 025 000	11 063 400
%	*27,9%*	*1,7%*	*30,6%*	*30,6%*	*9,3%*	*100%*
Non material investments						
Sub-total non material expenditure	252 000	-	-	280 800	1 800 000	2 332 800
%	*10,8%*			*12,0%*	*77,2%*	*100%*
Salaries						
Sub-total Salaries	20 425 000	27 250 000	21 092 500	6 240 000	12 225 000	87 232 500
%	*23,4%*	*31,2%*	*24,2%*	*7,2%*	*14,0%*	*100%*
Consumable resources						
Sub-total Consumable resources	10 475 000	5 546 000	18 088 700	5224800	4 107 000	43 441 500
%	*24,1%*	*12,8%*	*41,6%*	*12,0%*	*9,5%*	*100%*
Delegated activities						
Sub-total Delegated activities	-	4 640 000	9 000 000	-	14 500 000	28 140 000
%		*16,5%*	*32,0%*		*51,5%*	*100%*
Total in USD	**34 240 000**	**37 622 000**	**51 563 600**	**15 127 600**	**33 657 000**	**172 210 200**
%	*19,9%*	*21,8%*	*29,9%*	*8,8%*	*19,5%*	*100%*
Total in Rand	**342 400 000**	**376 220 000**	**515 636 000**	**151 276 000**	**336 570 000**	**1 722 102 000**

CONCLUSION

The VS of South Africa have both the opportunity and the capacity to reorganise in such a way that would be compliant with international standards, meet the main national strategies related to agriculture and rural development and take into account national budget constraints.

From the work done internally, through different working groups and consultations, and from this PVS Gap Analysis report the VS are well placed to design strategic and operational plans.

In particular, several policies would require clarification in order to be sustained in the long term and to be translated into operational plans, including financial aspects:

- establishment of a comprehensive national food authority
- regulations for control of distribution and use of veterinary medicines
- operational planning for cattle individual identification and the movement control system
- operational planning for tuberculosis and brucellosis national control programmes
- operational planning and legislation for official delegation to private veterinarians
- strategic and operational planning for primary animal health care provision, including for official activities
- strategic and operational planning for compulsory civil service for veterinarians, including for official activities
- development of comprehensive data management systems
- establishment of a relevant classification of animal production systems

Taking into account the importance of those changes and their impact in the long term, the VS could probably, in addition to their own analysis, benefit from international expertise, to take appropriate decisions.

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 VS should progressively develop and implement an internal systematic audit and QA system for quarantine and border security activities within the next five years. The ultimate aim may be to target ISO 17020 quality assurance standards, although this is not expected to be achieved within 5 years

4. Activities to implement (chronological)

Specific activities		• Undertake a resource allocation review of border inspection to better ensure that staff numbers and types reflect workloads and technical requirements at the numerous ports of entry (e.g. need for veterinary inspection). Consideration should be given to rationalise the overall network and to position professionals based on the type and quantity of consignments received yearly in each border post. For example, smaller ports of entry (less than 500 consignments per year) could be opened only part-time to minimise DAFF staff needs; in other border posts where only documentary checks are performed, coordination and cooperation with the Customs could be sought and DAFF staff could be removed. • Develop an audit and QA system for veterinary border inspection. This will include review of internal SOPs for all ports of entry and quarantine stations.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Continue to work closely with customs and police at the border as well as neighbouring country authorities to harmonise border inspection procedures.
	IV.1, 2, 3. Legislation	Ensure legislation is prepared and implemented relating to border inspection, including the capacity to impose penalties for illegal activities.
	I.3. Continuing Education	Implement staff training on border inspection quality assurance.
	III.1 Communication	
	I.11. Management of resources and operations	Ensure border inspection data is collated nationally.
	III.3. Official representation	

5. Objectively verifiable indicators

Development and implementation of an internal border inspection QA system, including production of audit reports.
More efficient system of border inspection, incorporating the prudent allocation of DAFF technical staff (veterinarians and veterinary paraprofessionals) to the various ports of entry based on workload.
Penalties are imposed for illegal entry of animals and animal products.

[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 ()	500				
Maintenance cost per (m2)	500	30	1	15 000	
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set	30	3 000	5	18 000	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**33 000**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for study tour					
Sub-total non material expenditure					
Salaries					
Veterinarians	20,0	60 000		1 200 000	
Other university degree		60 000			
Veterinary para-professionals	90,0	25 000		2 250 000	
Support staff	10,0	12 500		125 000	
Sub-total Salaries				**3 575 000**	
Consumable resources					
Administration		20%		715 000	
Travel allowances					
staff within the country (person-days) / year		150			
drivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**715 000**	
Delegated activities					
Sub-total Delegated activities					
Total in	***USD***			***4 323 000***	
Total in	*Rand*			***43 230 000***	

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)

After defining all minimum requirements, the VS will harmonise and accredit all existing eligible animal identification systems within the next 5 years, ensuring coherence, compatibility and further accessibility and relevance to the VS needs.
The VS should also define a strategy, and eventually operational planning, regarding permanent individual cattle identification

4. Activities to implement (chronological)

Specific activities		• Standardise all private sector identification systems (such as those currently used for the purposes of trade, breeding etc.) through developing an accreditation process. Export certification could require use of an "accredited" ID system. ID systems should be accessible and useful to the VS for traceability; and more easily aligned with future longer term planning for a national ID system. • Ensure that data collected at all level are collated to actualise the national livestock census • Develop and implement a national livestock property identification system, starting with cattle owning properties, including smallholders. This is estimated at 1000 person-days national expertise. • Undertake thorough planning, including cost analysis, for national compulsory lifelong individual identification of cattle, especially considering: o relevant legislation and regulations, and their economic and social impact o the complexity and cost of ongoing database management, including recording and data entry for all movements/births/deaths etc o the human resources and the conditions under which animal identification should be implemented (farmers, private veterinarians, government AHTs), o the way the overall system might be financed (cost recovery system) • This system could be piloted initially for cattle residing in the FMD protection zone (approximately 500,000 animals) via identification carried out during dip-tank activity. • The budget proposed includes 3 million ear tags per year for cattle (25%) as running costs
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consultation with commercial cattle farmer groups already implementing identification to ensure that the process to standardise their systems also incorporates their needs. Broader consultation with all stakeholders (farmers, traders, livestock markets, slaughterhouses) on their perspectives on a national compulsory life-long identification system for the longer term.
	IV.1, 2, 3. Legislation	Develop and implement legislation/regulations to standardise existing private individual identification systems and explore requirements for a legislative framework to impose a national standardised compulsory identification system for permanent individual identification of all cattle.
	I.3. Continuing Education	If initiated there will be a need to progressively train staff, farmers or private veterinarians in tagging and data entry for cattle identification.
	III.1 Communication	Develop a stakeholder communications plan relating to both standardised and compulsory cattle identification.

	I.11. Management of resources and operations	Explore the development of a database to record all identified animals, updating their movements, treatments, deaths etc. Ensure compatibility for other aspects such as animal production/management/breeding etc.
	III.3. Official representation	

5. Objectively verifiable indicators

Existing ID systems and functioning
National livestock census, household census, movement control, etc.

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 ()	14 000				
Maintenance cost per (m2)	14 000	30	1	420 000	
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles	150	20 000	5	600 000	
Staff office equipment set	700	3 000	5	420 000	
Other specific office equipment set					
Other specific equipment					
Equip. for ear taging and bar code reading	150	100	1	15 000	
Sub-total Material investments				**1 455 000**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)	1 400,0	180		252 000	
National expertise (days/5 years)	1 000,0	450			450 000
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure				**252 000**	**450 000**
Salaries					
Veterinarians		60 000			
Other university degree	10,0	60 000		600 000	
Veterinary para-professionals	150,0	25 000		3 750 000	
Support staff	700,0	12 500		8 750 000	
Sub-total Salaries				**13 100 000**	
Consumable resources					
Administration		20%		2 620 000	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year	4 500 000	0,42		1 890 000	
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
ear tags	3 000 000	1,50		4 500 000	
Sub-total Consumable resources				**9 010 000**	
Delegated activities					
Sub-total Delegated activities					
Total in	***USD***			***23 817 000***	***450 000***
Total in	*Rand*			***238 170 000***	***4 500 000***

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)

After defining all minimum requirements and harmonisation of systems, the VS will accredit existing eligible private initiatives (e.g. processor/retailer systems) on traceability of animal products, ensuring they comply with international standards, are accessible and useful to the VS and could be linked with individual animal identification systems to target 'farm-to-fork' traceability in the longer term.

