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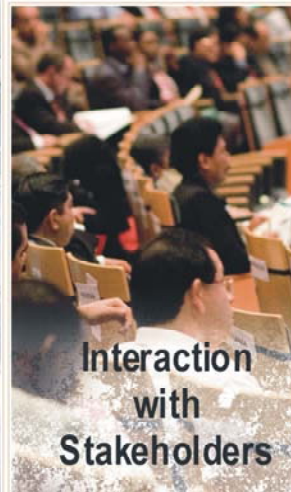
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Tool for the evaluation of Performance of Veterinary Services

oie PVS Tool

PVS Evaluation Report



May
2011

Ethiopia

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OIE - PVS EVALUATION

REPORT OF THE

VETERINARY SERVICES OF

ETHIOPIA

3rd May 2011 to 17th May 2011

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This evaluation has been conducted by an OIE PVS Evaluation Team authorised by the OIE. However, the views and the recommendations in this report are not necessarily those of the OIE.

The results of the evaluation remain confidential between the evaluated country and the OIE until such time as the country agrees to release the report and states the terms of such release.

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List of acronyms, abbreviations and/or special terms

AHA	Animal Health Assistant (VS employee with diploma in animal health)
APHRD	Animal and Plant Health Regulatory Directorate
ARIS	Animal Resources Information System
AU-IBAR	African Union-Inter African Bureau for Animal Resources
AU-PANVAC	African Union-Pan Africa Veterinary Vaccine Centre
BSL	Biosafety Level
CAHNET	Community Animal Health Network
CAHWs	Community Animal Health Workers
CBPP	Contagious Bovine Pleuropneumonia
CBT	Commodity Based Trade
CC	Critical Competency (of the PVS Tool)
COMESA	Common Market for Eastern and Southern Africa
CSA	Central Statistics Authority of Ethiopia
CVL	Central Veterinary Laboratory
CVO	Chief Veterinary Officer
DFID	Department for International Development – UK
DVM	Diplomate of Veterinary Medicine (veterinary degree)
DVS	Director of Veterinary Services – Chief Veterinary Officer (CVO)
ELTA	Ethiopian Livestock Traders Association
EVA	Ethiopian Veterinary Association
FAO	Food and Agriculture Organisation of the United Nations
FMD	Foot and Mouth Disease
GDP	Gross Domestic Product
HACCP	Hazard Analysis Critical Control Point
HPAI	Highly Pathogenic Avian influenza
HQ	Headquarters
HR	Human Resources
IAH	Institute for Animal Health – UK
IGAD	Inter-Governmental Agency for Development
IT	Information Technology
ISO	International Standards Organization
IZSve	<i>Istituto Zooprofilattico Sperimentale delle Venezie - Italy</i>
LIMS	Laboratory Information Management System
MENA	Middle East and North Africa Countries
MoA	Ministry of Agriculture
MoF	Ministry of Fisheries
MoH	Ministry of Health
MoU	Memorandum of Understanding
NAHDIC	National Animal Health Diagnostic and Investigation Center
NBE	National Bank of Ethiopia
NGO	Non-Government Organisation
NDV	Newcastle Disease Virus
NVI	National Veterinary Institute
OFFLU	OIE/FAO Global Network of Expertise on Animal influenzas
OIE	World Organisation for Animal Health
OIE-PVS	OIE Performance of Veterinary Services Evaluation Tool
OVI	Onderstepoort Veterinary Institute-South Africa
PA	Peasant Association (neighbourhood or kebele)
PACE	Pan Africa Control of Epizootics
PARC	Pan Africa Rinderpest Campaign
PCP	Progressive Control Pathway [for FMD]
PPR	Peste des Petits Ruminants

QMS	Quality Management System
RVF	Rift Valley Fever
SANAS	South Africa National Accreditation System
SNNP	Southern Nations, Nationalities and Peoples (region of Ethiopia)
SOP	Standard Operating Procedure
SPS LMM	Sanitary and Phytosanitary Livestock Meat Marketing (USAID programme)
STEP	Southern Tsetse Fly Eradication Programme
TVET	Technical and Vocational Education and Training Centre
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VS	Veterinary Service(s)
VPH	Veterinary Public Health
VSB	Veterinary Statutory Body (see OIE Code definition)
WAHID	World Animal Health Information Database

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PART I: EXECUTIVE SUMMARY

I.1 Introduction

The development of many countries in the world depends on the performance of their agricultural sectors and therefore the Veterinary Services (VS) of such countries must play a pivotal role. Important functions for VS are in animal health and livestock productivity, veterinary public health (including prevention and control of food-borne diseases), and national and international market access for live animals and animal products. To meet these important opportunities and challenges, it is essential that VS are of high quality, operate on science-based principles and are both technically competent and independent.

For VS to achieve their objectives and to support compliance with OIE international standards, the OIE has developed the Performance of Veterinary Services (PVS) Pathway, comprising PVS Evaluation (“diagnosis”), PVS Gap Analysis (“prescription”) and various options in support of national planning based on the findings (“treatment”). The PVS Pathway is designed to assist VS to establish their current level of performance, to identify gaps and weaknesses regarding their ability to comply with OIE international standards, to form a shared vision with stakeholders (including the private sector), and to establish priorities and carry out strategic initiatives geared towards meeting their objectives, aligned with international standards.

The Animal and Plant Health Regulatory Directorate (APHRD) of the Ministry of Agriculture (MoA) of Ethiopia has as one of its priorities, amongst other tasks, to facilitate access to international markets for animals and animal products. The OIE has the designated responsibility under the World Trade Organisation for setting sanitary standards for international trade in animals and animal products. Implementing such standards, including standards on the quality of VS, aims to ensure that international trade in animal and animal products is conducted safely, but devoid of unjustified technical and political barriers. Ethiopia’s decision to request an OIE PVS evaluation is therefore a step towards this goal, measuring current performance with an independent, objective evaluation that can feed into VS strategic planning, investments and implementation to better meet national livestock priorities, including for trade.

The request for the PVS evaluation of Veterinary Services of the Federal Democratic Republic of Ethiopia evaluates VS capabilities within the context of criteria set out in the OIE Terrestrial Animal Health Code (Chapters 3.1 and 3.2), using the OIE PVS tool. The evaluation was conducted from 3rd May 2011 to 17th May 2011 by a team made up of three independent technical experts (namely: William Amanfu-Team Leader, Junaidu A. Maina and John Stratton – technical experts) approved and selected by the OIE.

I.2 Key findings of the evaluation

Ethiopia has a very rapidly improving animal health system of commendable quality. It has benefitted from detailed preparations for this OIE PVS evaluation as observed through field visits, in oral presentations and documentary evidence provided to the team.

The Ethiopian Veterinary Services Strategic and Performance plan (2010-2013) was made available to the team. It was clear during our mission that there was a series of activities over recent years, particularly targeting critical competencies (CCs) of the PVS tool that might have been deemed as gaps in early 2008. There is evidence of recent activities to improve the delivery of veterinary services, inclusive of increased funding and improvements in general management and internal coordination mechanisms such as through Memoranda of Understanding with regional institutions. The Ethiopian Animal Health Yearbook published by APHRD in September 2010 is a good indicator of this improvement and provides an overview of the breadth and depth of recent Ethiopian VS planning and activities. As a single document providing an overall summary and many key statistics, it is a useful resource document to accompany this PVS evaluation report. It includes such details

as budget increases over the previous three years, monthly disease reporting rates by region and woreda, outbreak reporting and active disease surveillance sampling numbers by disease and region, detailed statistics of vaccine production and use.

Key gaps still exist such as in enacting the new legislation for the Veterinary Statutory Body, field staff technical capacity, farmer representation and consultation, the VS chain of command, consistency of slaughterhouse hygiene and inspection, residue testing, animal product (milk) safety, and livestock and product traceability. Regulatory or other measures to support safe trade across terrestrial borders, especially imports, were not evaluated due to time and security constraints.

Ethiopia's rapid improvement is a good indication of the value of using the OIE PVS Tool as a guiding framework for VS prioritization and planning at any stage of development. Ethiopia is encouraged to engage with the OIE PVS Gap Analysis as part of the next step in the OIE PVS Pathway. Developing or refining national planning based on independent PVS reports, themselves based on international standards, can be useful in advocacy to political decision-makers to target support for and investment in the Strategic Plan for its successful implementation. Furthermore, an additional PVS follow up evaluation in several years time, using this report as a benchmark and utilising identical methodologies, is a strong way to independently measure progress over time.

1.2.A Human, physical and financial resources

The human, physical and financial resourcing of the Ethiopian Veterinary Services (VS) is at a good level, as a consequence of steady improvements in provisions over recent years. This reflects the very high political priority placed on livestock health and production within Ethiopia, in recognition of the high numbers of livestock held (the largest in Africa now that Sudan has been split into two countries), their export potential, and livestock as a source of national economic growth and poverty reduction. Professional staffing in central and regional VS is adequate and at woreda and sub-woreda level is variable, but improving. This is due to major growth in veterinary and veterinary paraprofessional training. Over the past decade the number of veterinary schools in Ethiopia has increased from one to nine. With such rapid growth comes risks relating to maintaining educational and professional standards. Some interim measures such as harmonising curricula and strengthening the role of an active Ethiopian Veterinary Association (EVA) have taken place. However, a key action needed to improve the situation is the immediate establishment of a Veterinary Statutory Body or Veterinary Council - VSB (see section 1.2C).

Physical and financial (operational and capital expenditure) resources were reported as being generally adequate after significant improvements over recent years. Central and regional laboratories are well equipped though attention will be needed relating to the sustainability and volume of services such as with ongoing equipment and vehicle maintenance, reagent costs and technological upgrades. Veterinary infrastructure out to the field is improving as the government moves towards an ambitious target of providing approximately one animal health clinic or post per three peasant associations (PAs) or kebele (neighbourhoods). Emergency funding provisions exist for animal health emergencies.

Both APHRD and the regions generally combine regulatory biosecurity functions for animals and plants, a structure reportedly based on the United States system. However, the Oromia region is currently piloting a new structure with the creation of a dedicated, independent high level Livestock Development and Animal Health Agency, separate from plants. This seems to have improved technical independence and chain of command arrangements for the VS which appear stronger and better organised in this region.

VS management systems generally seemed to have benefitted from a nationwide government policy focused on Business Process Re-Engineering, incorporating approaches based on sound planning, efficiency, stakeholder service, transparency and accountability. Data management is being streamlined through an information technology (IT) consultancy commissioned by APHRD, which aims to update the current paper based systems.

1.2.B Technical authority and capability

The diagnostic laboratory system is well established in Ethiopia in terms of physical infrastructure, cadre of well qualified personnel and equipment layout. The principal diagnostic and research laboratory is the National Animal Health Diagnostic and Investigation Center (NAHDIC) which serves as the reference centre for 14 regional laboratories. A MoU was signed in 2009/10 to better clarify the relationship and responsibilities. Regional labs are heavily involved in field disease investigation and sampling. This reliance could be lessened by regional lab staff carrying out capacity building of field staff at woreda level to carry out these field roles and allow lab staff to travel less and focus more on core laboratory activities. In recent times, NAHDIC has been the beneficiary of internal and external equipment supply and capacity building efforts and maintains technical support links with reputable veterinary laboratories in France, United Kingdom, South Africa, Italy and others. NAHDIC has a recently refurbished a BSL2+ laboratory specifically fitted for the diagnosis of HPAI and other pathogens of zoonotic significance. There are concerns about low throughput in this laboratory but recognition attained during the PVS mission as an East African regional reference lab for HPAI/NDV should improve its use including for samples provided from neighbouring countries. NAHDIC laboratory is in the final stages of implementing its Quality Management System as part of seeking independent accreditation to ISO-17025

APHRD is most directly involved with mandates relating to export facilitation for both meat and live animals, where its chain of command is both short and strong. APHRD provides professional and technical support to its own field teams that are posted to export abattoirs (for meat) and export quarantine offices (for live animals). These provide, respectively, the requisite meat inspection and food safety standards certification critical for livestock product exports and the requisite quarantine and inspection certification for live animal exports of cattle, sheep and goats. The export sector does not yet operate within a legal framework, with the relevant proclamation drafted and before the Council of Ministers. Veterinary inspection of meat for domestic consumption is mostly carried out by local woreda veterinary or veterinary para-professional staff to lower standards. Food safety controls and traceability of other livestock products such as milk and milk products requires attention.

Risk analysis plays a significant role in trade relations with importing countries on live animals and livestock products exports but should also provide the technical basis for the progressive prevention and control of TADs, such as relevant to vaccine deployment. There is the need to institutionalize this position by specifically training someone as a specialist in risk analysis, and providing basic, tailored training for regional and woreda level staff.

There is an urgent need for food safety controls on livestock products, such as in managing the risk raw milk may pose to human health through the zoonotic transmission of bovine brucellosis or tuberculosis.

Livestock traceability is only substantively employed for the export sector, whereby movement permits from source markets and eartag identification upon entry into feedlots takes place. Animal welfare is at its early stages in Ethiopia but the VS are engaged and active, with policies and legislation evolving, led by an Animal Welfare Working Group with some support from relevant non-government organisations (NGOs)

1.2.C Interaction with stakeholders

Interaction with Stakeholders is an area of significant weakness for the Ethiopian VS. The government (with external support from the USAID SPS LMM project) is facilitating industry representation for export traders (live animal and meat), but this is at a relatively early stage and is yet to be independently or financially sustainable.

There is very little industry representation for livestock farmers, especially at national level. Sub-nationally livestock farmer representation was claimed to exist (unions and

cooperatives) No groups were met during the mission despite requests. Where these groups exist it would appear that linkages with the VS are weak or non-existent. APHRD communications provides a Yearbook, regular monthly and quarterly newsletters and bulletins but it is unlikely these forms of animal health communications extend beyond veterinary and veterinary para-professional staff to producers and other relevant stakeholders.

The lack of farmer representation could be due to the fact there are few large scale commercial livestock producers - who tend to be more readily organised and contactable. The government could still usefully facilitate representation for smaller farmers, including pastoralists, in line with its support for the livestock export industries. Unlike farmers, the veterinary service providers, veterinarians and community animal health workers, are well represented through an active Ethiopian Veterinary Association (EVA) and Community Animal Health Network (CAHNET) respectively.

With a rapidly expanding number of veterinary educational establishments, Ethiopia urgently needs a Veterinary Authority [Board or Council] with the requisite powers to regulate the veterinary profession and set standards for both veterinary education and practice. The APHRD is the lead agent working in conjunction with the EVA in the establishment of an Ethiopian VSB. This initiative is to be commended but as the VSB develops, international standards require that the VSB should be an independent, regulatory body for the profession, with a clear separation from the advocacy role of the Veterinary Association. Ethiopian veterinary official representation is strong. The Ethiopian CVO was until very recently the President of the OIE Regional Commission for Africa.

Although the VS has authority to accredit/delegate VS to the private sector, this is yet to happen, and the stated policy of private provision of VS needs clarity. In the short to medium term there should be a gradual increase in the already existing cost recovery mechanisms for the expanding government field VS (who also deliver clinical services). This is arguably a more sensible interim step towards privatisation than trying to create “de novo” a competitive private field VS.

1.2.D Access to markets

The major driver for the ongoing strengthening of the Ethiopian VS is to facilitate the country’s significant potential to increase livestock and livestock product exports. Ethiopia already exports a large number of live animals and animal products to the Middle East. Export feedlots and quarantine stations are privately owned but a government quarantine office (of which there are three in the country) oversees the quarantine trade facilitation process by conducting inspections and vaccinations, and certifying the animals as having met requirements. The quarantine stations are well managed and thorough record keeping is maintained, as required for the routine audits of the system by importing countries. Two new government owned quarantine stations are being built close to eastern borders, with the aim of expediting movement through transit countries (e.g. Djibouti) directly to the Middle East. There are risks relating to bilateral agreements with transit countries to this end.