4. Activities to implement (chronological)

Specific activities		Ensure that the staff in charge of ID general design and management is also in charge of this activity at DAFF and within each province.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with relevant processors and retailers on standardisation and accreditation processes for existing animal product traceability systems.
	IV.1, 2, 3. Legislation	Develop a legislative framework for accreditation of animal product traceability to ensure accessibility and usefulness to the VS and avoid inconsistent development of multiple traceability systems.
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	Ensure product traceability systems have the capacity to be linked to the development of individual livestock identification systems
	III.3. Official representation	

5. Objectively verifiable indicators

Animal product traceability systems
Legislation and data management

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)

The credibility of the VS export certification system should be sustained and strengthened by progressively developing an internal QA system of export certification, restoring the chain of command (CCI.6A), reviewing central VS structures (CC I.5), developing a field veterinary network in regular contact with animals and farmers (CCII.5A), improving external coordination (CCI.6B), and improving technical independence (CC I.4)in general and in particular in meat inspection (CCII.8).

4. Activities to implement (chronological)

Specific activities		• Develop and implement an internal QA system for the export certification system. • Review the central VS organogram and provincial roles to analyse the internal chain of command relating to export certification. There should be a clear and direct link between the certification process and what is being certified (i.e. national animal health and VPH activity). These activities are currently in different Chief Directorates in the central VS which may negatively influence information flows, increase the number and timing of procedures etc. The involvement of provincial authorities in export certification further complicates the system.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with exporters on the certification QA/audit system
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Train those undertaking QA/audit activities
	III.1 Communication	
	I.11. Management of resources and operations	Maintain records of QA/audit activity
	III.3. Official representation	

5. Objectively verifiable indicators

QA system for export certification.
External audits such as from trading partners

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

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)

Continue to target new export markets and new risk based sanitary agreements, including equivalence, with trading partners, including at bilateral and multilateral (e.g. SADC region) levels.

4. Activities to implement (chronological)

Specific activities		Allow sufficient time (FTE) to relevant DAFF staff to pursue sanitary agreements, including international travel for bilateral and international sanitary trade 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

New and/or evolving sanitary agreements are developed with trading partners.

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)

The transparency will be improved by increasing the level of sensitivity of early detection and therefore reporting by developing the veterinary field network (CC II.5A), by restoring the chain of command (CC I.6.A), and through improved reporting data transfer, collation and management procedures (CC I.11).

4. Activities to implement (chronological)

Specific activities		Continue to transparently report South Africa's sanitary status to OIE and trading partners
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

Notification made

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)

The VS will maintain current VS zoning for 3 diseases; FMD, AHS and ASF and increase its credibility and efficiency

4. Activities to implement (chronological)

Specific activities		• Improve FMD, AHS and ASF zoning via improvements in the chain of command (CCI.6A), passive and active surveillance (CC II.5), disease control including vaccination (CCII.7), quarantine and border security (CC II.4) and livestock identification and movement control (CCII.12A). • Re-erect the Kwa Zulu Natal (KZN) red line fence to improve movement control of FMD vaccinated cattle (total KZN fence = 110 km). • Upgrade (southern area being currently done is 35km) and maintain the Kruger fence, followed by transitional handover of management to National Parks authorities. • Handover maintenance of all international fences to the Department of Public Works. DAFF to ensure specific requirements are met relating to the Mozambique and Zimbabwe fences as these are of animal health concern. • Secure relevant budget to maintain fences relevant to VS (including support staff estimated 300)
Activities linked to cross-cutting competencies	*III.2 Consultation*	Work closely with National Parks and the Department of Public Works relating to fence maintenance arrangements to ensure a smooth transition that takes into account ongoing sanitary risks.
	IV.1, 2, 3. Legislation	Ensure legislation is developed and implemented relating to zoning e.g. penalties can be enforced for illegal movements relating to zoning.
	I.3. Continuing Education	
	III.1 Communication	Increase communications to stakeholders to increase awareness of zoning and related movement control requirements.
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

International recognition in zoning for the 3 diseases.
Fewer incidents and/or faster recovery of lost international zoning status (such as for FMD).

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set		3 000	5		
Other specific office equipment set					
Other specific equipment					
Fencing maintenance: border, KNP	1	1 250 000	1	1 250 000	
Construction/maintenance of KZN fence	1	700 000	2	350 000	
Sub-total Material investments				**1 600 000**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		60 000			
Other university degree		60 000			
Veterinary para-professionals		25 000			
Support staff	300,0	12 500		3 750 000	
Sub-total Salaries				**3 750 000**	
Consumable resources					
Administration		20%		750 000	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**750 000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***6 100 000***	
Total in	***Rand***			***61 000 000***	

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)

The VS will continue to support the establishment of relevant compartments by private industries (e.g. poultry and pig) at their own cost, via providing guidance and support through audit/inspection procedures and advocacy for use in trade. However, the VS will ensure that support for compartmentalisation activity does not overly divert resources from a core role in developing and implementing national animal health programmes to benefit all livestock producers at national level.

4. Activities to implement (chronological)

Specific activities		• Ensure that the VS have adequate resources to partner with industry in the development of compartmentalisation protocols and to audit and inspect compartments to ensure their credibility. • Advocate for the recognition of South African compartments by OIE and trading partners.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Work closely with industry groups interested in and funding compartmentalisation.
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Train staff in auditing compartments.
	III.1 Communication	
	I.11. Management of resources and operations	Develop and implement a record keeping system to support compartmentalisation.
	III.3. Official representation	

5. Objectively verifiable indicators

Accredited compartments in the pig and poultry sector.
Some trading partners (e.g. SADC) have accepted compartmentalisation arrangements for the purposes of international trade.

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)

The VS will recover the authorisation to inspect all animal product processing establishments including for the national market (currently under the responsibility of DoH).
The establishment of this single agency may present an opportunity to rebuild the chain of command to the field relating to meat, dairy and egg product inspection depending on the legislative status/authority of this agency. The VS may consider also incorporating animal health within this agency under a mandate of "farm to fork" whole chain food safety assurance.

4. Activities to implement (chronological)

Specific activities		• Target gaining responsibility for processing food safety standards (including for establishments) in consultation with DoH. • Continue to work with DoH and DTI in the development of the single food safety agency including maintaining sanitary standards for relevant establishments. • Develop good data on the number of distribution outlets by category (butcheries, supermarkets, local meat markets, restaurants) • Develop protocols for inspection of these animal product distribution outlets. • Train and assign enough staff for the authorisation and inspection of all slaughter establishments in the country, including adequate transport[4]
Activities linked to cross-cutting competencies	*III.2 Consultation*	Work closely with DoH and DTI on food product establishment inspection.
	IV.1, 2, 3. Legislation	Analyse the legislative authority that might accompany the development of a single food safety agency
	I.3. Continuing Education	
	III.1 Communication	
	I.11 .Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Registration of facilities and agreement process all along the food chain

[4]NOTE - Other staffing requirements for ongoing food safety inspection are included under CC II-8. B and II-8.C

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars	5	15 000	5	15 000	
4x4 vehicles		20 000	5		
Staff office equipment set	10	3 000	5	6 000	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**21 000**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians	5,0	60 000		300 000	
Other university degree		60 000			
Veterinary para-professionals	5,0	25 000		125 000	
Support staff		12 500			
Sub-total Salaries				**425 000**	
Consumable resources					
Administration		20%		85 000	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year	100 000	0,24		24 000	
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**109 000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***555 000***	
Total in	***Rand***			***5 550 000***	

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 VS will restore slaughter inspection as a function implemented by public staff (or under official delegation) and will progressively establish presence of veterinarians on site, in order to supervise meat inspectors directly.

4. Activities to implement (chronological)

Specific activities		• The priority over the next 5 years will be to implement: full time veterinary inspection in all 180 national high throughput slaughterhouses (180 public veterinarians and 450 veterinary paraprofessionals full time); as many private veterinarians trained, accredited and working as possible for inspection in the rural and other slaughterhouses (180 private veterinarians officially delegated part time corresponding to 12 FTE); and low throughput slaughterhouses continuing to be inspected by meat inspectors with secondary veterinary inspection (340 veterinary paraprofessionals part time corresponding to 150 FTE in 340 slaughterhouses and officially delegated private veterinarians corresponding to 10 FTE for secondary inspection "on call"). • The VS should directly or indirectly employ veterinarians and veterinary paraprofessionals in meat inspection. This service could be cost recovered through a levy per carcase inspected, ensuring that small establishments are not disadvantaged and can afford this inspection service. • Central and provincial VS develop and implement periodic, random audits of veterinary meat inspection activity. • Continue to work with DoH and DTI to develop a the single animal product food safety agency. • Ensure that provincial laboratories have relevant budget to implement more regular food safety analysis (at least current number of 3500 typical 5 bacteria microbiological food safety analysis)
Activities linked to cross-cutting competencies	*III.2 Consultation*	Continue to liaise with the meat industry in the development of an improved, expanded, independent veterinary meat inspection system.
	IV.1, 2, 3. Legislation	Review legislation and regulations relating to slaughterhouse inspection, including penalties.
	I.3. Continuing Education	Train private veterinarians involved in part time ante and post mortem inspection for relevant slaughterhouses. Train auditors.
	III.1 Communication	Develop a communication plan relating to the new independent, veterinary inspection system.
	I.11 Management of resources and operations	Establish a database to nationally collate ante and post mortem inspection findings nationwide, including as a contribution to animal health surveillance.
	III.3. Official representation	

5. Objectively verifiable indicators

Single animal product food safety authority.
At least one veterinarian involved with on site food safety inspection on all high throughput and rural slaughterhouses.
Independent meat inspection with government employing inspectors directly or indirectly (e.g. officially delegated private veterinarians).
Periodic audits of ante and post mortem inspection activities by central and/or provincial VS.

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set	180	3 000	5	108 000	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**108 000**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians	180,0	60 000		10 800 000	
Other university degree		60 000			
Veterinary para-professionals	600,0	25 000		15 000 000	
Support staff		12 500			
Sub-total Salaries				**25 800 000**	
Consumable resources					
Administration		20%		5 160 000	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**5 160 000**	
Delegated activities					
Inspection in rural game, crocodile & rabbit	12	120 000,00		1 440 000	
Supervison of meat inspectors in LTP	10	120 000,00		1 200 000	
Sub-total Delegated activities				**2 640 000**	
Total in	**USD**			***33 708 000***	
Total in	***Rand***			***337 080 000***	

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 VS will take responsibility for developing and implementing food safety standards in all animal product processing facilities. This will mean expanding responsibility from exported products to also include products processed for the national market. This aligns with the principle of maintaining consistent food safety standards between export and national markets, where the veterinary authority maintains whole chain responsibility for the purposes of food safety certification as required by international standards and trading partners. The food safety measures and oversight of animal product distribution will remain the responsibility of DoH, and aquatic animal product food safety will remain the responsibility of DTI, until such time as a single overarching agency may be formed. In the interim, the VS will enhance external coordination with their DoH and DTI colleagues through exploring the establishment of a single central animal product food safety agency covering the whole animal product supply chain, including animal product collection, processing and distribution.

4. Activities to implement (chronological)

Specific activities		• A VS specialist veterinarian will be required to develop an on-site food safety risk analysis and risk management procedures for animal product food processing plants (meat, milk and eggs). The development of this protocol could be paid for by the processor (cost recovered). • The VS would undertake periodic audits of this protocol to ensure proper implementation. • Assign enough human resources for processing inspection
Activities linked to cross-cutting competencies	*III.2 Consultation*	Close consultation with DoH on arrangements for food safety standards in processing establishments.
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	Enhance communication (including formal mechanisms) with DoH/DTI to link food safety aspects of farming, slaughter/collection, processing and distribution e.g. food safety incident trace back and trace forward until such time as a single central agency is formed.
	I.11.Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Registration of processing establishments by VS
Inspection reports and files of each processing establishments
Resources allocated for this inspection
Registration of distribution establishments by DoH and inspection reports and process

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars	10	15 000	5	30 000	
4x4 vehicles		20 000	5		
Staff office equipment set	15	3 000	5	9 000	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**39 000**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians	10,0	60 000		600 000	
Other university degree		60 000			
Veterinary para-professionals	5,0	25 000		125 000	
Support staff		12 500			
Sub-total Salaries				**725 000**	
Consumable resources					
Administration		20%		145 000	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year	200 000	0,24		48 000	
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**193 000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***957 000***	
Total in	***Rand***			***9 570 000***	

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 biological.

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)

The VS will develop regulations over distribution and usage of veterinary medicines

4. Activities to implement (chronological)

Specific activities		• Enhance coordination and communication between the VS and DoH in veterinary drug control (scheduled and over-the-counter). • Improve expertise for evaluating applications for drug registration in certain specialist fields of regulatory science (e.g. toxicology). • Continue to explore the sharing and/or recognition of international evaluations of veterinary drugs to shorten time and effort involved in national registration. • Review and update veterinary drug legislative arrangements to introduce greater veterinary control of distribution and use, including reclassification of some drugs to scheduled consideration of a single Act, changing some drug classifications to scheduled (e.g. tetracyclines, vaccines).and establishing protocols for prudent use of antimicrobials. • Close loop-holes relating to large scale medicinal compounding undertaken by veterinarians, particularly in the intensive industries (medicated feed and autogenous vaccines). • Provide adequate resources for implementation • Progressively impose link between veterinary drug distribution and veterinary practice
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult closely with DoH and the veterinary pharmaceutical industry.
	IV.1, 2, 3. Legislation	Review current legislative arrangements for veterinary drugs.
	I.3. Continuing Education	
	III.1 Communication	Develop communication about new regulations and prudent use for farmers and veterinarians
	I.11.Management of resources and operations	Organise data collection about veterinary medicines distribution and usage, including at farm level
	III.3. Official representation	

5. Objectively verifiable indicators

Regulations on distribution and use of veterinary medicines
Activity reports
Involvement of veterinarians in veterinary medicines distribution

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars	3	15 000	5	9 000	
4x4 vehicles		20 000	5		
Staff office equipment set	3	3 000	5	1 800	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**10 800**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians	3,0	60 000		180 000	
Other university degree		60 000			
Veterinary para-professionals		25 000			
Support staff		12 500			
Sub-total Salaries				**180 000**	
Consumable resources					
Administration		20%		36 000	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year	60 000	0,24		14 400	
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**50 400**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***241 200***	
Total in	***Rand***			***2 412 000***	

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 VS will continue to implement residue testing for relevant export markets and will initiate development of residue testing and control programmes for the dairy and honey industries, including coordination with DoH

4. Activities to implement (chronological)

Specific activities		• Develop residue sampling protocols for dairy and honey industries, including where testing will take place, who will sample, what residues will be tested for and where, maximum residue limits and who will pay. • Develop protocols for managing the detection of unacceptable residue findings (positives), in liaison with DoH (who currently have responsibility for control of milk production). • For dairy and honey, all testing is done through official delegation to accredited private laboratories. For milk, according to data provided, approximately 1500 samples with 16 000 analytes tested per year will be required, at a cost of approximately US$50 per analyte. If we assume 4,000 analytes for honey, 20,000 tests per year. Sampling will be done by processing inspectors already on site and resourced under CCII.8. • Ensure relevant budget for residues testing for export (1 000 000 USD / year from data provided)
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult closely with DoH and relevant industries in the development of the residue control programme.
	IV.1, 2, 3. Legislation	Ensure there are legislative powers to sample, respond to detections through closing down production, recalling product etc.
	I.3. Continuing Education	Train staff in residue sampling.
	III.1 Communication	
	I.11. Management of resources and operations	Ensure that data management can include residues testing
	III.3. Official representation	

5. Objectively verifiable indicators

Initiation of a national residue testing programme with published reports for the honey and dairy industries.