Export certification activity is underpinned by legislation some of which is outdated and needs urgent replacement. A new proclamation will address this, entitled “Livestock and Livestock Products Import and Export Control”.

The next step to further improve sanitary measures in support of live animal and meat exports would involve extending the SPS LMM certification system to incorporate aspects relating to farm (or market) of origin. This more complete certification could be piloted, in line with the national or sub-national development of stronger field disease surveillance and control.

Table 1: Summary of OIE/PVS evaluation results

PVS results summary of Ethiopia	Central level of VS	2nd level of VS	Field level of VS	Global Result
I. HUMAN, PHYSICAL AND FINANCIAL RESOURCES				
I.1.A. Staffing: Veterinarians and other professionals	3	2	2	2
I.1.B. Staffing: Veterinary paraprofessionals and other	4	4	4	4
I.2.A. Professional competencies of veterinarians	3	2	2	2
I.2.B. Competencies of veterinary paraprofessionals	3	3	3	3
I-3. Continuing education	4	4	4	4
I-4. Technical independence	3	3	3	3
I-5. Stability of structures and sustainability of policies	4	4	4	4
I-6.A. Internal coordination (chain of command)	2	2	2	2
I-6.B. External coordination	3	3	3	3
I-7. Physical resources	3	3	3	3
I-8. Operational funding	4	4	4	4
I-9. Emergency funding	3	3	3	3
I-10. Capital investment	3	3	3	3
I-11. Management of resources and operations	3	3	3	3
II. TECHNICAL AUTHORITY AND CAPABILITY				
II-1. Veterinary laboratory diagnosis	4	4	3	4
II-2. Laboratory quality assurance	2	2	1	2
II-3. Risk analysis	2	2	1	2
II-4. Quarantine and border security (note-only relevant to international airport)	3	-	-	3
II-5.A. Passive epidemiological surveillance	2	2	2	2
II-5.B. Active epidemiological surveillance	3	3	2	3
II-6. Early detection and emergency response	3	3	3	3
II-7. Disease prevention, control and eradication	3	3	2	3
II-8.A. Ante and post mortem inspection	3	3	2	3
II-8.B. Inspection of collection, processing and distribution	2	2	2	2
II-9. Veterinary medicines and biologicals	3	3	3	3
II-10. Residue testing	1	1	1	1
II-11. Emerging issues	3	3	3	3
II-12. Technical innovation	2	2	1	2
II-13.A. Animal identification and movement control	3	3	3	3
II-13.B. Identification and traceability of animal products	2	2	2	2
II-14. Animal welfare	2	2	2	2
III. INTERACTION WITH STAKEHOLDERS				
III-1. Communications	3	3	3	3
III-2. Consultation with stakeholders	2	2	2	2
III-3. Official representation	3	3	3	3
III-4. Accreditation/authorisation/delegation	2	2	2	2
III-5.A. Veterinary Statutory Body Authority	1	1	1	1
III-5.B. Veterinary Statutory Body Capacity	1	1	1	1
III-6. Participation of producers and other stakeholders in joint programmes	2	2	2	2
IV. ACCESS TO MARKETS				
IV-1. Preparation of legislation and regulations	3	3	3	3
IV-2. Implementation of legislation and regulations and stakeholder compliance	2	2	2	2
IV-3. International harmonisation	4	4	4	4
IV-4. International certification	3	3	3	3
IV-5. Equivalence and other types of sanitary agreements	3	3	3	3
IV-6. Transparency	4	4	4	4
IV-7. Zoning	1	1	1	1
IV-8. Compartmentalisation	1	1	1	1

I.3 Key recommendations

I.3.A Human, physical and financial resources

- Finalise the establishment of the Veterinary Statutory Body (VSB) as soon as possible.
- Create an annual Veterinary Faculty Dean's Forum attended by all Deans with rotating Chair and Secretariat to discuss harmonization of veterinary educational standards, curriculum development, VS needs and related issues. Consider including the (new) VSB, EVA and APHRD representatives as key observers.
- Formalise and document human resources management across the VS including merit based recruitment and promotion policy and protocols, detailed job descriptions, work planning, performance evaluation, career pathways and succession planning.
- Consider the creation of a National Veterinary Committee or equivalent where the national CVO and all regional heads of animal health meet together formally and at regular intervals to discuss and agree on policy and programmes, and to monitor their nationally consistent implementation. Consider also inviting a key laboratory representative (head of NAHDIC) and a small number of other key senior stakeholders.
- Ensure a clear, legislated chain of command involving singular decision making authority and accountability during a declared animal health emergency.
- Verify the apparent success of the pilot independent (from plants) Livestock/Animal Health Agency in Oromia, and consider expanding this model to other regions and nationally.
- Develop a detailed implementation plan for the rolling out of the new veterinary IT database system that is currently in development by APHRD. This should include performance indicators, a budget and workplan for necessary consultations and training, as well as planning on how the data will be analysed and used.

I.3.B Technical authority and capability

- Build capacity of woreda level staff to undertake field disease investigations and basic sampling (e.g. serum) to a higher level of quality, to reduce dependence on travel and field work by Regional Laboratory staff.
- Improve levels of surveillance after vaccination to better monitor the effectiveness or otherwise of vaccination activities.
- Continue efforts to improve levels of monthly disease reporting from woredas through training and public reporting of results (such as in the Yearbook).
- Ensure government funded transboundary animal disease (TADs) vaccination programmes are delivered according to evidence based geographical disease risk and not just on animal populations and/or local political priorities.
- Audit export slaughterhouses such that standards of hygiene and inspection (ante-mortem and post-mortem) are consistent and that those slaughterhouses not actively pursuing HACCP accreditation are brought up to this standard
- Progressively improve the hygiene and inspection standards of domestic slaughterhouses to equivalence with those of export slaughterhouses, starting with the largest slaughterhouses servicing the national market.
- For small slaughterhouses and slaughterslabs, gradually improve hygiene and inspection standards and integrate planned slaughterhouse active surveillance programmes into the activities of woreda meat inspection staff to increase and motivate technical input
- Institute a meat residue testing programme using the new food safety laboratory under construction at Kality and starting with a scientifically based testing programme in export slaughterhouses as the priority. At the same time roll out an awareness campaign relating to drug withdrawal periods.
- Extend food safety awareness, measures and regulations to animal products such as milk and milk products, with a priority focus on zoonotic risks, particularly brucellosis and tuberculosis, from raw milk.

1.3.C Interaction with stakeholders

- The Ethiopian Council of Ministers should rapidly enact new legislation for the establishment of an Ethiopian VSB and care needs to be taken to ensure its independence such that it can perform its regulatory functions free from both political interference and professional advocacy.
- APHRD should facilitate the establishment of producer associations at national level, as it is doing for the livestock export industries (partnered with the USAID SPS LMM programme).
- Institutionalise animal health communication functions and networks (structures and/or focal points) in both regional bureaus and woredas.
- Communication and awareness campaigns should be increased to ensure farmers and farmer groups support and participate in future programmes
- Support the formation of new producer associations to increase their impact as key conduits for communications messages.
- Expand joint programmes incorporating greater cost recovery for clinical services provided by government veterinary and veterinary para-professional staff. For example, a small service fee could accompany the existing fees for medicines and “List B” vaccinations currently charged to producers.
- Ethiopia should continue the practice of active participation and cooperation with regional organisations, and engagement with international organisations such as OIE.

1.3.D Access to markets

- APHRD should urgently lobby for the rapid passage of updated draft legislative proclamations and regulations with the relevant authorities and institutions, including for import and export quarantine.
- An implementation plan for newly enacted legislation, taking cognisance of the country's federal structure, should be prepared. The regulations' salient features should be presented in an easily understood manner to relevant stakeholders to best ensure compliance.
- VS staff capacity building on OIE standards, including an interactive dialogue on contemporary OIE issues, should be pursued.
- Regular review of the SPS certification system for live animal and meat exports should be undertaken to ensure national consistency and adaptability to evolving disease situations
- Better certainty is required in the relationship with transit countries concerning sanitary measures for export inclusive of the exact implications of the new official export quarantine stations.
- Further improvements to the SPS certification system incorporating aspects of animal farm (or market) of origin could be piloted, in line with stronger field surveillance and reporting.

PART II: CONDUCT OF THE EVALUATION

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

To assist countries to establish their current level of performance, form a shared vision, establish priorities and carry out strategic initiatives, the OIE has developed an evaluation tool called the OIE Tool for the Evaluation of Performance of Veterinary Services (OIE PVS Tool¹) which comprises four fundamental components:

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

These four fundamental components encompass 46 critical competencies, for each of which five qualitative levels of advancement are described. For each critical competency, a list of suggested indicators was used by the OIE Evaluation Team to help determine the level of advancement.

A glossary of terms is provided in Appendix 2.

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

The objective and scope of the OIE PVS evaluation includes all aspects relevant to the OIE Terrestrial Animal Health Code and the quality of Veterinary Services. In addition, the scope and objectives were clarified before the mission (see Appendix 7) as appropriate to the mandate and context of the VS in this country.

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

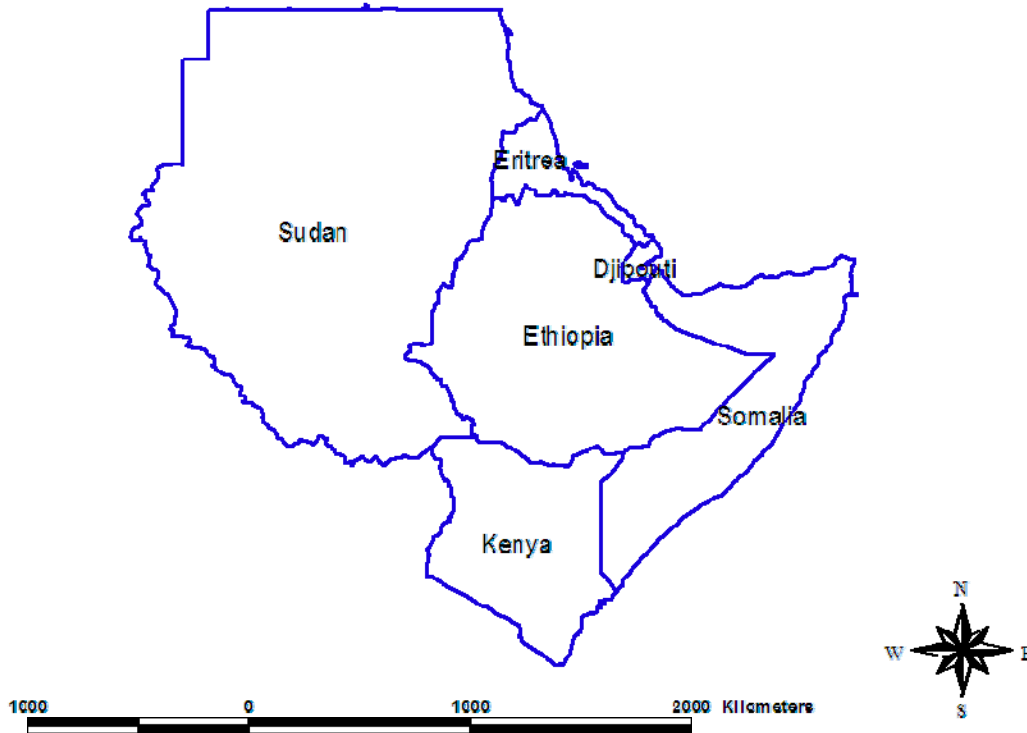
Ethiopia is in East Africa and a major portion of the country lies in the Horn of Africa which is the easternmost part of the main African continental landmass. Bordering Ethiopia is Sudan to the west, Djibouti and Eritrea to the north, Somalia to the east, and Kenya to the south. Ethiopia has a total land area of 1,104,300 sq km with a population of 84.9 million people (UN 2010). Within Ethiopia, there is a vast highland complex of mountains and plateaus divided by the Great Rift Valley which runs generally southwest to northeast and is surrounded by lowlands or semi-deserts. The great diversity of terrain determines wide variations in climate, soils, natural vegetation, settlement patterns and livestock/wildlife diversity. The Ethiopian highlands which cover most of the country have a climate which is generally cooler than other regions at similar proximity to the Equator.

The economy of Ethiopia is based on the agricultural sector which contributes 40-50% of the GDP, over 90% of the foreign exchange earnings and about 85-90% of the employment opportunities in the country (USDS, 2010). The majority of agricultural output is generated from crop and livestock integrated production systems. The livestock subsector alone contributes 12% of the total and over 45% of the agricultural GDP (NBE, 2008). Ethiopian livestock population which is the largest in Africa has reached about 52 million cattle, 33 million sheep, 30 million goats and 2.5 million camels (CSA, 2009). The main exports of Ethiopia are coffee, hides and skins, oilseeds, beeswax and sugarcane. Cross-border trade by pastoralists is informal and often beyond state control and regulation. The unofficial trade in live cattle, camels, sheep and goats from Ethiopia sold to Somalia, Kenya and Djibouti generates an estimated total value of between US\$250 and US\$300 million annually. However there are serious implications, as the unregulated and undocumented nature of

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

this trade exposes all involved countries to the risk of transboundary animal diseases [TADs] putting any eventual export of live animals at serious risk of facing renewed trade bans.

Map of National borders (including its neighbours) of the Federal Democratic Republic of Ethiopia



Map of the Federal Democratic Republic of Ethiopia including its Regions

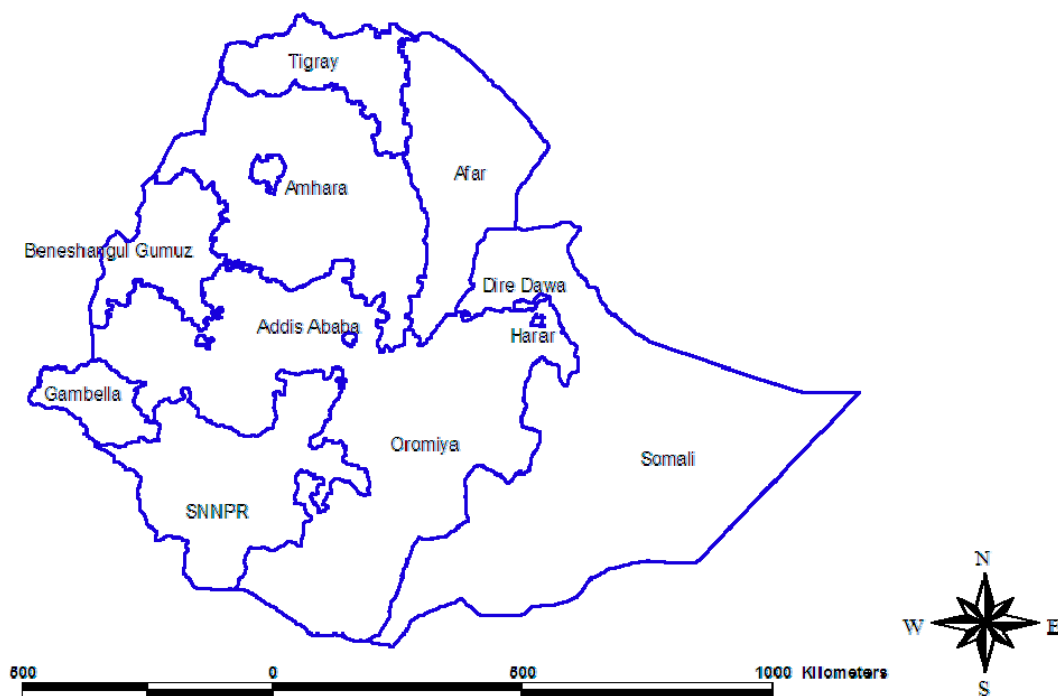


Table 2: Data summary for geography, agriculture and livestock

Geographic features

Climatic and/or agro-ecological zones	Altitude	Rainfall (mm/year)	Topography	Km2	%
High Wurch (alpine)	>3,700	>1,400	Total area	1,127,127	**
Wet Wurch (Sub alpine)	3,700-3,200	>1,400	Pasture lands	574, 835	51
Moist Wurch (Subalpine)	3,700-3200	1,400-900	Arable land	169,069	15
Wet dega (highland)	3,200-2,300	>1,400	Forest	45,085	4
Wet woyna dega (mid altitude)	2,300-1,500	>1,400	Wetlands/deserts	16,907	1.5
Moist woyna dega (mid altitude)	2,300-1,500	1,400-900			
Dry woyna dega (mid altitude)	2,300-1,500	<900	Highlands	495,936	44
Wet kola (lowland)	1,500-500	>1,400			
Moist kola (lowland)	1,500-500	1,400-900			
Dry kola (lowland)	1,500-500	<900			
*Bereha (lowland deserts)	<500	<900			

Source: MoA (as provided by APHRD).