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set		3 000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		60 000			
Other university degree		60 000			
Veterinary para-professionals		25 000			
Support staff		12 500			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Residue testing for milk and honey	20 000	50,00		1 000 000	
Residue testing for export	1	1 000 000,00		1 000 000	
Sub-total Delegated activities				**2 000 000**	
Total in	**USD**			***2 000 000***	
Total in	***Rand***			***20 000 000***	

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 VS will achieve development of a formal national programme for feed safety based on the new Fertiliser and Feeds Bill, including registration of all feed importers, producers and suppliers, and an audit programme.

4. Activities to implement (chronological)

Specific activities		Identify priorities, needs and resources for an updated national feed safety programme, based on the new legislation. Provide adequate resources for this activity
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with the feed industry.
	IV.1, 2, 3. Legislation	Develop relevant legislation review
	I.3. Continuing Education	Train staff in relevant feed safety activity, including audits and sampling.
	III.1 Communication	
	I.11. Management of resources and operations	Ensure that data management capture feed inspection and analysis
	III.3. Official representation	

5. Objectively verifiable indicators

Regulations and staff and activity reports related to feed safety.

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars	2	15 000	5	6 000	
4x4 vehicles		20 000	5		
Staff office equipment set	2	3 000	5	1 200	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**7 200**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians	2,0	60 000		120 000	
Other university degree		60 000			
Veterinary para-professionals		25 000			
Support staff		12 500			
Sub-total Salaries				**120 000**	
Consumable resources					
Administration		20%		24 000	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year	40 000	0,24		9 600	
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**33 600**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***160 800***	
Total in	***Rand***			***1 608 000***	

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)

The VS will strengthen the field veterinary network in South Africa, whereby veterinarians (public and private) are in regular contact with all livestock farmers and the reliance on veterinary paraprofessionals (AHTs) in the field will be reduced. In order to achieve this the link with private veterinarians via official delegation of regulatory activity will be developed.

4. Activities to implement (chronological)

Specific activities		Maintain current dip tank clinical surveillance for FMD in the protection zone implemented by public AHT Progressively establish passive surveillance system through private veterinary network
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with private veterinarians, industry, smallholders and their representatives in the development of official delegation to private veterinarians.
	IV.1, 2, 3. Legislation	Ensure that relevant legislative frameworks supports official delegation to private veterinarians.
	I.3. Continuing Education	Train producers and veterinarians in their responsibilities in relation to recognition and reporting of controlled/notifiable diseases.
	III.1 Communication	
	I.11. Management of resources and operations	Develop and implement a comprehensive national disease reporting system from field to national level that specifies consistent reporting procedures, data management and collation, and includes formal inputs from private veterinarians.
	III.3. Official representation	

5. Objectively verifiable indicators

FMD passive surveillance reports in dip-tanks
Procedures of passive surveillance and activity reports for other relevant diseases

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles	170	20 000	5	680 000	
Staff office equipment set		3 000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**680 000**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		60 000			
Other university degree		60 000			
Veterinary para-professionals	170,0	25 000		4 250 000	
Support staff		12 500			
Sub-total Salaries				**4 250 000**	
Consumable resources					
Administration		20%		850 000	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year	5 100 000	0,42		2 142 000	
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**2 992 000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***7 922 000***	
Total in	***Rand***			***79 220 000***	

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)

The VS will maintain current active surveillance activities for brucellosis, TB, AI, NDV, AHS, pig diseases (5) and BSE, and will progressively transfer these activities to private veterinarians under official delegation

4. Activities to implement (chronological)

Specific activities		• AHS – improve levels of active surveillance in the control zone (estimated some hundreds samples) • AI/NDV – maintain current active surveillance activity in ostrich farms. Enhance national active surveillance in the other poultry sectors. (estimated 40 000 samples) • Brucellosis/TB – Undertake active surveillance and collate data nationally to get clear information on the national prevalence levels of brucellosis and TB to guide the development of national control and/or eradication programmes. • BSE – continue to pursue OIE freedom by increasing levels of active surveillance to demonstrate freedom (estimated around 3000 samples) • Pig Diseases (CSF/PRRS/ASF/Aujeszky/coronaviruses) – estimated 12 000 samples every 3 years • Establish procedures for official delegation to private veterinarians (total estimated 50 FTE)
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with industry and private veterinarians on active surveillance programmes.
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	Establish a national laboratory information management system to collate active surveillance data.
	III.3. Official representation	

5. Objectively verifiable indicators

Enhanced AHS active surveillance levels in the free zone.
More precise national prevalence data for brucellosis and TB
Official OIE freedom for BSE
Completed updated pig diseases survey
Procedures for official delegation and activity reports.

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set		3 000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		60 000			
Other university degree		60 000			
Veterinary para-professionals		25 000			
Support staff		12 500			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources					
Delegated activities					
Pigs, poultry & ostrich diseases and other activities in commercial farms	50	120 000,00		6 000 000	
Sub-total Delegated activities				**6 000 000**	
Total in	**USD**			***6 000 000***	
Total in	***Rand***			***60 000 000***	

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. b

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)

The VS will update and expand contingency planning and train staff, including considering a national simulation exercise for a major disease outbreak in the next five years.
The VS will continue to coordinate with disaster management agencies to ensure access to the police/military for emergency animal disease responses.
NOTE – Emergency response funding and compensation is covered under CCI.9

4. Activities to implement (chronological)

Specific activities		• Restore the chain of command (CC I.6A) • Coordinate emergency response arrangements with the relevant external disaster management authorities. • Update and expand contingency planning, including consideration of a simulation exercise.
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Train staff in emergency preparedness and response.
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Updated and expanded contingency plans.
Completed national simulation exercise

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)

The VS will develop, consult on, and document agreed national compulsory disease control programmes for priority animal diseases.

4. Activities to implement (chronological)

Specific activities		**FMD** – maintain current "dip-tanks" programme within the FMD protection zone alongside Kruger National Park including; FMD vaccination (3 times/year, double doses, on around 200 000 cattle), identification (branding and/or ear-tagging) and fortnightly clinical surveillance. Maintain FMD related movement restrictions and active surveillance including relating to the FMD protection zone, for buffalo movements nationally and for exports. *Note – Upgrading and maintenance of international and Kruger fences is covered under Zoning (critical competency IV.7).* This will be implemented by public AHT **Brucellosis/TB** – establish a central VS team to develop a compulsory control programme for the dairy sector, including a review of previous control policies for lessons learnt. First step is to undertake active surveillance to get accurate prevalence levels. Based on this mass vaccination should be undertaken to reduce the prevalence to a level where an eradication programme involving test and slaughter with compensation can be efficiently implemented. Options to cost recover from producers for vaccination and testing should be fully explored. While the dairy programme is being implemented options to expand this control programme to the beef sector could be developed starting with determining prevalence and mass vaccination. This programme is estimated to start with 700 000 dairy cattle twice a year, implemented by private veterinarians under official delegation. **Anthrax** – establish a compulsory vaccination programme for all cattle in anthrax risk areas to be delivered by VS or officially delegated private veterinarians (estimated 30 000 doses, budget negligible) Ensure there are compensation arrangements to encourage early reporting by affected producers. **Buffalo movements** – continue compulsory active surveillance, identification and vaccination activities to control FMD, corridor disease, TB and brucellosis risks from domestic buffalo movements.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with relevant industries in the development and implementation of the national disease control programmes.
	IV.1, 2, 3. Legislation	Develop and implement legislative support required for the national compulsory disease control programmes.
	I.3. Continuing Education	Train staff and private veterinarians to implement compulsory disease control programmes.
	III.1 Communication	Communicate compulsory national disease control programmes to stakeholders
	I.11. Management of resources and operations	Establish a national reporting system that covers national disease control activities.
	III.3. Official representation	

5. Objectively verifiable indicators

FMD vaccinations number
TB and brucellosis testing and activity reports and official delegation to private veterinarians
Other activity reports