*Note: The extreme desert (between 500 to 126 meters) area is not traditionally classified

**Note: Total % is above hundred as some of the categories areas with the highlands

Demographic data

Human population		Livestock households/farms	
Total number	73,918,505	Total number	11,157,519
Average density / km2	66 persons/sq.km	% intensive	5,167*
% of urban	16	% agro-pastoral (mixed)	-
% of rural	84	% extensive	11,152,352

*Dairy

Source: Ethiopian Central Statistical Agency, as provided by APHRD

Current livestock census data

Animals species	Total Number	Intensive production system (% or no.)	Mixed production system (% or no.)	Extensive production system (% or no.)
Cattle	51, 827,445	<1%		Nearly 100%
Sheep	33,071,619	-		100%
Goat	30,331,586	-		100%
Poultry	37,961,676	2%		98%
Equidae	5,304,461	-		100%
Camels	2,491,283	-		100%

Source: Ethiopian Central Statistical Authority, as provided by APHRD

Animal and animal product trade data

Animals and animal products	Average annual import		Average annual export	
	Quantity	Value	Quantity	Value-USD
Live Animal	-		333,743	90,713,875
Meat and Meat Products	7,406 MT		10,182,196 MT	33,999,375
Honey	-	-	561,609 Kg	1,889,375
Hides & Skins	-	-	2,910,680 Kg	59,450,244
Bee wax	-	-	363,391 Kg	1,598,914
Other Animal Products	-	-	2,500,600 Kg	891,907
Milk and Milk Products	8,141,430 kg		-	-
TOTAL				

Source: Ethiopian Customs Authority, as provided by APHRD

Economic data (as provided by APHRD)

National GDP	USD 135.5 Billion
Agricultural GDP	USD 34.5 Billion
National budget	USD 5.93 Billion
Livestock GDP	11.5% of National GDP, 45% of Agricultural GDP (<i>stats from APHRD Yearbook</i>) = USD 15.6 Billion
Economic value of livestock population	Estimated at USD 6.4 Billion*
Annual public sector contribution to agriculture	??
Annual budget of the Veterinary Services	USD 6.4 Million (govt), USD 4.7 Million (projects) (<i>APHRD powerpoint, opening meeting, 2010/11 figure for APHRD ONLY, not including regions/woredas etc</i>)

*Estimated average price of all ages for cattle @1500 Birr; sheep and goat@ 200 Birr; poultry @ 20 Birr; equine @ 2000 Birr and Camels @ 3000

II.3 Context of the evaluation

II.3.A Availability of data relevant to the evaluation

A list of documents received by the Team before and during the PVS Evaluation mission is provided in Appendix 6.

All documents listed in Appendix 6 are referenced to relevant critical competencies to demonstrate the levels. Documents and pictures are also referenced to relevant critical competencies to support the related findings.

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

Table 3: Summary of data available for evaluation

Main document categories	Data available in the public domain	Data accessible only on site or on request	Data not available
→ Animal census:			
○ at 1st administrative level	X		
○ at 2 nd administrative level	X		
○ at 3rd administrative level			X
○ per animal species		X	
○ per production systems	X		
→ Organisations charts			
○ Central level of the VS		X	
○ 2 nd level of the VS		X (for regions visited)	
○ 3 rd level of the VS		X (for woredas visited)	
→ Job descriptions in the VS			
○ Central levels of the VS	X (available in Amharic. Yet to be translated into English)		
○ 2 nd level of the VS		X (for some regional labs)	
○ 3 rd level of the VS			X
→ Legislations, regulations, decrees ...			
○ Animal health and public health		X	
○ Veterinary practice			X
○ Veterinary statutory body		X (draft only)	
○ Veterinary medicines and biologicals	X		
○ Official delegation			X
→ Veterinary census			
○ Global (public, private, veterinary, para-professional)		X	
○ Per level		X (for sites visited)	
○ Per function		X (for sites visited)	
→ Census of logistics and infrastructures			X
→ Activity reports		X	
→ Financial reports		X	
→ Animal health status reports		X	
→ Evaluation reports			X (PVS self evaluation undertaken in 2008)
→ Procedures, registers, records, letters ...		X	
→			

II.3.B General organisation of the Veterinary Services

The Ethiopian Governance Context

Ethiopia has a tiered government system consisting of a federal government overseeing ethnically based regions, comprising zones, districts (woredas), and neighbourhoods (kebele or peasant associations).

Ethiopia is divided into nine ethnically based administrative regions and subdivided into sixty-eight zones and two chartered cities. It is further subdivided into 550 woredas and several special woredas.

The constitution assigns extensive power to regional states that can establish their own government and democracy according to the federal government's constitution. Each region has its apex regional council where members are directly elected to represent the woredas and the council has legislative and executive power to direct internal affairs of the regions. The councils implement their mandate through an executive committee and regional sectoral bureaus, including for agriculture. Such an elaborate structure of council, executive, and sectoral public institutions is replicated to the next level (woreda).

Veterinary Services Governance Structure

This basic command structure is reflected in Ethiopia's VS which are decentralised, where regions and woredas have some level of autonomy. Efforts have been made by APHRD to coordinate VS responsibilities and activities and improve line management, for example, through the signing of MoUs and the application of the provisions of the *Animal Diseases Prevention and Control Proclamation No. 267 of 2002*.

In these MoUs, the Federal VS has the overall leadership and technical support responsibilities to regions on issues relating to coordination of TADs prevention and control, and full leadership and implementation responsibilities for quarantine and inspection, import and export certification for animals and animal products, and to represent the country at regional and international forums.

Under the Ministry of Agriculture and Rural Development, the Agricultural Development State Ministry has four technical directorates and one office:

- Animal and Plant Health Regulatory Directorate
- Extension Directorate
- Agricultural Investment Promotion Directorate
- Agricultural inputs supply Directorate.
- Support to Emerging Regions Office

The majority of central level veterinarians are employed by the Animal and Plant Health Regulatory Directorate (APHRD) but the Extension Directorate does have a small team of three vets responsible for animal health communications in liaison with APHRD. APHRD itself is comprised of four case teams and one centre as follows:

- Inspection & Certification Case Team
- Disease Risk Analysis Administration Case Team (sometimes called the Epidemiology team)
- Quarantine Stations Case Team
- Export Abattoirs Meat Inspection & Certification Case Team and
- National Animal Health Diagnostic and Investigation Centre (NAHDIC).

Three case teams focus on sanitary export facilitation (inspection and certification for live animals and meat), while the fourth disease risk analysis administration (or epidemiology) case team develops disease control and related policy and strategies. NAHDIC not only does laboratory diagnosis but has a strong role in designing surveillance programmes, undertaking technical capacity building and outbreak disease investigation when required.

At the level of the regions and down to the field, organisation of the Veterinary Services is variable, but the general administrative arrangements are:

- Regional Bureau of Agriculture (or Pastoralist Commission)
- Zonal office of Agriculture
- Woreda office of Agriculture
- Sub-Woreda level animal health clinic/posts (Peasant/Pastoral Association)

The Regional VS have responsibility to work closely with the Federal Government on coordinating TADs control; surveillance and reporting, disease investigation, sampling, information exchange, vaccination and stakeholder (farmer) awareness and communications. The regional laboratories tend to take the lead technically providing capacity building for field staff at woreda level and also have a strong field role in disease investigations and sampling. The VS components of Regional Bureaus tend to coordinate activity from a policy and administrative perspective.

Similar to the national level, most regions have combined animal and plant health authority and functions within their Bureaus or equivalent. Although authority may be joint, practically, animal and plant functions seem to operate mostly independently with animal and plant staff housed separately, with their own separate policies and programmes. However, the Oromia region is piloting a separate, autonomous livestock and animal health agency with senior authority, with some success. In addition, three regions, Oromia, Afar and SNNP, have divided governance and management structures at Bureau level based on geographical responsibility. The “bureau” component is responsible for highland areas and specialist Pastoralist Commissions are responsible for lowland, pastoralist areas. This division is in recognition of the special needs and forms of support people and livestock in such parts of these regions require. It should be noted that Somali National Regional State is predominantly pastoral and only has one regional governance structure.

















The Zones play a smaller coordination role with generally only one veterinarian or veterinary para-professional employed, they collate information gathered from the more substantively active woreda level.

The woredas and the sub-woredas are the field VS level. They provide clinical services, undertake surveillance and control activities for TADs, and conduct meat inspection for domestic consumption. In terms of structure they usually comprise an administrative office which may or may not be combined with a central animal health clinic, surrounded by a number of small and basic animal health posts distributed throughout the woreda. Woreda field VS charge producers for clinical drugs and for non-transboundary disease vaccines. Clinical services and vaccinations against priority TADs (termed “List A” diseases and based on the old OIE List A diseases) are provided free of charge as supported by the government. Privatised delivery of field VS is negligible. Most private veterinarians only provide services for pets in the cities.

II.3.C Animal disease occurrence

Information on animal disease occurrence from the OIE website (see table 4)

Table 4: Disease status of the country²

Disease	Notifiable	Domestic	Wild	
		Status	Notifiable	Status
Actinomycosis		Clinical Disease		Not Applicable
African horse sickness		Clinical Disease		No information
Anthrax		Clinical Disease		Clinical Disease
Avian mycoplasmosis (<i>M.synoviae</i>)		Suspected		No information
Blackleg		Clinical Disease		Not Applicable
Bov. genital campylobacteriosis		Suspected		No information
Bovine anaplasmosis		Clinical Disease		No information
Bovine babesiosis		Clinical Disease		No information
Bovine tuberculosis		Clinical Disease		No information

² This information is taken directly from the OIE World Animal Health Information Database (WAHID) website

Brucellosis (<i>Brucella abortus</i>)	✓	Clinical Disease	✗	No information
Brucellosis (<i>Brucella melitensis</i>)	✓	Clinical Disease	✗	No information
Camelpox	✗	Clinical Disease		Not Applicable
Caseous lymphadenitis	✗	Suspected		Not Applicable
Coccidiosis	✗	Clinical Disease		Not Applicable
Contagious bov. pleuropneumonia	✓	Clinical Disease	✗	No information
Contagious cap. pleuropneumonia	✓	Clinical Disease	✗	No information
Distomatosis (liver fluke)	✗	Clinical Disease		Not Applicable
Dourine	✓	Clinical Disease	✗	No information
Echinococcosis/hydatidosis	✗	Confirmed infection (no clinical disease)	✗	No information
Enterotoxaemia	✗	Clinical Disease		Not Applicable
Equine piroplasmosis	✗	Suspected	✗	No information
Filariasis	✗	Clinical Disease		Not Applicable
Foot and mouth disease	✓	Clinical Disease	✗	Suspected
Foot-rot	✗	Clinical Disease		Not Applicable
Fowl cholera	✓	Clinical Disease	✗	No information
Fowl typhoid	✗	Clinical Disease	✗	No information
Glanders	✓	Suspected	✗	No information
Haemorrhagic septicaemia	✓	Clinical Disease	✗	No information
Heartwater	✗	Clinical Disease	✗	No information
Infec bursal disease (Gumboro)	✓	Clinical Disease	✗	No information
Intestinal Salmonella infections	✗	Clinical Disease		Not Applicable
Leishmaniosis	✗	Suspected	✗	No information
Lumpy skin disease	✓	Clinical Disease	✗	No information
Marek's disease	✗	Suspected	✗	No information
Mycoplasmosis (<i>M. gallisepticum</i>)	✗	Suspected	✗	No information
Newcastle disease	✓	Clinical Disease	✗	Clinical Disease
Other clostridial infections	✗	Suspected		Not Applicable
Other pasteurelloses	✗	Clinical Disease		Not Applicable
Peste des petits ruminants	✓	Clinical Disease	✗	No information
Pullorum disease	✓	Clinical Disease	✗	No information
Rabies	✓	Clinical Disease	✓	Ethiopian wolf
Sheep pox and goat pox	✓	Clinical Disease	✗	No information
Surra (<i>Trypanosoma evansi</i>)	✗	Clinical Disease	✗	No information
Trichomonosis	✗	Suspected	✗	No information
Trypanosomosis	✓	Clinical Disease	✗	Suspected

II.4 Organisation of the evaluation

II.4.A Timetable of the mission

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

The map in Appendix 5 indicates the travel undertaken by the assessors.

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

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

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

Table 5: Site sampling	Terminology or names used in the country	Number of sites	“Ideal” sampling	Actual sampling
GEOGRAPHICAL ZONES OF THE COUNTRY				
Climatic zone	<i>Monsoonal : cool highlands, hot lowlands</i>	2	2	2
Topographical zone	<i>Highlands and Lowlands</i>	2	2	2
Agro-ecological zone	<i>Ethiopian Xeric grasslands and shrublands, highlands, Danakil Depression (desert plains)</i>	3	2	2
ADMINISTRATIVE ORGANISATION OF THE COUNTRY				
1st administrative level	<i>Federal</i>	1	1	1
2nd administrative level	<i>Regional</i>	9	5	7
3rd administrative level	<i>Zonal</i>	68	1 ³	3
4th administrative level	<i>Woreda (main) animal health offices</i>	550	10	9 AH offices / clinics
Urban entities	Chartered cities	2		-
VETERINARY SERVICES ORGANISATION AND STRUCTURE				
Central (Federal/National) VS	APHRD/NAHDIC/NVI	1	1	1
Internal division of the central VS	Case teams	5	5	5
1 st level of the VS	Regional Livestock Bureaus (some variations to name)	9	5	7
2 nd level of the VS	Zonal AH office	68	6	3
3 rd level of the VS	Woreda AH office	550	6	9 AH offices
Veterinary organisations (VSB, unions...)	Ethiopian Veterinary Association	1	1	1
FIELD ANIMAL HEALTH NETWORK				
Field level of the VS (animal health)	Animal Health Clinics/Posts, Veterinary paraprofessionals	?	?	9 AH clinics, 2 AH posts,
Private veterinary sector	Private vets	?	?	2
Other sites (dip tanks, crush pens....)		0	0	0
VETERINARY MEDICINES & BIOLOGICALS				
Production sector	National Veterinary Institute	1	1	1
Import and wholesale sector	Vet Drug Importers	10	3	1
Retail sector	Drug Stores	?	5	5
Other partners involved	Drug Administration and Control Authority (DACA)	1	1	0
VETERINARY LABORATORIES				
National labs	National Animal Health and Disease Investigation Centre, National Veterinary Institute	1	1	1
Regional and local labs	Regional Vet Labs	13	4	4
Associated, accredited and other labs	National Rabies lab	1	1	1
ANIMAL AND ANIMAL PRODUCTS MOVEMENT CONTROL				
Bordering countries	Kenya, Somalia, Somaliland, Djibouti, Eritrea, Sudan	5	3	0
Airports and ports border posts	Bole International Airport	2	1	1
Main terrestrial border posts ⁴		12	2	0
Minor terrestrial border posts		?	?	0
Quarantine stations for import		0	0	0

³ After discussions with APHRD it was agreed that Zones as an administrative level play a smaller role in animal health relative to Regions and Woredas and that it was not worth visiting as many of them.

⁴ Travel times to and security situations around some border areas made visiting terrestrial border posts during the visit either impractical or unsafe.

Internal check points		0	0	0
Live animal markets		?	2	1
Zones, compartments, export quarantines	Export quarantine offices	5	3	2 offices, 1 station (under constructi on)
PUBLIC HEALTH INSPECTION OF ANIMALS AND ANIMAL PRODUCTS				
Export slaughterhouse		8	4	4
National market slaughterhouses		?	?	2
Local market slaughterhouse		?	?	1
Slaughter areas/slabs/points		?	?	-
On farm or butcher's slaughtering sites		?	?	-
Processing sites (milk, meat, eggs, etc)		?	?	2 tanneries, 1 meat processin g
Retail outlets (butchers, shops, restaurants)		?	?	-
TRAINING AND RESEARCH ORGANISATIONS				
Veterinary university	Veterinary Faculties	8	4	5
Veterinary paraprofessional schools	Alage TVET	1	1	1
Farmer Training Centres	FTCs	?	1	1
Veterinary research organisations	Artificial Insemination Centre, Tse tse fly sterilisation centre, EDMTI	3	3	3
Multiplication/Genetic Improvement Centres	Poultry, Dairy	?	?	3
STAKEHOLDERS' ORGANISATIONS				
Agricultural Chamber / organisation		?	?	-
National livestock farmers organisations		?	?	-
Local livestock farmers organisations	Farmer Unions and Cooperatives	?	?	-
Other stakeholder organisations	Live Traders, Meat Exporters	2	2	2
Consumer organisations		?	?	-

PART III: RESULTS OF THE EVALUATION & GENERAL RECOMMENDATIONS

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

FUNDAMENTAL COMPONENTS

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

Veterinary services are recognised by the international community and by OIE Members as a '**global public good**'. Accordingly, it is essential that each country acknowledges the importance of the role and responsibilities of its veterinary services and gives them the human and financial resources needed to fulfil their responsibilities.

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

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

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

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

Critical competencies:

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

Terrestrial Code References:

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

Article 3.2.2. on Scope.

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

Point 2 of Article 3.2.4. on Evaluation criteria for quality system: "Where the Veterinary Services undergoing evaluation... than on the resource and infrastructural components of the services".

Article 3.2.5. on Evaluation criteria for human resources.

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

Points 3 and Sub-point d) of Point 4 of Article 3.2.10. on Performance assessment and audit programmes:

Compliance / In-Service training and development programme for staff.

Article 3.2.12. on Evaluation of the veterinary statutory body.

Points 1-5 and 9 of Article 3.2.14. on Organisation and structure of Veterinary Services / National information on human resources / Financial management information / Administration details / Laboratory services / Performance assessment and audit programmes.

I-1. Professional and technical staffing of the Veterinary Services <i>The appropriate staffing of the VS to allow for veterinary and technical functions to be undertaken efficiently and effectively.</i> A. Veterinary and other professionals (university qualification)	Levels of advancement
	1. The majority of veterinary and other professional positions are not occupied by appropriately qualified personnel.
	2. The majority of veterinary and other professional positions are occupied by appropriately qualified personnel at central and state / provincial levels.
	3. The majority of veterinary and other professional positions are occupied by appropriately qualified personnel at local (field) 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.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): SJS1, SJM1, SJM10, P1160896-898

Findings:

Veterinary staffing at the central and regional VS level (APHRD, NVI, NAHDIC, regional bureaus and labs) seems adequate with a reasonable proportion of staff with a Doctor of Veterinary Medicine (DVM) degree, and a few with postgraduate qualifications. For example, in APHRD (excluding NAHDIC) there are 29 veterinarians and 48 veterinary paraprofessionals and other staff.

Field veterinary staffing at woreda and sub-woreda levels is variable. Level 3 for this competency requires that a majority of local (field) positions are occupied by appropriately qualified personnel. A quick calculation across regions indicate that approximately 50-60% of woredas have at least one qualified veterinarian working in the woreda animal health clinic. However, this represents only a small proportion of all field staff as woreda field services are also provided by a team of Animal Health Assistants who may work independently from the clinic in separate Animal Health Posts. Fortunately the proportion of field staff with veterinary qualifications is set to increase rapidly with the very large increase in veterinary training (see next Critical Competency – CCI.2A).

Improved HR planning is also required under this CC. Policies for merit based recruitment, utilising detailed job descriptions, and individual performance evaluation and work planning were very rarely seen despite requests (one regional laboratory provided detailed job descriptions for each of its staff members)

Strengths:

- Adequate veterinary professional staffing at central, regional and zonal levels. A reasonable proportion of field staff are veterinarians, but it is significantly lower than a majority.
- A large number of veterinarians coming through due to rapid expansion of veterinary teaching (from 1 faculty to 8 faculties over the last 9-10 years)
- VSB not yet formed, but legislation has been developed and is before the Council of Ministers.

Weaknesses:

- No VSB so no registration of veterinarians who have achieved standards of competence.
- Some evidence of brain drain such as from university post graduate students trained overseas who fail to return and with high level staff to IOs or NGOs (e.g. ex CVOs).

- Attracting veterinarians to more remote areas is difficult due to their mobility. This issue is offset by the recruitment system for veterinary para-professionals (see next section)

Recommendations

- Establish VSB and register all working veterinarians as soon as possible
- Improve veterinary recruitment with formalised protocols
- Improve staff evaluation and merit based promotion
- Undertake PVS Gap Analysis to assist with matching supply of veterinary graduates with demand across the country (i.e. a PVS Gap Analysis tool can be utilised to do this)
- Transition to private supply of field VS, and consider policies such increasing cost recovery by government vets and/or official delegation to private veterinarians

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

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1160297- 335, SJS3, SJM10, SJM1, SJS4

Findings:

There is adequate staffing with veterinary paraprofessionals at central, regional and field levels. At woreda level animal health is delivered by either a veterinarian or a veterinary para-professional in an animal health clinic, supported by a team of veterinary para-professionals or animal health assistants that may be stationed in surrounding animal health posts. Where a veterinarian exists in (the slight majority of) woreda clinics, the veterinary para-professional staff underneath him or her would have regular contact in terms of disease and activity reporting, accessing drugs and implementing programmes and therefore should be under effective veterinary supervision, hence the attainment of level 4 for this CC. This would not be the case in those woredas that lack a qualified veterinarian.

Recruitment of veterinary para-professionals is based on staffing demand and identified positions by woreda. The Alage Technical and Vocational Education and Training (TVET) college is a very large institution which has sole responsibility for training veterinary para-professionals in Ethiopia. Woreda animal health offices report staffing needs to their regional bureaus who apply to the Alage TVET project office for recruitment based on these needs. Recruitment is then carried out in that woreda with the identified government position(s) in the successful candidate's home woreda guaranteed upon their passing of the three year course. Such students are required to return to this position for a period of at least two years after graduation. Such a system ensures that veterinary para-professionals are distributed based on geographical need and covering the full territory, and is a further justification for the high level 4 CC result. Nearly 5,000 students are currently being trained by Alage TVET in the three year veterinary para-professional course.

The government has a stated target of having one animal health post (staffed by a veterinary para-professional –under veterinary professional supervision) for every three peasant associations (PAs – the lowest administrative level) and veterinary para-professional enrolment at TVET has grown rapidly as a result. A PVS Gap Analysis mission can help determine if targeted numbers of vets and veterinary para-professionals in the animal health field network is appropriate, based on factors such as livestock numbers, geography/accessibility, animal health programmes and economic sustainability.

In the very remote pastoral regions of the country there is a greater reliance on community animal health workers (CAHWs) who have received significantly less training and live and move as part of the mostly nomadic pastoralist communities. As more animal health posts are created and veterinary para-professionals are stationed out into these regions their working interaction with CAHWs will need to be properly defined-ideally within a VSB defined legal framework. If practical, it is possible that performance selected CAHWs could be provided an opportunity to undergo further training at Alage TVET to attain recognition as veterinary paraprofessionals.

Strengths:

- Veterinary para-professional training expanding.
- Targeted enrolment and recruitment of veterinary para-professionals based on woreda needs provides both required geographical coverage and employment security.
- Where veterinarians exist in woredas they would provide regular contact and supervision of veterinary para-professionals.

Weaknesses:

- No registration or standardisation of veterinary para-professionals.
- Continued expansion of veterinary para-professional training may overwhelm training capacity of Alage TVET in terms of staffing, infrastructure and equipment.
- Lack of clarity between a stated policy on private provision of VS and veterinary para-professional services and the expanding government field VS network.

Recommendations:

- Ensure that funding of Alage TVET matches the increasing demands placed on it in terms of the quantity and quality of the veterinary para-professional training it delivers.
- Manage the interaction of existing CAHWs and the expanding network of veterinarians and veterinary para-professionals, within a VSB defined legal framework to ensure that the quality of VS delivery is progressively improved whilst maintaining CAHWs where needed and performing VSB defined tasks i.e. as vaccinators.)
- Undertake a PVS Gap Analysis, part of which involves calculating veterinary and veterinary para-professional staffing needs in the country, to inform education and training plans.

I-2. Competencies of veterinarians and veterinary para-professionals <i>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 positions⁵.</i>	Levels of advancement
	1. The veterinarians' practices, knowledge and attitudes are of a variable standard that usually allow for elementary clinical and administrative activities of the VS.
	2. The veterinarians' practices, knowledge and attitudes are of a uniform standard that usually allow for accurate and appropriate clinical and administrative activities of the VS.
	3. The veterinarians' practices, knowledge and attitudes usually allow undertaking all professional/technical activities of the VS (e.g. epidemiological surveillance, early warning, public health, etc.).
	4. The veterinarians' practices, knowledge and attitudes usually allow undertaking specialized activities as may be needed by the VS.
A. Professional competencies of veterinarians	5. The veterinarians' practices, knowledge and attitudes are subject to regular updating, or international harmonisation, or evaluation.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): SJM1, SJM10, P1160418- 44, SJS5, P1140920-25, P1140926-27, P1140929, P1140930, P1140967.

Findings:

There are currently nine veterinary schools distributed across the country, representing a significant increase in teaching capacity from the single vet school in existence some 9-10 years ago. Educational standards are variable, especially between the established and the newer veterinary schools. Efforts have been undertaken to better standardise teaching including through harmonising curricula and ad hoc meetings of Deans.

Technical knowledge at the central administrative level seems predominantly focused on export quarantine and inspection for both live animals and animal products. The Disease Risk Analysis or Epidemiology case team is small compared to the other teams devoted to exports. Technical knowledge and expertise as it relates to the national disease situation and field activity resides mostly in NAHDIC and the regional laboratories, who are also involved in outbreak investigations and sampling, as well as laboratory diagnosis.

Field veterinarians (interacting with farmers) need more training in field outbreak investigations to improve their confidence and independence. During the mission, a disease investigation for sudden death in cattle took place across several woredas. It required involvement of senior NAHDIC and regional laboratory staff who were interviewed on their way to undertake field visits and sampling for suspect anthrax or anaplasmosis. It was reported later that a diagnosis of metabolic acidosis or bloat was made.

It was also reported that blood (serum) and tissue (swab) sampling was only undertaken by regional laboratory staff as woreda staff were not trained to do these. Capacity building of woreda field staff in basic disease investigation and sampling could reduce dependence on regional laboratory staff in terms of their transport and time, and provide the regional staff with a greater number of samples for dedicated diagnostic testing within laboratories. Regional laboratory staff should be involved in the training of field staff to this end. With the greater number of qualified veterinarians and veterinary para-professionals in the field resulting from expanded training in the coming years, field capacities should be improved.

Strengths:

- Rapid expansion of veterinary teaching nationally
- Harmonised curricula
- Ad hoc meetings between Deans (such as to harmonise curricula)
- Some veterinary faculties have good international linkages and student opportunities

⁵ Not all professional positions require an academic degree. Nonetheless, the proportion of academic degrees serves as an indicator of professional quality of the VS.

- A host of National Disease Control (FMD, HPAI, CBPP, Gumboro, RVF) and Quarantine and Inspection (SPS LMM phases I & II, ante mortem and post mortem inspection, building, animal handling, HACCP) Strategy, Protocol and SOP documents produced by the Central VS to a very high technical level are published and available for use.

Weaknesses:

- Inconsistent standards across veterinary teaching in the country (among the 9 faculties)
- No VSB
- No formal meetings between Faculties (Deans)
- Field staff technical capacity could be stronger, with reference to both basic disease investigations and sampling.
- Some concern that oversupply of veterinary graduates may saturate the job market and salaries will be reduced

Recommendations:

- Capacity building of field veterinary staff in disease investigation and sampling.
- Undertake PVS Gap Analysis to assist with matching supply of veterinary graduates across the country with demand
- Establish, with rotating Chair, a Veterinary Dean's Forum or likewise that meets regularly Establish a VSB as soon as possible.
- Introduce some form of international benchmarking for undergraduate veterinary education (e.g. review of curricula/standards by a retired Dean from an internationally respected faculty)

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

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): SJS3, P1160297- 335, SJM20, SJM21, SJM22, SJM23, P1160615-620, P1160641- 646, HJS13, HJS14, HJS15.

Findings:

With only one school for veterinary para-professionals, the three year training undertaken is of a uniform standard. This includes one year's practical field training on worksites. Teaching staff at the TVET school include 7 Masters, 42 Veterinary, and 49 Bachelor of Science degree holders, out of a total of 159 teaching staff. A VSB should also consider standards of veterinary para-professional training and practice within its mandate. The examples provided in 1.2A relating to a need to improve field capacity for basic disease investigation and sampling also apply to veterinary para-professionals, especially in those woredas where no veterinarians are working.

Strengths:

- One veterinary para-professional school providing a uniform standard of teaching.
- Reasonably good qualifications of teaching staff.
- Good practical demonstration capability at Alage TVET, including a basic veterinary laboratory, model slaughterhouse, milk processing facility, and cattle, shoats, poultry, pig and camel farms

Weaknesses:

- Lack of budget for expanded teaching
- Staff turnover
- Lack of budget for practical assessment in the field

Recommendations:

- Capacity building of field veterinary para-professional staff in disease investigation and sampling.
- Establish a VSB as soon as possible that also registers veterinary para-professionals and sets standards for their education and practice.
- Continue to improve the standard of CAHWs in remote areas and consider offering them scholarships to undergo training at Alage TVET in order for them to be recognized as veterinary para-professionals

I-3. Continuing education (CE) ⁶	Levels of advancement
<i>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.</i>	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.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): HJS5 - HJS7, SJM1b, SJM1e, SJM2, SJM10, SJM22, P1160563-567, 579-614, P1160641- 646, P1160899- 900, P1160903- 904, SJS4, P1140861, P1140862, P1140904, P1140931-33, P1160127-137

Findings:

Continuing education is a strength of the Ethiopian Veterinary Services. There is a good interrelationship between the different levels of the VS based around the provision of training, especially amongst the central and regional laboratories and the field clinics. Although lacking as a formal requirement, training seems widely and regularly available and is well planned and organised, incorporating feedback on needs. Good training materials are available in the form of Strategy, Protocol and SOP documents produced by the Central VS which are published and available for use. These are prepared to a high technical standard and target:

- National Disease Control/Response (FMD, HPAI, CBPP, Gumboro, RVF),
- Laboratory Diagnosis (virology, serology, bacteriology, parasitology, haematology) and
- Quarantine and Inspection (SPS LMM two phase, antemortem and postmortem inspection, building design, animal handling, HACCP principles),

Strengths:

- Continuing education is broadly available to staff and is well planned.
- Solid teaching materials and baseline documentation is readily available.
- Feedback is incorporated in the planning and development of training.

Weaknesses:

- Veterinary and veterinary para-professional educational institutions could be more involved in continuing education, both with expanded delivery of post graduate degrees and in the delivery of short courses such as on meat inspection.