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 ()	7 500				
Maintenance cost per (m2)	7 500	30	1	225 000	
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles	600	20 000	5	2 400 000	
Staff office equipment set	30	3 000	5	18 000	
Other specific office equipment set					
Other specific equipment					
clinical equipment for state vets clinics	30	2 000	5	12 000	
Sub-total Material investments				**2 655 000**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians	30,0	60 000		1 800 000	
Other university degree		60 000			
Veterinary para-professionals	570,0	25 000		14 250 000	
Support staff		12 500			
Sub-total Salaries				**16 050 000**	
Consumable resources					
Administration		20%		3 210 000	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year	18 000 000	0,42		7 560 000	
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
FMD vaccines	1 200 000	2,50		3 000 000	
Tuberculin	1 400 000	0,75		1 050 000	
Sub-total Consumable resources				**14 820 000**	
Delegated activities					
Brucellosis & TB in dairy production	25	120 000,00		3 000 000	
Sub-total Delegated activities				**3 000 000**	
Total in	**USD**			***36 525 000***	
Total in	***Rand***			***365 250 000***	

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)

The VS will develop an animal welfare policy with relevant resources in order to avoid the juridical problems currently existing which costed millions of USD to DAFF

4. Activities to implement (chronological)

Specific activities		• Establish an animal welfare unit with relevant expertise within the central VS. The experts warned the VS that the stated target for a unit with a Director and five staff seems excessive. • Tasks are to update the two relevant Acts, provide independent review for animal welfare legal disputes (such as raised recently), develop a communication, compliance and enforcement programme (based on the new legislation) and develop capacity in animal welfare science. • Establish an animal welfare coordinator in each province responsible for training, extension and compliance within provinces to implement the legislation. Actual extension and enforcement in the field should be undertaken by field veterinarians (including private) and animal health technicians in the relevant domains (e.g. slaughter welfare standards in VPH, farm welfare standards during farm visits, transport welfare standards during border inspection and movement control activity etc.)
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with relevant NGOs, industry and provincial authorities, especially in the development of updated animal welfare legislation.
	IV.1, 2, 3. Legislation	Update legislation (two outdated Animal Welfare Acts) and related regulations
	I.3. Continuing Education	Animal welfare training relevant to new legislation from central to provincial to field
	III.1 Communication	Animal welfare communication and extension relevant to new legislation for stakeholders.
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Updated animal welfare legislation.
An animal welfare unit in place at central level and animal welfare coordinators in place in each province.
Animal welfare related penalties imposed on those not complying with legislative requirements e.g. livestock transporters or slaughter establishments.

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars	1	15 000	5	3 000	
4x4 vehicles	9	20 000	5	36 000	
Staff office equipment set	14	3 000	5	8 400	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**47 400**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians	12,0	60 000		720 000	
Other university degree	1,0	60 000		60 000	
Veterinary para-professionals		25 000			
Support staff	1,0	12 500		12 500	
Sub-total Salaries				**792 500**	
Consumable resources					
Administration		20%		158 500	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year	20 000	0,24		4 800	
Km or miles 4x4 vehicle / year	270 000	0,42		113 400	
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**276 700**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***1 116 600***	
Total in	***Rand***			***11 166 000***	

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)

The VS will maintain access to excellent sub-national, national and international laboratory testing capabilities via its functional laboratory network. The VS should ensure that OVI's core role in providing national diagnostic services for controlled diseases is sufficiently balanced against competing needs for developing and funding veterinary research.

4. Activities to implement (chronological)

Specific activities		Ensure that OVI respond adequately to the needs of VS in term of reference laboratory, either by revising the MoU ensuring timely response (despite OVI research institutions own targets), either by paying laboratory analysis based on international tariff and competition, either by recovering authority of the VS over the OVI.
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

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 VS will maintain existing laboratory infrastructure for diagnosis of controlled diseases, updating equipment as is feasible.
The VS, in partnership with the South African Veterinary Council, should remove current restrictions on employment of non-Board registered staff (i.e. non-veterinarians and non-veterinary technologists) in veterinary laboratories as this has created a problem for laboratories in employing certain specialists, such as in molecular biology and biochemistry. Scientists with relevant qualifications should be able to be employed in veterinary laboratories based on merit rather than Board registration.

4. Activities to implement (chronological)

Specific activities		• Develop project to develop food safety laboratory capacity to test the 5 significant bacteria (slaughterhouses require approximately 5 000 tests per year). • Discuss smoothening laboratory procurement through centralised and/or collaborative arrangements. • Ensure regular budget for maintenance of equipment (estimated 20% of value per year)
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	Remove legislative irregularities relating to the restrictive employment of laboratory staff (especially those related to the VSB imposing vet lab technicians trained in a specific school of SA)
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	• Develop a LIMS system, functional and efficient national laboratory information management system to collate data nationally. • Establish a lab information system that can collate and report active surveillance data nationally.
	III.3. Official representation	

5. Objectively verifiable indicators

Merit based recruitment in veterinary laboratories
A functional LIMS being actively used by all provincial labs enabling DAFF to produce national laboratory data reports
Resources of laboratory network and activity reports

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 ()	25 000				
Maintenance cost per (m2)	25 000	30	1	750 000	
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles	18	20 000	5	72 000	
Staff office equipment set	100	3 000	5	60 000	
Other specific office equipment set					
Other specific equipment					
Laboratory equipment (all included)	1	12 500 000	5	2 500 000	
Sub-total Material investments				**3 382 000**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians	33,0	60 000		1 980 000	
Other university degree	16,0	60 000		960 000	
Veterinary para-professionals	68,0	25 000		1 700 000	
Support staff	128,0	12 500		1 600 000	
Sub-total Salaries				**6 240 000**	
Consumable resources					
Administration		20%		1 248 000	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year	540 000	0,42		226 800	
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
diagnostic (provincial level)	1	1 500 000,00		1 500 000	
diagnostic (national level - OVI)	1	1 000 000,00		1 000 000	
Sub-total Consumable resources				**3 974 800**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***13 596 800***	
Total in	***Rand***			***135 968 000***	

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 VS will maintain the excellent progress made with ISO 17025 QA certification for controlled disease testing throughout the national laboratory network (public and private). The aim is to complete QA accreditation for the remaining private laboratories involved with official diagnosis.

4. Activities to implement (chronological)

Specific activities		• Progressively withdraw DAFF accreditation support as more provincial and private labs are able to sustain their own official ISO accreditation. • Maintain laboratory QA arrangements nationally targeting 100% accreditation with a considered withdrawal of DAFF support as this becomes sustainable within participating accredited laboratories. • Ensure relevant budget for QA including calibration, metrology and proficiency testing, estimated around 10% of value of equipment
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Ensure budget for continuing education amounts around 5% of total salaries
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

ISO 17025 accreditation of all the laboratories involved in official diagnostic activities.

VETERINARY LABORATORIES - 3 CC: II-2. Laboratory quality assurance					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (m2)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set		3 000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)	1 560,0	180		280 800	
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure				**280 800**	
Salaries					
Veterinarians		60 000			
Other university degree		60 000			
Veterinary para-professionals		25 000			
Support staff		12 500			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Calibration and proeficiency testing	1	1 250 000,00		1 250 000	
Sub-total Consumable resources				**1 250 000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***1 530 800***	
Total in	***Rand***			***15 308 000***	

E. Critical Competencies for Management of Veterinary Services

General Competencies

VS– 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)

Higher levels of VS technical independence will be improved drastically by restoring the national chain of command (CCI-6A), establishing independent meat inspection (CCII-8) and improving contact between veterinarians and farmers/animals in the field (CCI-5A and III-6).

4. Activities to implement (chronological)

Specific activities		Refer to the relevant CCs as above.
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

Chain of command
Procedures and human resources for food safety inspection
Veterinarians' field network

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)

Stabilisation of structure and policies is targeted through the overall proposed reorganisation of the VS with medium to long term strategic and technical planning in all aspects of VS including in; overall VS strengthening, national disease control programmes, animal production food safety, the field veterinary network and zoning.