Recommendations:

- Provide more funding to educational institutions for the delivery of continuing education, both in the form of scholarships or programmes for VS staff to gain postgraduate qualifications and for educational institutions to deliver short courses to staff.
- Provide a reward system for Continuing Education to professionals and para-professionals.
- Consider making some levels of Continuing Education a mandatory requirement for the VS.

⁶ Continuing education includes Continuous Professional Development (CPD) for veterinary, professional and technical personnel.

I-4. Technical independence	Levels of advancement
<i>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).</i>	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 based only on scientific evidence and are not changed to meet non-scientific considerations.
	5. The technical decisions are made and implemented in full accordance with the country's OIE obligations (and with the country's WTO SPS Agreement obligations where applicable).

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6):

NOTE - Given the sensitive nature of this CC and its supporting information, such as on salaries and the holding of secondary jobs, evidence was only gathered through interviews with relevant VS staff members throughout the mission.

Findings:

Technical independence of the VS seems adequate at all levels with decisions based on scientific evidence. Remuneration seems generally adequate and at field level was reported as being relatively strong compared to other government positions in the field, at 2000-2500 *birr* per month. There was no evidence of staff being required to take secondary positions to supplement their income, reducing the likelihood of conflicts of interest. Quarantine officers and meat inspectors appear to conduct their duties based on science and without favour, as evidenced by records of inspections of all relevant premises and carcasses and organ condemnations in slaughterhouses. This is further supported by successful audits as carried out by importing countries. It was reported that the regaining of market access to Saudi Arabia following the Somali Rift Valley Fever outbreak was supported by a risk based surveillance programme in relevant border areas that was transparently reported.

Technical independence could be further enhanced by strengthening the technical chain of command to counter local political interference with scientific decision making in animal health, such as relating to the purchase of vaccine. In addition, policies and protocols for recruitment and career progression need to be articulated in documents to ensure all HR decisions are strictly in accordance with merit. Salaries for the higher levels of the VS appear to be too low as two recent Chief Veterinary Officers have been lost to higher paid international veterinary projects.

Strengths:

- Adequate remuneration
- Little if any secondary jobs taken by staff
- Inspection records and audits of quarantine and meat inspection staff
- History of science based animal health decision making

Weaknesses:

- Local political autonomy (regional and woreda) which may compromise a technically independent chain of command e.g. where VS are not a political priority.
- Staff recruitment and career progression not supported by documented merit based policies and protocols (such documents were requested but not provided)

Recommendations:

- Strengthen the VS technical chain of command, such as is being piloted in the Oromia Region.
- Document and implement merit based recruitment policies and protocols.
- Improve the salaries for the higher echelons of the VS and consider the institution of performance bonuses as an incentive for staff at all levels.

I-5. Stability of structures and sustainability of policies <i>The capability of the VS structure and/or leadership to implement and sustain policies over time.</i>	Levels of advancement
	1. Substantial changes to the organisational structure and/or leadership of the public sector of the VS frequently occur (e.g. annually) resulting in lack of sustainability of policies.
	2. The organisational structure and/or leadership of the public sector of the VS is substantially changed each time there is a change in the political leadership and this has negative effects on sustainability of policies.
	3. Significant changes to the organisational structure and/or leadership of the public sector of the VS occur rarely, but this stability does not have a positive impact on the sustainability of policies.
	4. Some changes occur in the organisational structure and/or leadership of the public sector of the VS following a change in the political leadership, but these have little or no negative effect on sustainability of policies.
	5. The organisational structure and leadership of the public sector of the VS are generally stable. Modifications are based on an evaluation process, with positive effect on the sustainability of policies.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6):

NOTE - Given the sensitive nature of this CC and its supporting information, such as on staff and leadership turnover and political environment, evidence was gathered through interviews with relevant VS staff members throughout the mission.

Findings:

The Ethiopian VS seems relatively stable and its policies sustainable. CVOs have been well qualified technically and have not undergone a significantly high turnover. A political change (e.g. Minister) or change in CVO does not result in wholesale changes to other senior staff in the VS. The current CVO is exiting to an international position and there is no evidence that the policies and programmes he has pursued vigorously over the previous three years will be changed significantly. Another ex-CVO maintains a close involvement with APHRD but via the USAID funded SPS-LMM programme.

Strengths:

- Relatively stable government and sustainable VS policies
- Relatively stable, highly qualified VS leadership

Weaknesses:

- Recent VS leadership changes as a result of brain drain to international projects.

Recommendations:

- Improve the salaries of high performing senior staff possibly through task related supplementary payments.

I-6. Coordination capability of the VS	Levels of advancement
A. Internal coordination (chain of command) <i>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 (CVO), to the field level of the VS 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 programs).</i>	1. There is no formal internal coordination and the chain of command is not clear.
	2. There are internal coordination mechanisms for some activities but the chain of command is not clear.
	3. There are internal coordination mechanisms and a clear and effective chain of command for some activities.
	4. There are internal coordination mechanisms and a clear and effective chain of command at the national level for most activities.
	5. There are internal coordination mechanisms and a clear and effective chain of command for all activities and these are periodically reviewed/audited and updated.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1140836, SJS6, SJS2, SJS1, HJS32, HJS3, HJS2, P1160647- 653, P1160383- 91, P1160140-41, SJM24, SJM18, SJM10, SJM5, SJM4.

Findings:

Internal coordination is functional in the absence of a clear legislatively or financially derived chain of command between the decentralised VS levels. Coordination relies instead on strong networks, policies and communications between central, regional and woreda VS offices (directorates/agencies/bureaus/offices), which play a policy/administrative role, and the different levels of laboratories/clinics, which play a technical role (laboratory and field activities). An attempt to more formally define roles and responsibilities has been made with signed MoUs between the central and regional offices and the central and regional laboratories. Regular meetings with minutes, training workshops and multiple policy/strategy documents targeting priority diseases are of good quality, are broadly distributed and are also designed to align animal health efforts nationally. These usefully coordinate activity but fall short of a legislated chain of command. In terms of general VS activities, there is still the risk of political influence on the VS at each of the autonomous administrative levels, such as with the inadequate purchase of vaccine by woreda administrations where livestock health may not be seen as a priority or where the veterinary presence is weak.

Emergency provisions for more direct command structures are included in legislation, but relevant legislation grants overall authority at central or regional level. i.e. *Legislation proclamation 267/2002 “For the prevention and control of animal diseases”*.

Part One, Article 15 – Animal Health Officer (who is responsible for responding to the animal health emergency) means an animal health professional assigned by the Ministry or by the Regional Governments to control animal diseases.

Further clarity is required for singular chain of command authority during an animal health emergency. Most countries legislation will have responsibility for such an emergency response lie singularly with the national CVO creating a clear technical chain of command at national level.

Chain of command arrangements for field activities relating to live animal and meat exports are clear, short and effective, with field APHRD staff directly answerable to the CVO, stationed both within quarantine offices (inspecting and certifying live exports) and within export slaughterhouses (inspecting and certifying meat for export).

Both APHRD and the regions generally combine regulatory biosecurity functions for animals and plants, a structure reportedly based on the United States system. However, the Oromia region is currently piloting a new structure with the creation of a dedicated, independent high level Livestock Development and Animal Health Agency, separate from plants. This is seen to

have improved technical independence and chain of command arrangements for the VS which are stronger and better organised in this region. For example, monthly disease reporting rates from woredas are highest from Oromia. The impact of this apparently successful system should be officially evaluated, to verify its performance in comparison to conventional AH/PH systems. If so verified, and given the importance of livestock health and production to Ethiopia, expansion of this model to other regions and nationally should be actively considered.

Strengths:

- MoUs to clarify roles and responsibilities between national and regional administrative (APHRD and regional bureaus) and technical (NAHDIC and regional labs) VS levels.
- Production of a national strategy for VS, as well as good quality technical disease control strategies, lab SOPs and quarantine and inspection SOPs at national level help align efforts at all levels.
- Meetings are held between the different VS levels

Weaknesses:

- Decentralised VS system could be subject to political influence, inconsistencies and delayed decision making at local levels.
- Legislation for emergency response lacks singular chain of command provision.
- Meetings between VS levels seem ad hoc and could become more formalised in terms of planning and results.
- APHRD efforts at promoting exports via feedlots, quarantine offices/stations and slaughterhouses seems artificially removed from the field surveillance and disease control activities conducted by regions and woredas.

Recommendations:

- APHRD to explore improved chain of command legislative and/or financial provisions citing animal health as a special case requiring immediate and decisive actions such as for livestock disease or food safety emergencies.
- Legislation to be amended to provide singular authority (no central or regional) and thus a clear chain of command for emergency response.
- APHRD to play a stronger coordination and leadership role with regions in VS aspects such as surveillance, vaccination, disease control, and domestic slaughterhouses to properly link central to field and promote/improve national consistency and the link between field activity and export facilitation.
- Regular formal meetings between chiefs of animal health nationally and regionally whereby agendas and recommendations on key animal health policies are agreed and committed to by all parties to better align activity.
- The successful trial of having a dedicated Livestock and Animal Health Agency in Oromia to be independently verified and if confirmed this more concentrated structure to be rolled out to other regions and nationally.

B. External coordination	Levels of advancement
<i>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 programs). Relevant authorities include other ministries and competent authorities, national agencies and decentralised institutions.</i>	1. There is no external coordination.
	2. There are informal external coordination mechanisms for some activities, but the procedures are not clear and/or external coordination occurs irregularly.
	3. There are formal external coordination mechanisms with clearly described procedures or agreements for some activities and/or sectors.
	4. There are formal external coordination mechanisms with clearly described procedures or agreements at the national level for most activities, and these are uniformly implemented throughout the country.
	5. There are national external coordination mechanisms for all activities and these are periodically reviewed and updated.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1170025, P1170023-24, P1170021-22, P1160114-118, P1140916-19, SWA-2, SWA-5, SJM10, SJM6-8.

Findings:

External coordination for zoonoses is strong via a National Council on Zoonoses (previously HPAI) Council jointly chaired by APHRD and the equivalent human health agency under the Ministry of Health, with active Chair depending on the nature of the disease. There are reports of veterinary laboratories such as NVI being involved in diagnosing zoonotic diseases in humans where human health labs did not have the capacity.

A National Livestock Working Group advises government of policy issues relating to livestock development and health in the country and ensures harmonisation of various livestock interventions by government and external animal health partners. Members include FAO, European Union, World Bank, USAID, a number of USAID funded livestock projects and other stakeholders.

There are good linkages with the National Chambers of Commerce in relation to live exports and the meat export trade, which have helped the VS promote these activities as a political priority.

There are good linkages and collaboration, especially from NAHDIC with the Ethiopian Wildlife Conservation Authority where animal health interests align, such as with HPAI wild bird testing and studies on rabies impacts on Ethiopian wolves.

A government led Animal Welfare Working Group includes in its membership representatives from relevant animal welfare NGOs, such as Brooke Foundation.

There seems to be poorer coordination with human health agencies in relation to food product safety and traceability regulations.

Strengths:

- National Council of Zoonoses formed
- Livestock Working Group in operation
- Animal Welfare Working Group formed
- Linkages with national Chambers of Commerce relating to livestock and livestock product exports exist.
- Linkages with wildlife conservation agency, such as around wild bird sampling for HPAI and rabies in Ethiopian wolves.

Weaknesses:

- Seemingly poor coordination with relevant human health agencies on food product safety, including milk and residues
- Poor coordination with relevant human health agencies in relation to the smooth transition of regulatory responsibilities for veterinary drugs

Recommendations:

- Engage with the relevant human health agencies on food product safety with regards to harmonization of methodologies for testing, exchange of data (information), and procedures for chemical and biological residues testing for food safety.
- Expedite actions to ensure full responsibilities for veterinary drugs regulation implementation.

I-7. Physical resources <i>The access of the VS to relevant physical resources including buildings, transport telecommunications, cold chain, and other relevant equipment (e.g. computers).</i>	Levels of advancement
	1. The VS have no or unsuitable physical resources at almost all levels, and maintenance of existing infrastructure is poor or non-existent.
	2. The VS have suitable physical resources at national (central) level and at some regional levels, and maintenance and replacement of obsolete items occurs only occasionally.
	3. The VS have suitable physical resources at national, regional and some local levels and maintenance and replacement of obsolete items occurs only occasionally.
	4. The VS have suitable physical resources at all levels and these are regularly maintained.
	5. The VS have suitable physical resources at all levels (national, sub-national and local levels) and these are regularly maintained and updated as more advanced and sophisticated items become available.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6):

NOTE - There is a large body of evidence gathered during this PVS mission relating to this CC. In particular, the PVS team took hundreds of photos of buildings, office spaces, furniture, vehicles, IT equipment, laboratory equipment, vet clinic equipment, drug supplies, tsetsefly rearing facilities, demonstration farms, genetic multiplication farms etc that are too numerous to list here. Appendix 6 provides a full list of all the relevant pieces of evidence, as stored by both team members and OIE HQ.

Findings:

Physical resources are adequate for VS although some buildings are badly in need of replacement or urgent renovation. Veterinary administrative offices are of good construction, well furnished and were generally well equipped with telecommunications. IT availability and internet connections are weak outside of Addis Ababa. Laboratories seem generally well equipped in terms of buildings and equipment, including the BSL2+ laboratory within NAHDIC. Attention will be needed to the sustainability and volume of services such as with ongoing equipment and vehicle maintenance, reagent costs and technological upgrades. Animal health clinics were seen to be functionally equipped, inclusive of fridges, semen storage/freezing facilities, basic laboratory equipment, drugs and related materials.

More field animal health clinics and posts are being built as the government moves towards its target of one animal health facility per three PAs. In Oromia, 863 animal health clinics/posts were standing in 2008/9, 990 in 2009/10, and 1,131 in 2010/11.

Strengths:

- Generally acceptable buildings and infrastructure at all levels of the VS
- Good levels of laboratory equipment
- New laboratories (food safety/drugs) and quarantine stations are being built

Weaknesses:

- A few VS physical resources are in need of maintenance/sale/replacement including old, unserviceable vehicles at regional laboratories and a few woreda clinics and animal health posts.
- IT equipment and internet connections outside of Addis Ababa are weak

Recommendations:

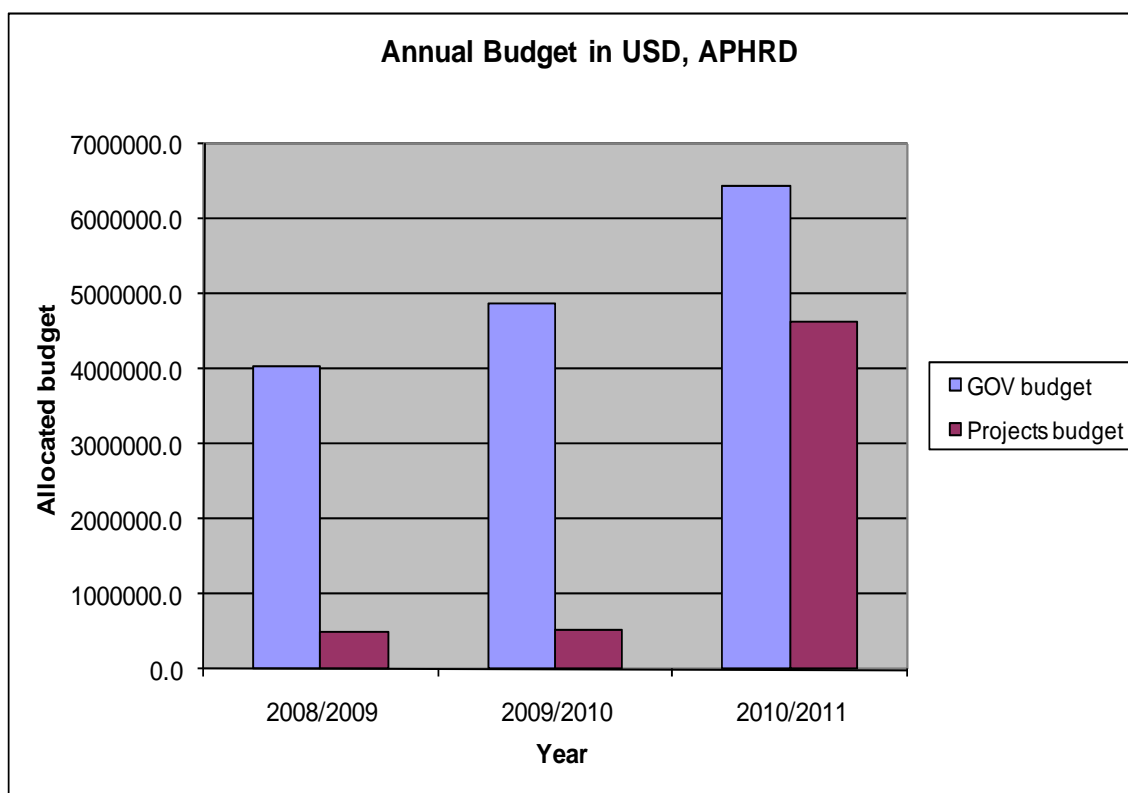
- Evaluate older woreda clinics and animal health posts to attend to maintenance, renovation and/or replacement needs.
- Improve regional and woreda IT infrastructure where feasible
- Sell unserviceable or repair habitable vehicles from old projects within regional laboratories.

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

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1160902, P1161007-009, HJS4, HJS30, HJS31, SJS1, SJM1.

Findings:



The diagram above shows APHRD's allocated budget in US dollars, and is taken from the APHRD presentation made during the opening meeting. Note it does not include monies at regional, zonal or woreda VS levels which were difficult to attain due to the decentralised structure of the Ethiopian VS. It shows a government budget for 2010/11 of approximately US\$6.4 million, which represents an increase of more than US\$1 million from the previous year, 2009/10, which itself represents an increase of nearly US\$1 million from 2008/9. The accompanying projects budget (assumably from donor and agency funding) also increased markedly in 2010/11 to approximately US\$4.6 million. The budgets at regional level were also reported as having risen rapidly in recent years e.g. Oromia, SNNP.

Based on interviews, observations and documentation during the PVS evaluation mission, these funding levels seem adequate in terms of salaries, transport, vaccination, laboratory costs, and other relevant operating costs at central and regional levels. Expanded operations

are being rolled out in terms of new APHRD export quarantine stations, laboratories (food safety and residues) and new regulatory responsibility for veterinary drugs. Revolving fund mechanisms at woreda level for drug and vaccine purchase operate to assist with maintaining supplies in a sustainable manner, as does cost recovery policies for clinical services and vaccination against non-TADs (List B diseases). NVI operates at almost full cost recovery.

Operational funding at relevant educational institutions was described as being inadequate.

Strengths:

- Greatly increased operational funding availability over recent years, seemingly at all levels of the VS, aligned with the recognition of livestock as a high political priority in Ethiopia.
- Funding for expanded operations including for export quarantine, food safety and residue laboratory testing, and veterinary drug regulations
- Revolving fund mechanisms for drugs and vaccines operating at woreda level to improve funding sustainability.

Weaknesses:

- Operational funding at Veterinary Faculties and Alage TVET described as inadequate for their rapidly expanding teaching requirements.

Recommendations:

- Improve operational funding at Vet Faculties and Alage TVET in line with increased demands on them for the quantity and quality of veterinary and veterinary para-professional teaching.
- Increase cost recovery where possible, such as for field services, in export quarantine or for the lab services of NAHDIC (NVI “model”)
- Utilise the PVS Pathway and strategic planning to advocate with decision makers for ongoing funding to improve the Ethiopian VS, centred around an evidence based and costed plan.

I-9. Emergency funding	Levels of advancement
<p><i>The capability of the VS to access extraordinary financial resources in order to respond to emergency situations or 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.</i></p>	1. No contingency and compensatory funding arrangements exist and there is no provision for emergency financial resources.
	2. Contingency and compensatory funding arrangements with limited resources have been established, but these are inadequate for expected emergency situations (including emerging issues).
	3. Contingency and compensatory funding arrangements with limited resources have been established; additional resources for emergencies may be approved but approval is through a political process.
	4. Contingency and compensatory 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. Contingency and compensatory funding arrangements with adequate resources have been established and their rules of operation documented and agreed with stakeholders.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): SJM10, P1140931-33.

Findings:

APHRD in collaboration with the SPS-LMM Program has prepared a plan entitled “Emergency Preparedness and Response to Minimize the Impacts of Trans-boundary Animal Diseases in Ethiopia”. The document was prepared as part of the overall emergency and response plan of the MoARD against emergencies including TADs, floods, crop pests and forest fires. The plan is aimed at securing government and donor funds for an early warning and predefined effective early response capability. Specific emergency response plans are in place for diseases such as HPAI and RVF. APHRD is now entitled to access emergency funds allocated to MoARD in time of emerging and re-emerging animal diseases of trade and livelihood importance. MoARD emergency funds were accessed in the Harare region to provide feed and water supplies during a recent prolonged drought. None of this is legislated. There are no provisions relating to compensation. Apparently a Maedi-Visna outbreak in 2002 was slaughtered out successfully without the need for compensation.

Strengths:

- A funding mechanism exists for VS, as part of a broader emergency response funding mechanism under MoARD.

Weaknesses:

- Emergency funding provisions do not seem to have yet been legislated.
- There seems to be no provisions for compensation, which is globally proven as a requirement for successful VS early detection and response mechanisms for many key TADs.

Recommendations:

- Include emergency funding provisions within legislation.
- Consider closely the inclusion of compensation mechanisms for certain diseases where slaughter out may be necessary.

I-10. Capital investment	Levels of advancement
<i>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.</i>	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 stakeholders as required.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1160158-71, HJS4, P1170019-20, SJS1, SJM1, P1160902, PWA-45.

Findings:

The Ethiopian VS are building two new quarantine facilities in eastern Ethiopia, and new laboratories for food safety and drugs (residues) are also being built in Kality. More field animal health clinics and animal health posts continue to be built every year at woreda level. The Tsetse fly Rearing and Irradiation Centre was a major item of capital infrastructure and the irradiation equipment is due to be purchased shortly.

A BSL 2+ lab is present at NAHDIC and also represents a recent, large capital investment, albeit with support from International Organisations.

Strengths:

- New labs and quarantine facilities are being built
- More animal health clinics and posts continue to be built to improve the geographical coverage of the animal health network for the purposes of surveillance, vaccination, extension and clinical services.

Recommendations:

- The VS should continue to seek funding for new capital works as the need arises.

I-11. Management of resources and operations	Levels of advancement
<i>The capability of the VS to document and manage their resources and operations in order to analyze, plan and improve both efficiency and effectiveness.</i>	1. The VS have some records or documented procedures, but these do not provide for adequate management of resources and operations.
	2. The VS routinely use records and/or documented procedures in the management of resources and some operations, but these do not provide for adequate management, analysis, control or planning.
	3. The VS have comprehensive records, documentation and management systems and they regularly use records and documented procedures in the management of resources and operations, providing for the control of effectiveness and the conduct of analysis and planning.
	4. The VS have adequate management skills, including the capacity to analyse and improve efficiency and effectiveness.
	5. The VS have fully effective management systems, which are regularly audited and permit a proactive continuous improvement of efficiency and effectiveness.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): SJM10, P1160146, P1160147, P1160148-49, P1160563-567, 579-614, P1160913- 941, PWA-29⁷.

Findings:

VS management systems generally seemed to have benefitted from a nationwide government policy focused on Business Process Re-Engineering, incorporating approaches based on sound planning, efficiency, client (stakeholder) service, transparency and accountability.

The VS have developed a strategic plan (2010 to 2013) based on a PVS self assessment undertaken in 2008.

Data management is being streamlined through an information technology (IT) consultancy commissioned by APHRD, which aims to update the current paper based systems. The consultant has developed an advanced electronic database system (compatible with ARIS II) to collate all animal health information from; the field, all VS levels, laboratories, slaughterhouses, live export quarantine offices and border posts into the one complete animal health information system. This has yet to be rolled out and the real test will be uptake and how successfully this can be implemented. An implementation plan is urgently required. The ultimate test will then be the extent to which such information is analysed and used to feed effectively into ongoing policy and programme development.

Strengths:

- Nation wide policy of Business Process Re-Engineering seems to have had a positive impact on the general management of VS
- A five year VS Strategic plan exists since 2008 based on a PVS self assessment
- New IT database integrates all relevant animal health information

Weaknesses:

- Data collection largely paper based.

Recommendations:

- Urgently develop a costed implementation plan for the new IT animal health information and production database
- Use both this PVS evaluation report, as well as a PVS Gap Analysis process, in the further refinement of the Ethiopian VS five year Strategic Plan.

⁷ this is a small sample of evidence gathered relating to Management (especially data and information management), where paper based reporting documents were generally sighted at all levels of the VS in all bureaus/offices and labs/clinics. Full details can be found in Appendix 6

III.2 Fundamental component II: Technical authority and capability

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

Critical competencies:

Section II-1	Veterinary laboratory diagnosis
Section II-2	Laboratory quality assurance
Section II-3	Risk analysis
Section II-4	Quarantine and border security
Section II-5	Epidemiological surveillance
	A. Passive Epidemiological surveillance
	B. Active Epidemiological surveillance
Section II-6	Early detection and emergency response
Section II-7	Disease prevention, control and eradication
Section II-8	Food safety
	A. Ante and post mortem inspection at abattoirs and associated premises
	B. Inspection of collection, processing and distribution of products of animal origin
Section II-9	Veterinary medicines and biologicals
Section II-10	Residue testing
Section II-11	Emerging issues
Section II-12	Technical innovation
Section II-13	Identification and traceability
	A. Animal identification and movement control
	B. Identification and traceability of products of animal origin
Section II-14	Animal welfare

----- Terrestrial Code References:

Chapter 2.1. on Import risk analysis.

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

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

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

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

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

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

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

Points 2 and 5-7 of Article 3.2.14. on National information on human resources / Laboratory services / Veterinary legislation, regulations and functional capabilities / Animal health and veterinary public health controls.

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

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

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

Chapters 6.6. to 6.10. on Antimicrobial resistance.

Chapter 7.1. Introduction to the recommendations for animal welfare.

Chapter 7.2. Transport of animals by sea.

Chapter 7.3. Transport of animals by land.

Chapter 7.4. Transport of animals by air.

Chapter 7.5. Slaughter of animals.

Chapter 7.6. Killing of animals for disease control purposes.

II-1. Veterinary laboratory diagnosis	Levels of advancement
<i>The authority and capability of the VS to identify and record pathogenic agents, including those relevant for public health that can adversely affect animals and animal products.</i>	1. Disease diagnosis is almost always conducted by clinical means only, with laboratory diagnostic capability being generally unavailable.
	2. For major zoonoses and diseases of national economic importance, the VS have access to and use a laboratory to obtain a correct diagnosis.
	3. For other zoonoses and diseases present in the country, the VS have access to and use a laboratory to obtain a correct diagnosis.
	4. For diseases of zoonotic or economic importance not present in the country, but known to exist in the region and/ or that could enter the country, the VS have access to and use a laboratory to obtain a correct diagnosis.
	5. In the case of new and emerging diseases in the region or world, the VS have access to and use a network of national or international reference laboratories (e.g. an OIE Reference Laboratory) to obtain a correct diagnosis.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): HJS3, P1140839-45, P1140846-49, P1140850-55, P1140875, P1140876-78, P1140879, P1140880-81, P1140882, P1140883, P1140884-88, P1140889-91, P1140892, P1140893-95, P1140896, P1140897, P1140898, P1140899, P1140900, P1140993-994, P1140995-996, P1160116-118, P1160150, P1160563-567, 579-614, P1160884- 894, P1160902, P1160913- 941, SWA-4, PWA-7 - 14, PWA-33, PWA-34, SJM1g, SJM3-4, SJM9, SJM11-13, SJM17.

Findings:

The National Animal Health Diagnostic and Investigation Centre (NAHDIC) is located at Sebata, about 27 km west of the capital city of Addis Ababa. The centre was established in 1995. In 1997, the centre was placed under the Ethiopian Agricultural Research Organization with a specific mandate for Animal Health Research. However in 2006, the centre was moved to Ministry of Agriculture and Rural Development. The diagnostic centre is primarily involved in coordinating national surveillance and diagnostic programs for TADs such as HPAI, RVF, FMD, CBPP, PPR and others. The main diagnostic laboratory NAHDIC is assisted by 15 regional laboratories, for which an MoU has been signed to ensure nationwide coverage for veterinary diagnostic services. Currently NAHDIC is in the process of establishing QMS as required by ISO 17025 standards and relevant SOPs have been developed for this accreditation. SANAS of South Africa has been contracted to facilitate the installation of this system at NAHDIC. Referral diagnostic service is also provided by the NVI (ISO certified) at Debre Zeit. The NAHDIC laboratory is reasonably well equipped through direct government subvention and assistance from international technical agencies. There is a separate Bio-safety level 2+ for HPAI and other TADs diagnosis funded by FAO, USAID and DFID. The laboratory was recognized by the Regional Animal Health Centre-Eastern Africa based in Nairobi-Kenya and the OFFLU laboratory at Padova-Italy as the Regional Reference Centre for the diagnostics of HPAI.

In 2009/10, a total of 14,328 serum samples for RVF, Foot and Mouth Disease, *Peste des Petits Ruminants*, were collected and tested throughout the country. Laboratory Information Management System (LIMS) has been established and operational at NAHDIC using commercial software *labcollect*.

The laboratory has links with OVI of South Africa, IZSve of Padova-Italy, Veterinary Laboratory Agency of UK and IAH of UK.

Rabies diagnosis is done at the Ethiopian Public Health Research Institute-Addis Ababa, which has close technical and professional relations with NAHDIC and regional laboratories.

The NAHDIC laboratory has a stand-by generator to ensure uninterrupted electric power supply.

The 5 of the 13 regional laboratories visited by the team were found to be reasonably well equipped. However, their staff spends a significant amount of time travelling to the field to

conduct disease investigations and undertake tissue and/or serum sampling. If woreda staff could be capacitated to undertake these activities a greater number of samples should be received by the regional labs and their staff should have more time in the laboratories to devote to laboratory testing.

Basic laboratory diagnostic tests such as faecal flotation technique for parasites can be conducted in woreda clinics.

Strengths:

- The NAHDIC is reputed to be a good diagnostic laboratory as indicated by recent recognition as a reference laboratory for HPAI in Eastern Africa by the OFFLU/Regional Animal Health Centre in Nairobi.
- Provides referral services for veterinary diagnostic activities in Ethiopia. Laboratory is well equipped and has qualified staff
- The regional laboratories visited by team are reasonably well equipped and capable.
- Woreda clinics can do very basic laboratory diagnosis

Weaknesses:

- Sampling from the field on the state of TADs in designated parts of the country should be appropriately planned and be systematic
- Regional laboratory staff spend too much time undertaking field activities with woreda staff technically dependent on them.
- Samples difficult to collect from pastoral areas thus may not have fully representative samples for testing. However new lab at Yabelo (Oromia Region) should improve this weakness
- The LIMS data base is yet to be linked with the epidemiological database

Recommendations:

- Funds for recurrent expenditure should be increased to support activities of the laboratories
- Build capacity of field staff to undertake disease investigations and sampling independent of regional laboratory staff (telephone support to be provided after initial training)
- Periodic refresher courses for sample collection and handling especially as it relates to emerging diseases
- Explore the possibility of cost recovery for some aspects of laboratory operations to be determined by the authorities

II-2. Laboratory quality assurance	Levels of advancement
<i>The quality of laboratories (that conduct diagnostic testing or analysis for chemical residues, antimicrobial residues, toxins, or tests for, biological efficacy, etc.) as measured by the use of formal QA systems and participation in relevant proficiency testing programmes.</i>	1. No laboratories used by the public sector VS are using formal QA systems.
	2. Some laboratories used by the public sector VS are using formal QA systems.
	3. All laboratories used by the public sector VS are using formal QA systems.
	4. All the laboratories used by the public sector VS and most or all private laboratories are using formal QA systems.
	5. All the laboratories used by the public sector VS and most or all private laboratories are using formal QA programmes that meet OIE, ISO 17025, or equivalent QA standard guidelines.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1140846-49, P1140850-55, P1140864, P1140865, P1140896, SJM3, SJM4.