4. Activities to implement (chronological)

Specific activities		• Develop a national strategic plan (5 year) for strengthening VS, building on the findings of both the OIE PVS Evaluation and the PVS Gap Analysis reports. • Develop national disease control strategies/plans (5 years) for priority controlled diseases • Develop a national strategy for field animal health services provision (5 years). This may involve some adaptation to existing plans for livestock primary health care and compulsory community service. • Develop a national strategy for animal production food safety incorporating national independent veterinary inspection from farm to the processing level and considering the development of a single central food safety agency. • Allow sufficient time to DAFF i dedicated to the development of these strategies including adequate consultation with provincial veterinary authorities and industry.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with provincial VS and industry
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	Communicate strategic plans as appropriate when agreed and finalised.
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Completed strategic plans in all the above veterinary domains.

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)

The VS will restore their internal chain of command from central level to field level in all relevant activities mainly through institutional reform (creation of National Food Authority inclusive of all VS domains), development of official delegation to private veterinarians in the field (to re-establish data and information flow and management of disease control activities from and to the field), and to organise institutional arrangements with provincial or municipal authorities for some remaining minor aspects

4. Activities to implement (chronological)

Specific activities		• Re-establish the national veterinary chain of command through reviewing DAFF organogram arrangements, considering opportunities presented by the single central food safety authority (including in animal health to develop a "farm to fork" approach), aligning animal health with functional national governance arrangements in plant health, and strengthening DAFF's national audit functions in animal health and VPH. • In the interim, strengthen collaborative policy and planning activities between the DAFF and provincial VS leadership in the development of agreed national policies, strategies and programmes in animal health and VPH to improve consistency of implementation nationally • Advocate at senior levels the functional plant health national chain of command as a model • Review the DAFF organogram to also incorporate trade aspects of VS (border control and exports) in a direct VS line of authority with animal health and VPH. • Expand DAFF audit functions of provincial VS activities. • Intensify collaborative meetings, teleconferences and out-of-session activity between central and provincial VS leadership to develop nationally agreed policies and programmes and to build accountability for nationally consistent delivery. • Chain of command could be structured through a central level, 9 provincial levels and 52 districts level (currently 100 state veterinary offices out of which 48 would remain only "public veterinary clinics" as long as there is no private veterinarians and progressively disappear)
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	Explore legislative opportunities to strengthen the chain of command, such as through the independent and public status of the National Food Authority.
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Chain of command from national to field level
Agreed national policies and programmes
Updated DAFF organogram
Higher levels of audit activity by DAFF in all domains.

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 ()	12 000				
Maintenance cost per (m2)	12 000	30	1	360 000	
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars	20	15 000	5	60 000	
4x4 vehicles	60	20 000	5	240 000	
Staff office equipment set	232	3 000	5	139 200	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**799 200**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians	119,0	60 000		7 140 000	
Other university degree	26,0	60 000		1 560 000	
Veterinary para-professionals		25 000			
Support staff	87,0	12 500		1 087 500	
Sub-total Salaries				**9 787 500**	
Consumable resources					
Administration		20%		1 957 500	
Travel allowances					
staff within the country (person-days) / year		150			
drivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year	400 000	0,24		96 000	
Km or miles 4x4 vehicle / year	1 800 000	0,42		756 000	
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**2 809 500**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***13 396 200***	
Total in	***Rand***			***133 962 000***	

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 VS will enhance coordination and collaboration with relevant partner authorities in human health, including through a single food safety agency and in veterinary drug control, or provincial and municipal authorities with external arrangement for minor aspects not included in the chain of command

4. Activities to implement (chronological)

Specific activities		• The development of a single food safety agency will improve external coordination with DoH in food safety. Whole chain food safety collaboration and communication should be strengthened in the interim. • Collaboration with DoH will also be enhanced in veterinary drug control (such as through a single Act) and in residue testing. • Collaboration with customs and border police at the border, including to rationalise DAFF border staffing requirements. • Clearer responsibilities in international and KNP fencing with the National Parks and the Department of Public Works. • Clearer external arrangements with municipalities and provinces on minor aspects not included in the chain of command (eg stray dogs, etc)
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	Consider a single Veterinary Drug Act to bring together and simplify functions between DAFF and DoH.
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Existence of the National Food Authority
External arrangements with municipalities, provinces, customs, wildlife

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)

The VS will strengthen capacity in risk analysis, including not just import risk analysis but also for animal health and VPH.
Concurrently the current classification of animal production systems (commercial, emerging, communal and subsistence) is inappropriate for risk analysis and diseases control plans, and should be totally reviewed to establish a relevant typology of farming systems which includes all aspects of animal production chain (species, breeds, land, feed, breeding, numbers, ownership, manpower, processing, sales, purchases…).

4. Activities to implement (chronological)

Specific activities		• conduct a national study on the types of livestock farming systems, including specifying breeding, management and marketing activity and associated producer numbers by type (estimated 30 weeks of international expertise and 440 days of national expertise). • provide specialised training on risk analysis to relevant staff at central level (estimated 12 man-months over the next five years)
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Ensure that relevant staff at provincial level receive adequate training or information about risk analysis
	III.1 Communication	Ensure communication of risk analysis implemented report
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Trainings in risk analysis
Documentation of risk analysis implemented.
Detailed report on animal production systems in South Africa and classification, numbers and distribution

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set		3 000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)	12,0	5 000			60 000
Continuing education (person-days/year)		180			
National expertise (days/5 years)	440,0	450			198 000
International expertise (weeks/5 years)	30,0	8 000			240 000
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**498 000**
Salaries					
Veterinarians		60 000			
Other university degree		60 000			
Veterinary para-professionals		25 000			
Support staff		12 500			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		150			
drivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
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**				***498 000***
Total in	***Rand***				***4 980 000***

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)

In order to increase the presence of veterinarians in the field and in slaughter inspection, the VS will develop official delegation to private veterinarians to undertake national disease control programme activities, including in smallholder areas. Possible delegated activities may include vaccination, surveillance/sampling, meat inspection, livestock identification and extension work. The establishment of veterinary contact should allow opportunities for developing sustainable private animal health care service delivery which in turn enhances passive surveillance and early detection.

4. Activities to implement (chronological)

Specific activities		• Rapidly expand levels of official delegation to private veterinarians in animal health (national disease control and identification programmes) and VPH (part time meat inspection). • Maintain and expand official delegation of controlled disease and food safety testing to private laboratories. • Develop a system to officially delegate tasks to private veterinarians that includes specific contractual arrangements for the timing and quality of the delivery of tasks, as well as for task or time based remuneration, including procedures of control of execution and payment
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with private veterinarians and laboratories on official delegation.
	IV.1, 2, 3. Legislation	Review legislative provisions for official delegation as required.
	I.3. Continuing Education	Train private veterinarians in officially delegated tasks (e.g. part time meat inspection)
	III.1 Communication	
	I.11. Management of resources and operations	Ensure data from officially delegated activity is recorded and feeds into national databases. Relevant procedures for control of execution of official delegation by VS Relevant procedures for payment of official delegation by VS
	III.3. Official representation	

5. Objectively verifiable indicators

regulations, procedures for official delegation
list of private veterinarians and laboratories with official delegation.

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set		3 000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		60 000			
Other university degree		60 000			
Veterinary para-professionals		25 000			
Support staff		12 500			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		150			
drivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
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	***Rand***				

Total of delegated activities costed elsewhere	***28 140 000***

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)

Maintain current levels of VSB authority.

4. Activities to implement (chronological)

Specific activities		• include meat inspectors within the VSB as veterinary para-professionals • remove constraints on laboratories about exclusive use of veterinary laboratory technicians • establish detailed procedures of effective supervision for all categories of veterinary para-professionals and different categories of tasks (including derogatory measures to supervision for specific tasks where it is not considered necessary at the moment e.g. “FMD mouthing and footing” at dip-tank)
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

procedures of effective supervision per category of veterinary para-professionals and per task

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)

Maintain current levels of VSB capacity.

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

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)

The VS will ensure that all producers form part of disease control programmes through their contact with public or private veterinarians and their contributions to voluntary disease control activity (e.g. non-compulsory vaccination and farm biosecurity)

4. Activities to implement (chronological)

Specific activities		• Ensure that all producers need to be made aware of their need to report “specific signs” of specific controlled diseases e.g. FMD.
		• Implement activities relating to primary animal health care (PAHC) through official delegation as much as is feasible.
		• Develop joint programmes with commercial farmers with support from a subsidised annual visit (see CC II-5.B) and consultations (see CC III-3)
		• Ensure regular contact (once a year) between veterinarians and small holders
		• Ensure that PAHC definition and implementation is clearly understood as a joint effort for development (and not a free service as charity) in order to all farmers:
		  ○ to be included in all national AH and VPH official programmes
		  ○ to have contact with private veterinary services
		  ○ to have access to relevant extension and public awareness

Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	Deliver communication and awareness programmes for producers on controlled diseases, their reporting obligations and disease control activities such as vaccination and farm biosecurity.
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Relevant development of PAHC
New disease control plans established as joint programmes

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set		3 000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		60 000			
Other university degree		60 000			
Veterinary para-professionals		25 000			
Support staff		12 500			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		150			
drivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Brucellois vaccines for small farmers (PAHC)	1 000 000	0,50		500 000	
Sub-total Consumable resources				**500 000**	
Delegated activities					
Primary Animal Health Care activities	1	14 500 000,00		14 500 000	
Sub-total Delegated activities				**14 500 000**	
Total in	**USD**			***15 000 000***	
Total in	***Rand***			***150 000 000***	

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 specialized 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)

Ensure veterinary education in South Africa adequately services VS needs.

4. Activities to implement (chronological)

Specific activities		• Include a greater focus in the veterinary curriculum on non-companion animals, risk analysis and veterinary public health through close alignment with the Day One competencies of the OIE. • At post graduate level develop specialist recognition for these areas of VS including in veterinary governance, epidemiology, disease control, risk analysis and VPH. • Expose veterinarians to their social responsibilities through their education.
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

- Curricula align with the OIE day one competencies.
- Post graduate specialist recognition in the VS fields.

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)

The VS will ensure veterinary paraprofessional education in South Africa adequately services VS needs, with a reduction of AHT, an increase of VPH technicians, and a possible shift on training of animal production technicians (not veterinary para-professionals)

4. Activities to implement (chronological)

Specific activities		• Reassess the training of veterinary paraprofessionals given the policy on provision of field veterinary services in the country, including via official delegation to private veterinarians. • Training should be focused on evolving VS needs from this category of staff e.g. food processing • Explore role of veterinary paraprofessionals and what they are registered to do under the supervision of veterinarians.
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 paraprofessional training is closely aligned with the needs of the VS.
Clear definition of veterinary supervision for the various domains of work of veterinary paraprofessionals.

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)

The VS will maintain their high level of continuing education in both public and private sector, but in addition will develop procedures to evaluate the impact of this training ion their activity in their workplace

4. Tasks to implement (chronological)

Specific tasks		• Maintain at least a minimum of 1% of the total salary bill of the VS expended on continuing education, which equates to approximately 5 days per year on average. • Maintain CPD requirements for approximately 3 days per year of intensive training. • Necessary level of continuing education is estimated at 5% of salaries amount in laboratory for purpose of quality assurance (see II.1.B) • Develop a training plan for staff that prioritises their training needs. • General estimate is made for approximately 2 000 technical staff (veterinarians and veterinary paraprofessionals) with approximately 5 days training each at a cost of approximately US$1.8 million which represents 2% of the combined VS technical salaries. • Audit training including measurement of workplace effectiveness.
Tasks 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 developed
All technical staff receive approximately 5 days training a year.
Training audited.

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set	4	3 000	5	2 400	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**2 400**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)	10 000,0	180		1 800 000	
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure				**1 800 000**	
Salaries					
Veterinarians	1,0	60 000		60 000	
Other university degree	2,0	60 000		120 000	
Veterinary para-professionals		25 000			
Support staff	1,0	12 500		12 500	
Sub-total Salaries				**192 500**	
Consumable resources					
Administration		20%		38 500	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**38 500**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***2 033 400***	
Total in	***Rand***			***20 334 000***	

Total of continuing education programmes costed elsewhere	**2 960**	**180**		**532 800**

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)

The VS will deploy a huge effort to revamp all data management systems in the country so they are both national and functional.

4. Activities to implement (chronological)

Specific activities		• Develop new national data collection and management systems that are compatible between provinces for livestock census and identification, disease reporting, laboratory information, VPH activity, border inspection etc. • Increase the number of dedicated staff in data management to handle national databases in all domains • Recruit 24 university degree specialists in data management (2 per province and 6 at central level), which include here relevant staff for individual identification of cattle • Audit data management from field to national levels for accuracy and completeness.
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

Data management specialists employed.
New national databases developed.
Nationally collated data reported.
Audits of data are conducted and confirm accuracy and completeness.

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set	24	3 000	5	14 400	
Other specific office equipment set					
Other specific equipment					
Central data manegement equipment	1	1 000 000	5	200 000	
Sub-total Material investments				**214 400**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)	2 000,0	450			900 000
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**900 000**
Salaries					
Veterinarians		60 000			
Other university degree	24,0	60 000		1 440 000	
Veterinary para-professionals		25 000			
Support staff		12 500			
Sub-total Salaries				**1 440 000**	
Consumable resources					
Administration		20%		288 000	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**288 000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***1 942 400***	***900 000***
Total in	***Rand***			***19 424 000***	***9 000 000***

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)

More closely link dedicated communications expertise with the work of the VS.

4. Activities to implement (chronological)

Specific activities		• Recruit 1 university degree communication specialist for coordinating communication across all veterinary domain and tailoring a communication framework for primary animal health care. • Ensure there is a focus on risk communication as well as general extension and media management. • Tap into the credibility of local veterinarians (public and private) in the delivery of communication and extension messaging in the field.
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 specialist recruited.
Effective communications across all veterinary domains.

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set	2	3 000	5	1 200	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**1 200**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		60 000			
Other university degree	1,0	60 000		60 000	
Veterinary para-professionals		25 000			
Support staff	1,0	12 500		12 500	
Sub-total Salaries				**72 500**	
Consumable resources					
Administration		20%		14 500	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
General communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**14 500**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***88 200***	
Total in	***Rand***			***882 000***	

MVS– III-2. Consultation with interested parties

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)

The VS will play a more active role in stakeholder consultation and formally record outcomes of stakeholder interaction, incorporating inputs into policies and programmes where feasible.

4. Activities to implement (chronological)

Specific activities		• Establish further formal mechanisms for stakeholder consultation, in addition to the existing Animal Health Forum. • Document all outcomes of stakeholder consultation with opportunities for stakeholder comment, prior to finalisation.
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

Additional formal mechanisms for stakeholder consultation initiated by VS across all veterinary domains.
Documented outcomes of stakeholder consultation, including within VS policies and programmes.

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[5] 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)

4. Activities to implement (chronological)

Specific activities		Dedicate approximately 30 international staff weeks per year to multi-lateral official representation (OIE-4, Codex-6, SADC-8, AU-4, SPS-10) and approximately 20 international staff weeks to bilateral official representation (10 weeks X2 staff=20)
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

International meeting attended

[5] 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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set		3 000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		60 000			
Other university degree		60 000			
Veterinary para-professionals		25 000			
Support staff		12 500			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year	50	6 200		310 000	
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**310 000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***310 000***	
Total in	***Rand***			***3 100 000***	

Total for official representations costed elsewhere	**6 200**

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)

The VS will continue to review and develop appropriate legislation in relevant domains, with the support of legal advisers

4. Activities to implement (chronological)

Specific activities		Implement new legislative reviews and requirements in areas such as VPH, livestock identification, disease control, animal welfare, border controls, veterinary drugs and official delegation. Recruit 3 legal advisers at central level to insure consistency of legislation
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with all stakeholders in developing and updating legislation.
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	Communicate new or updated legislation
	I.11.Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Legislation developed and/or updated in line with VS needs.