Findings:

NAHDIC as a central reference point for laboratory testing has not yet obtained accreditation for any of its diagnostic tests. However, efforts are being made to establish a QMS which is an essential prerequisite for ISO 17025 accreditation. The NVI in Debre Zeit was established in 1964 and has over 47 years experience in the production and distribution of quality veterinary vaccines for both domestic and international markets. The NVI which is ISO 9001 accredited, provides some level of diagnostic support to the National Veterinary Services. NAHDIC collaborates with other institutions e.g. CIRAD in partnership programmes in order to improve proficiency in diagnostic work. Chemical residue testing is currently not being done in any of the laboratories, but planned to start shortly.

No proficiency testing programmes that involve collaboration with external laboratories on accuracy of test results seem to operate in Ethiopia.

Strengths:

- SOPs for tests and working documents essential for ISO and SANAS accreditation had been prepared.
- Partnership programs and consultations with SANAS in progress.

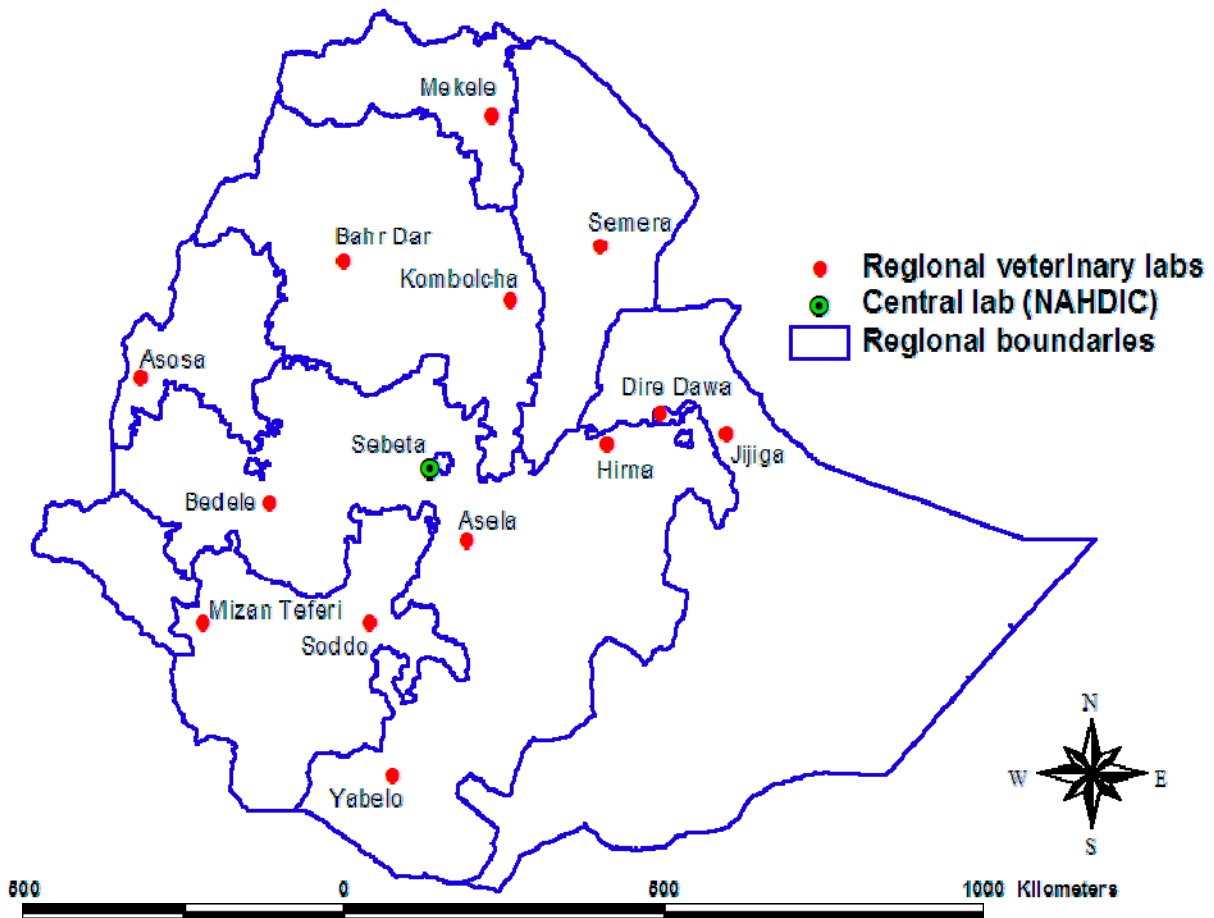
Weaknesses:

- Absence of full ISO and SANAS accreditation for NAHDIC which is required for the export drive for livestock and livestock products
- No proficiency testing programmes that involve collaborations with external laboratories on accuracy of test results, seem to operate in Ethiopia

Recommendations:

- Expedite the accreditation process for laboratory tests and general proficiency especially at NAHDIC and Regional Veterinary Laboratories.
- Initiate proficiency testing for priority diagnostic tests coordinated by NAHDIC and performed by regional labs.
- Participate in any regional or international diagnostic proficiency testing programmes if available.

Central and Regional official veterinary laboratories in the Federal Democratic Republic of Ethiopia



II-3. Risk analysis	Levels of advancement
<i>The authority and capability of the VS to base its risk management decisions on a scientific assessment of the risks.</i>	1. Risk management decisions are not usually supported by scientific risk assessment.
	2. The VS compile and maintain data but do not have the capability to systematically assess risks. Some risk management decisions are based on scientific risk assessment.
	3. The VS can systematically compile and maintain relevant data and carry out risk assessment. Scientific principles and evidence, including risk assessment, generally provide the basis for risk management decisions.
	4. The VS systematically conduct risk assessments in compliance with relevant OIE standards, and base their risk management decisions on the outcomes of these risk assessments.
	5. The VS are consistent in basing sanitary decisions on risk analysis, and in communicating their procedures and outcomes internationally, meeting all their OIE obligations (including WTO SPS Agreement obligations where applicable).

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1140892, P1140899, P1140967, P1160568- 578, SWA-5, PWA-32, SJM7, SJM15.

Findings:

Sanitary export facilitation and certification systems are risk based and have been developed in partnership with SPS-LMM, utilising concepts of commodity based trade and a limited “form” of compartmentalisation, though not strictly based on the OIE definition which may require a stronger consideration and mitigation of source risks at market or on farm. Nevertheless, trading partners have agreed to these measures as being acceptable from a risk perspective for trade of animals and their products into their countries.

Deployment of vaccination on the other hand did not seem to employ disease risk analysis in most cases in Ethiopia. On interview, woreda staff tended to base vaccination decision making on geographical distribution of livestock populations (i.e. achieving a certain % of animals vaccinated in a certain area).. Epidemiological factors, such as livestock movement patterns and/or past exposure and natural immunity should also be incorporated into vaccination decision making.

In Yabelo (Oromia region), a USAID project utilised a participatory epidemiological process with laboratory validation to develop disease risk maps relating to animal disease prevalence and risk of disease spread. It was not known how these maps were utilised in terms of disease control programmes relevant to biosecurity or vaccination. Basic risk analysis processes are known by staff, but the technical subject is not meaningfully institutionalized. Currently no one on the staff has been specifically trained in Risk Analysis.

Strengths:

- The concept of risk analysis is well understood by staff and is included in contingency plans for RVF and FMD
- Sanitary export facilitation and certification systems are risk based and have been accepted by Middle Eastern trading partners.
- Some risk based disease mapping activity has taken place

Weaknesses:

- Vaccination deployment is not based on risk analysis, either by population or geographical risk.
- There is no position or job description dedicated to risk analysis
- No established protocols for risk analysis to underpin risk based decisions in animal disease prevention and control.

Recommendations:

- Recruit or train someone as a Risk Analysis specialist within APHRD and conduct basic risk analysis training to Regional and Woreda level, as relevant to disease control and vaccination.

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

Terrestrial Code reference(s): Annexe 1

NOTE – The evaluation of this CC is only based on a visit to the main international airport in Addis Ababa and does not include terrestrial border import quarantine and inspection for animals and animal products

Evidence (references of documents or pictures listed in Appendix 6): HJS23, HJS34-35.

Findings:

Veterinary quarantine and inspection arrangements at the major international airport for imported animals and animal products seemed adequate with import permits, health certificates and inspection records cited.

Unfortunately no terrestrial border inspection and quarantine posts for imports were able to be visited due to time and/or security constraints and so their quality has not been evaluated.

Despite this, it was generally acknowledged that cross border smuggling or nomadic herding of animals by pastoralists along the extensive borders with neighbouring countries occurs with attendant risk of spread of TADs. Bilateral meetings are sometimes held with neighbouring countries on harmonising cross border inspection protocols and addressing illegal animal movements e.g. between Ethiopia and Kenya in 2008 and 2010. Implementation of such measures would be a major challenge.

Strengths:

- Airport inspection and quarantine of imported animals (pets), animal products and drugs seems based on international standards
- Cross border meetings held with neighbouring countries on border quarantine and inspection procedures and harmonization of protocols

Weaknesses:

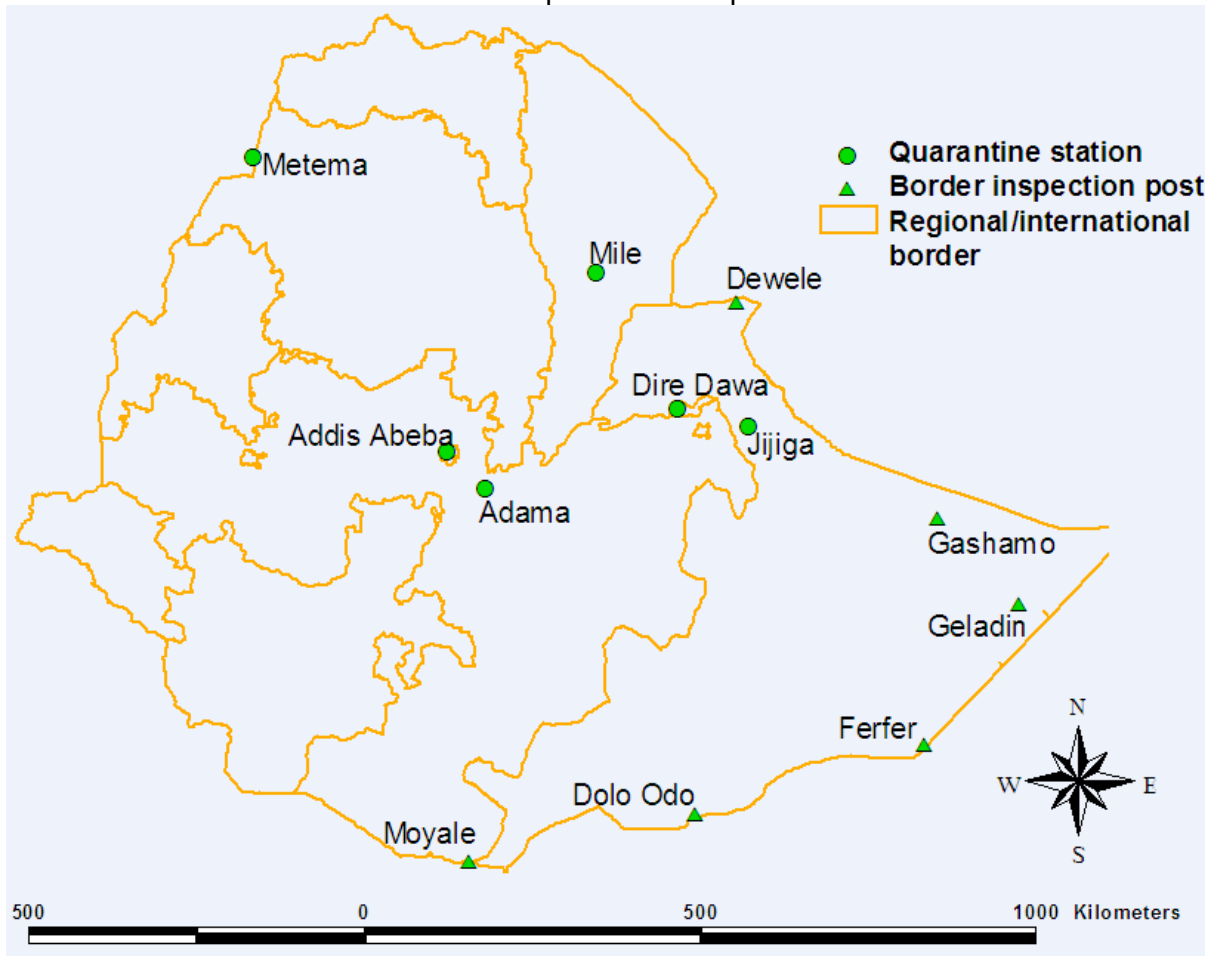
- Computerization of activities, especially at high throughput areas at Bole International Airport is lacking.
- No terrestrial borders were able to be visited during the mission and security issues are common.
- Borders are often extremely remote and occupied by nomadic pastoralists, so risks of informal movements are high.

Recommendations:

- Expedite computerization of quarantine and border post activities to provide relevant data promptly for decision making.
- Cross border meetings should include more neighbouring countries such as Sudan, Djibouti as well as Kenya.

- Border inspection and quarantine processes should not incorporate disincentives (e.g. fees) that would further discourage traders and nomadic pastoralists to utilise them.

Approved border inspection posts (airports and land crossings) in the Federal Democratic Republic of Ethiopia



II-5. Epidemiological surveillance <i>The authority and capability of the VS to determine, verify and report on the sanitary status of the animal populations under their mandate.</i> A. Passive epidemiological surveillance	Levels of advancement
	1. The VS have no passive surveillance programme.
	2. The VS conduct passive surveillance for some relevant diseases and have the capacity to produce national reports on some diseases.
	3. The VS conduct passive surveillance in compliance with OIE standards for some relevant diseases at the national level through appropriate networks in the field, whereby samples from suspect cases are collected and sent for laboratory diagnosis with evidence of correct results obtained. The VS have a basic national disease reporting system.
	4. The VS conduct passive surveillance and report at the national level in compliance with OIE standards for most relevant diseases. Appropriate field networks are established for the collection of samples and submission for laboratory diagnosis of suspect cases with evidence of correct results obtained. Stakeholders 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 stakeholders and the international community (where applicable) on the findings of passive surveillance programmes.	

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1160143-44, P1160172 – 95, P1160270-76, P1160341-381, P1160383- 91, P1160563-567, 579-614, P1160615-620, P1160906- 912, P1160982- 990, SWA-4, PWA-14, PWA-31, PWA-39, PWA-40, SJM5, SJM9, SJM10, SJM13, SJM18, SJM24, HJS34-35, HJS23, SJM15, SJM7, PWA-32.

Findings:

Passive surveillance for animal diseases has been enhanced by various technical projects since 1982 especially Pan Africa Rinderpest Campaign (PARC) and Pan Africa Control of Epizootics (PACE). General disease reporting is based on monthly Woreda reports and the rate of monthly reporting by region and woreda has been calculated and shared publicly in recent years (such as in the Ethiopian Animal Health Yearbook). This, along with training in disease reporting of Woreda staff, is slowly improving field reporting consistency from a low baseline.