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set	4	3 000	5	2 400	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**2 400**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		60 000			
Other university degree	3,0	60 000		180 000	
Veterinary para-professionals		25 000			
Support staff	1,0	12 500		12 500	
Sub-total Salaries				**192 500**	
Consumable resources					
Administration		20%		38 500	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**38 500**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***233 400***	
Total in	***Rand***			***2 334 000***	

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 VS are confronted with the complexity of the juridical system in South Africa and need the support of legal advisers to ensure that all procedures are correctly implemented in order to get compliance of stakeholders

4. Activities to implement (chronological)

Specific activities		Recruit12 legal advisors in the VS (3 central and one in each province, each with office equipment) to deal with the fact that the process to enforce penalties is very involved and often inconsistent nationally.
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

Enforcement of legislation including successfully issuing penalties across all veterinary domains.

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)		30	1		
Renovation cost per (m2)		150	15		
Building cost per (m2)		600	25		
Transport (Purchasing cost)					
Motorbikes		7 500	5		
Cars		15 000	5		
4x4 vehicles		20 000	5		
Staff office equipment set	9	3 000	5	5 400	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**5 400**	
Non material investments					
Training					
Specialised training (person-months/5 years)		5 000			
Continuing education (person-days/year)		180			
National expertise (days/5 years)		450			
International expertise (weeks/5 years)		8 000			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		60 000			
Other university degree	9,0	60 000		540 000	
Veterinary para-professionals		25 000			
Support staff		12 500			
Sub-total Salaries				**540 000**	
Consumable resources					
Administration		20%		108 000	
Travel allowances					
staff within the country (person-days) / year		150			
rivers within the country (person-days) / year		150			
staff abroad (person-weeks) / year		6 200			
Transport costs					
Km or miles Motorbikes / year		0,12			
Km or miles cars / year		0,24			
Km or miles 4x4 vehicle / year		0,42			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Kits / reagents / vaccines					
Sub-total Consumable resources				**108 000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***653 400***	
Total in	***Rand***			***6 534 000***	

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[6], and use the standards to harmonise national legislation, regulations and sanitary measures.

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

- Actively participate in the setting of international animal health and food safety standards.
- Harmonise legislation with international standards.

4. Activities to implement (chronological)

Specific activities		• Harmonise legislation nationally as much as is feasible wherever there are inconsistencies between provincial laws and regulations • Recruit legal experts to ensure that newly developed or updated legislation is harmonised with the relevant international standards.
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

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

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)

Maintain and increase levels of veterinary staffing and maintain merit based recruitment and performance management activity.

4. Activities to implement (chronological)

Specific activities		Veterinary graduate numbers to increase to 200 per year.
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)

Reassess the numbers of veterinary paraprofessionals trained given the policy on provision of field veterinary services in the country, including via an evolution from government field veterinary paraprofessionals to official delegation to private veterinarians.

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

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)

Maintain levels of physical resources will be the priority during the next five years, as main investments should be done on human resources

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

Geographical and functional distribution of physical resources

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)

Funding of the VS should be financed through levies applied in the animal production chain

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	Develop a financial data management system which allows to establish comparisons, cost/benefit and efficiency analysis
	III.3. Official representation	

5. Objectively verifiable indicators

Geographical and functional distribution of operational funding

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)

- The VS will formalise access to emergency funds at national level to better ensure its availability for emergency animal disease responses.
- The VS will develop legislation and regulations for compensation of producers and communicate its availability to producers.
- The VS will continue to work with industry to establish systems for co-contributions to compensation, as piloted successfully with the pig industry.

4. Activities to implement (chronological)

Specific activities		Formalise access to emergency response funding.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with industry on emergency response planning and funding arrangements, including for compensation.
	IV.1, 2, 3. Legislation	Develop legislation for compensation of producers.
	I.3. Continuing Education	
	III.1 Communication	Communicate with relevant producers the availability of compensation fund to maximise its positive influence on reporting and early detection.
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

Formal process to access emergency response funding
Compensation scheme legislated and includes industry contribution.
Compensation successfully communicated to relevant producers

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)

Financing of VS could be enhanced by levies paid by animal production chain

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	Establish relevant data management of capital investment
	III.3. Official representation	

5. Objectively verifiable indicators

Geographical and functional distribution of capital investment

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

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.

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 + 0.3 x the number of equides and camelids + 0.3 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	*Animal census*
E2	*Animal census and hourseholds*
E3	*Meatprocessing plant per provinces*
E4	*Abattoirs list*
E5	*Organigram of central and each provincial VS*
E6	*List of BIPs and consignements*
E7	*Maps for roads, provinces, districts, agriculture, vet offices, lab, BIPs*
E8	*Veterinary practices per districts (map)*
E9	*Poultry statistics*
	MISSION DOCUMENTS
H1	*South African veterinary public health strategy. DAFF (draft)*
H2	*Community Animal Health Care Services. Strategy review document 2013. DAFF*
H3	*Report on Food Safety and Food Control in South Africa: specific reference to meat labelling. DoH, DTI, DAFF. 2013*
H4	*Final Proposal for a Meat Inspection Service in South Africa. DAFF (Meat Inspection Work Group Report). 2013*
H5	*Veterinary Strategy (Draft 9). DAFF*
H6	*Categorization of Animal Diseases for Disease Control Purposes. DAFF*
H7	*Animal Improvement Policy for South Africa. DAFF. 2006*
H8	*Animal Welfare Strategic Plan.*
H9	*Livestock Development Strategy for South Africa 2006-15. DAFF.*
H10	*List of licenced veterinary medicine producers, importers and wholesale*
H11	*Number of food safety laboratory tests*

Appendix 4: Persons participating in working sessions

Participants	Institution
Mr Ramasodi	DAFF/Agricultural Production, Health and Food Safety – Chief Director
Dr Modisane	DAFF/Animal Production and Health – Chief Director
Dr Maja	DAFF/Animal Production and Health/Animal Health – Director
Dr Songabe	DAFF/Animal Production and Health/Veterinary Public Health – Director
Dr Molefe	DAFF
Dr Mathonsi	DAFF
Dr de Klerk	DAFF
Dr Dippenaar	DAFF
Dr Bronkhorst	DAFF
Dr Mbizeni	DAFF
Dr Magwadere	DAFF
Mr Ramsey	DAFF
Ms Madau	DAFF
Mr Luvhimbi	DAFF
Mr Maisha	DAFF
Dr Moswa-Kato	DAFF
Dr Guremocheche	DAFF
DrNtshabele	DAFF/SAVC
DrMoroe-Rulashe	DAFF
Mr Mudzunga	DAFF
Dr Paterson	DAFF
Ms Banda	DAFF
Mr Erasmus	DAFF
Dr Pienaar	DAFF
Dr Naidoo	DAFF
Dr Reddy	DAFF
Dr Cloete	DAFF
Dr Loxley	DAFF
Dr Booker	DAFF
Dr Gerstenberg	DAFF
Dionne Rauff	Deltamune
Dr Rabolao	Gauteng Province
Dr Nemudzivhadi	Gauteng Province
Dr Kalake	Gauteng Province
Mr Venter	Gauteng Province
Dr Akerele	Gauteng Province
Dr de Bude	Gauteng Province
DrGeertsma	Gauteng Province
Dr Walters	Gauteng Province
Dr Mampane	Limpopo Province
Dr Mnisi	Mpumalanga Province
Dr Mbizeni	Kwazulu Natal Province
Dr Chisi	Kwazulu Natal Province
Dr Nkosi	North West Province
Dr Henwood	Western Cape Province
Dr Msiza	Western Cape Province
Dr Roberts	Western Cape Province
Dr Msiza	Western Cape Province
Dr Wolhuter	Western Cape Province
Dr Rosani	Eastern Cape Province
Dr Ndudane	Eastern Cape Province
Dr Kegakilwe	Northern Cape Province
MsKutu	NRCS
Mr van der Merwe	NRCS
Penny Campbell	Dept of Health
Dr Sigobodhla	Dept of Health
Dr Kangumba	North- West province
Dr Njiro	ARC - OVI
Dr Pieter Vervoort	AHF