Passive surveillance of livestock diseases in the field is the responsibility of regional animal health services, regional veterinary laboratories and woreda animal health personnel. The coverage of the field veterinary or veterinary para-professional network across the territory for the purposes of passive surveillance can be described as sufficient, largely a result of needs based veterinary para-professional training and recruitment. The exception is in more remote pastoral regions where lesser skilled CAHWs provide field surveillance and reporting. Despite this, monthly reporting rates are low, with a national average of only 47%. This result is highly variable amongst regions and Woredas.

Disease outbreak reports are compiled and filled in standard formats and four copies are communicated to each of the regional animal health services and Federal Veterinary Epidemiological Unit, to the Zone Animal Health Office and one copy is kept by Woreda animal health staff. As discussed previously, regional laboratory staff are heavily involved in disease outbreak investigation and sampling, and capacity building of Woreda staff is required to reduce their dependence on the lab staff.

At quarantine inspection posts, passive surveillance is carried out for FMD (physical examination and moulting). At abattoirs, passive surveillance for CBPP, CCPP, PPR and cysticercosis (bovine) is carried out.

Strengths:

- Reasonable coverage of qualified active staff (veterinarians and veterinary para-professionals) at woreda and sub-woreda level to carry out passive surveillance in the field.

-
- Formats for passive surveillance reporting available and reports shared from woredas with all levels.
 - Rates of monthly disease reporting recorded for all woredas and regions.

Weaknesses:

- The use of CAHWs in remote regions who are less reliable as sources of passive disease surveillance and reporting (i.e. report suspect cases based on clinical signs).
- Rates of monthly disease reporting are relatively low at a national level of 47%, and this is highly variable across the regions.
- Paper based systems are inefficient.

Recommendations:

- Augment the number of veterinarians in the field to carry out passive surveillance and supervise veterinary assistants in the field.
- Continue training woreda field staff in disease reporting and convey clearly to them the need for this to support livestock and livestock product exports.
- Continue publishing disease reporting rates and make them more visible, in an attempt to generate competition between regions and/or woredas, or to generate shame in having very low levels of monthly reporting performance.
- Build capacity of field staff in disease investigation and sampling.
- Implement electronic disease information systems for ease of data collation and analysis.

II-5. Epidemiological surveillance	Levels of advancement
<i>The authority and capability of the VS to determine, verify and report on the sanitary status of the animal populations under their mandate.</i>	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.
B. Active epidemiological surveillance	

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): SJM10, P1140836, P1140863, P1140861, P1140866-69, P1140871, P1140872, P1140873, P1140874, P1160270-76, P1160568- 578, PWA-12, PWA-32, SJM5, SJM9, SJM15.

Findings:

In view of the export drive for livestock and livestock products, Ethiopia gives high priority for the active surveillance of specified TADs to provide relevant technical data on disease status to countries (especially in MENA) wishing to engage in livestock trade with the country. NAHDIC coordinates active surveillance for TADs such as PPR, FMD, RVF, CBPP and Brucellosis with the Regional veterinary laboratories. In 2009/10, NAHDIC in collaboration with the Regional veterinary laboratories collected a total of 14,328 serum samples for testing. Active surveillance for some diseases is international project dependent e.g. avian influenza. Observation in the field was that SOPs for serological lab testing of diseases needs review and updating where necessary. Epidemiology units must consult the laboratory/field staff to determine sample size and relevant logistics for surveillance activities. More vaccination sero-surveillance studies should be undertaken to measure the true effectiveness of vaccination programmes.

Strengths:

- Active surveillance a priority within the Veterinary Services of Ethiopia.
- Laboratories suitably equipped and resourced to carry out active surveillance for priority TADs.

Weaknesses:

- Linkages with Disease Risk Analysis case team in active surveillance not formalized and unclear.
- Blood sampling for active surveillance should be able to be undertaken by field staff but apparently this is not the case and regional lab staff do the sampling.

Recommendations:

- In view of the food security and social implications of the effect of Newcastle disease outbreaks, active surveillance for Newcastle disease is recommended to underpin success or lack of success of vaccination programmes...
- Teach field staff how to take blood samples
- Regular refresher training for new techniques in active surveillance for TADs.
- Establish proper linkages with Disease Risk Analysis case team as regards determination of sampling frame and other epidemiologic indicators for surveillance.
- Undertake more vaccination sero-surveillance to measure vaccine effectiveness against key TADs.

II-6. Early detection and emergency response	Levels of advancement
<i>The authority and capability of the VS to detect and respond rapidly to a sanitary emergency (such as a significant disease outbreak or food safety emergency).</i>	1. The VS have no field network or established procedure to determine whether a sanitary emergency exists or the authority to declare such an emergency and respond appropriately.
	2. The VS have a field network and an established procedure to determine whether or not a sanitary emergency exists, but lack the necessary legal and financial support to respond appropriately.
	3. The VS have the legal framework and financial support to respond rapidly to sanitary emergencies, but the response is not coordinated through a chain of command.
	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.
	5. The VS have national contingency plans for all diseases of concern through coordinated actions with all stakeholders through a chain of command.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): HJS1, HJS2, HJS3, HJS6, HJS12, HJS13, HJS15, HJS36, P1140861, P1140863, P1160148-49, P1160151, P1160270-76, P1160906- 912, SJM10.

Findings:

Contingency plans have been prepared for Rift Valley Fever, Foot and Mouth Disease, Rinderpest and HPAI. Reference is made to movement control of animals in emergencies (Proclamation # 267/2002) Articles 4&5. There are issues relating to singular authority and chain of command provisions within relevant legislation, where authority can be granted to an Animal Health Officer by either APHRD or the Regional Bureaus. The national CVO should have sole authority and responsibility as part of the emergency chain of command (see CC1.6A). The APHRD is also entitled to access emergency funds allocated to the Ministry of Agriculture in time of emerging and re-emerging animal diseases of trade and livelihood significance (see CC1.9). This facility fulfils a very critical need to resource responses to animal disease emergencies.

Further simulation exercises, such as the one conducted for HPAI in September to October 2008, could be considered for the future so as to define areas of critical need during animal disease emergencies, establish institutional and individual responsibilities in outbreak management; and improve overall response time to animal disease outbreaks.

Strengths:

- Contingency plans are already in place for the major exotic TADs – RVF, HPAI, FMD and Rinderpest
- Source of funding for managing animal disease outbreaks available
- Country responded well to HPAI threats and a simulation exercise was carried out

Weaknesses:

- Contingency plans to be reviewed periodically and contents discussed with various stakeholders
- Emergency provisions in legislation are lacking a singular chain of command line authority, which could delay rapid decision making.

Recommendations:

- Hold periodical simulation exercises on the prevention and control of priority TADs
- Amend legislation to improve the VS chain of command during emergencies.

II-7. Disease prevention, control and eradication	Levels of advancement
<i>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.</i>	1. The VS have no authority or capability to prevent, control or eradicate animal diseases.
	2. The VS implement prevention, control and 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 and eradication programmes for some diseases and/or in some areas with scientific evaluation of their efficacy and efficiency.
	4. The VS implement prevention, control and eradication programmes for all relevant diseases but with scientific evaluation of their efficacy and efficiency of some programmes.
	5. The VS implement prevention, control and eradication programmes for all relevant diseases with scientific evaluation of their efficacy and efficiency consistent with relevant OIE international standards.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): HJS36-8, SJS1, SJS2, P1140861-3, P1160037, P1160039-40, P1160042, P1160148-49, P1160151, P1160158-95, P1160270-6, P1160341-81, P1160383-413, P1160615-20, P1160906-12, P1160982-90, P1161007-9, PWA-39-40, SJM1, SJM5, SJM18.

Findings:

One of the main functions of the VS is to actively follow up on the prevention and control of TADs. Key national disease contingency and control strategies have been developed for all the major TADs including RVF, FMD, HPAI, PPR, CBPP, and trypanosomes. Of key trade importance is RVF, a disease which has not been reported in Ethiopia but in neighbouring countries such as Kenya, Somalia and Sudan. A consequence of outbreaks of RVF in neighbouring countries is that Ethiopia has suffered from regional bans of livestock trade by Middle Eastern importers. The VS therefore carries out active surveillance for this disease so as to assure importing countries of the absence of this disease. Ethiopia has prepared contingency and response plans. The plans take into consideration the provisions of OIE Terrestrial Animal Health Code for RVF.

For FMD, the disease is widespread throughout the country. The country has developed plans for the prevention and control of the disease. Ethiopia has also adopted a regionally coordinated pathway for the progressive control of FMD and is currently considered to be on step 2 of the Progressive Control Pathway (PCP) for FMD. In the field, it was apparent that not enough FMD vaccines are available, due to costs. FMD is ranked as # 1 animal disease in terms of priority by pastoralists due to the severe impacts it can cause (deaths particularly in young animals, severe production losses) due to it causing an inability to walk or feed properly during regular marginal seasons when constant livestock movement is required to access feed and water. Serotype O is the predominant serotype in Ethiopia followed in decreasing order by serotype A, SAT-2, SAT-1 and serotype C.

PPR is a disease of prime importance in small ruminants. The disease was first detected in the southern Omo River valley in 1989. A survey in 1997 in Debre Zeit suggested a seroprevalence rate of 85.7% in animals from pastoral areas. PPR vaccines produced by the NVI are used for vaccination of small ruminants against this disease. According to records 10, 738,150 doses of PPR vaccines were distributed to the regions of Tigray, Afar, Amhara, Oromia, Somali and SNNP in 2009/10 for the prevention and control of PPR.

Bovine trypanosomiasis, spread by the Tsetse fly, has devastating impacts in South Western Ethiopia. Control is based on trypanocidal drugs but problems have emerged with drug resistance. The VS, in partnership with the Southern Trypanosome Eradication Programme (STEP) is attempting to first control the prevalence of disease with judicious use of trypanocidal drugs (and close monitoring of resistance), and then eradicate the disease

through release of sterile male Tsetse flies, which are being reared and irradiated at the Tsetse fly rearing and irradiation centre in Kality.

Strengths:

- Excellent national strategy and planning documents for control of major TADs, produced to high technical standards by the central VS and distributed across the country to better align national efforts.
- Vaccine sero-surveillance for FMD is carried out at NAHDIC and in some regional labs.
- Good donor support for certain disease prevention and control programmes such as for HPAI and trypanosomes.
- Good track record in RVF proof of freedom via risk based surveillance approaches.

Weaknesses:

- Vaccination is not undertaken using a risk based approach (see CCII.3) but rather tends to be based on livestock populations (i.e. achieving a certain % of animals vaccinated in a certain area).
- There is no post vaccination surveys on official vaccinations except for FMD
- Cost benefit analysis of official vaccination has not yet been done.

Recommendations:

- Systematic vaccination programmes should be put in place for priority TADs and vaccine deployment should be based on risk analysis.
- Much more vaccination sero-surveillance should be undertaken to determine the effectiveness of vaccination programmes.
- Partial cost recovery could be considered for the effective implementation and sustainability of some vaccination programs after cost benefit analysis e.g. FMD in pastoralist areas

II-8. Food safety	Levels of advancement
<p>A. Ante and post mortem Inspection at abattoirs and associated premises (e.g. meat boning / cutting establishments and rendering plants).</p> <p><i>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. This competency also covers coordination with other authorities where there is shared responsibility for the functions.</i></p>	1. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are generally not undertaken in conformity with international standards.
	2. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards only at export premises.
	3. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards for export premises and for major abattoirs producing meat for distribution throughout the national market.
	4. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards for export premises and for all abattoirs producing meat for distribution in the national and local markets.
	5. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards at all premises (including family and on farm slaughtering) and are subject to periodic audit of effectiveness.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): SJS4, P1140952-3, P1140957-69, P1140973-91, P1140993-99, P1160003-22, P1160146-7, P1160341-81, P1160994-1006, PWA-2, PWA-23-25, SJM6, SJM10, PWA-41.

Findings:

Export meat hygiene and inspection is directly under the Veterinary Public Health Unit of APHRD. The team visited export abattoirs for cattle, sheep and goats in Debre Zeit, Modjo, Dire Dawa (Oromia Region) Bahir Dar (Amhara Region) where the team observed ante and post mortem operations in progress. Technical staff (typically a team of 7) are posted from the APHRD to the abattoirs and these include veterinarians, veterinary para-professionals and veterinary assistants. Zoonotic diseases/conditions of particular significance for inspectors included tuberculosis, cysticercosis, fasciolosis, paramphistomes, hydatidosis, brucellosis, and abscesses. Summary as well as daily records of antemortem rejections and post mortem condemnations were kept in book forms and sighted during visits. These could however be computerized and be linked up with national epidemiologic surveillance databases.

Movement permits are issued to animals destined for slaughter and registers and certificates of consignment are recorded especially at the export abattoirs. In 2 of the export abattoirs, HACCP systems were either in use or about to be implemented. On the floor of the slaughterhouse ante and post mortem inspections seem to be carried out inconsistently across export abattoirs, with abattoirs seeking HACCP accreditation performing hygienic practices and inspections to a higher standard.

The team also visited municipal abattoirs in Dire Dawa, and a slaughter slab in Buta Jira, Maskan in SNNP region. Meat hygiene and inspection in the large municipal slaughterhouse in Dire Dawa was of a reasonable standard. Obviously standards are much lower for the very small local slaughter slab, but even here detailed daily and summary records of carcase and organ condemnations were sighted, including reasons. No antemortem rejections records were sighted. The team saw a completed highly mechanized rendering plant at ASHRAF export abattoir in Bahir Dar-Amhara region, although it was not yet operational at the time of the visit. The team did not have the opportunity to visit a poultry slaughter facility.

Strengths:

- Very high standards of hygiene and inspection observed in export abattoirs seeking HACCP accreditation, good standards in others but with some inconsistency.
- Good international level infrastructural base observed for export abattoirs
- Generally good inspection records in all slaughterhouses visited, excepting ante-mortem inspection in the small slaughterslab.

Weaknesses:

- Lack of implementation of applicable standards in some non-export abattoirs.
- Some lack of motivation and job satisfaction for woreda meat inspectors.

Recommendations:

- Ensure better consistency in abattoir inspection methodologies for both ante and post mortem inspection in all export abattoirs.
- Must attain HACCP in all export abattoirs.
- Staged improvement of standards of hygiene and inspection in domestic abattoirs, starting with the largest ones servicing the national market.
- Improve the pay of woreda level meat inspectors, or integrate disease surveillance programme planning and analysis to ante and post mortem inspection to increase intellectual input and improve job satisfaction.

B. Inspection of collection, processing and distribution of products of animal origin	Levels of advancement
<p><i>The authority and capability of the VS to implement, manage and coordinate food safety measures on processing and distribution of products of animals, including programmes for the prevention of specific foodborne zoonoses and general food safety programmes. This competency also covers coordination with other authorities where there is shared responsibility for the functions.</i></p>	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 purpose.
	3. Implementation, management and coordination (as appropriate) are generally undertaken in conformity with international standards only for export purpose and for products that are distributed throughout the national market.
	4. Implementation, management and coordination (as appropriate) are generally undertaken in conformity with international standards for export purpose 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-processing and farm gate sale).

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

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1160234-50, PWA-21, PWA-45, PWA-37.

Findings:

There appears to be very little food safety regulatory measures (testing) for meat post slaughter, either at further processing or retail level, other than a stamp indicating inspection has taken place, designed to stop commercialisation of home slaughter (which is permitted for household consumption). Inspectors will confiscate and burn any meat being sold at market without a stamp. Meat safety standards are vital within Ethiopia due to the cultural norm to eat raw red meat as a delicacy.

Food safety programmes for commodities other than meat were not identified by the team, meaning that they either do not exist or there is no coordination between the VS and the human health agency responsible for them. The OIE PVS team did not observe systematic milk testing procedures (e.g. for Brucella, Coliform spp) for milk collected from producers, especially in highland areas. A dairy producer who sold raw milk direct to the public said he was not subject to any regulatory controls as regards food safety, and that this only applied to those who processed their milk (pasteurised) before sale. Honey is produced for home consumption and for limited export but the team did not visit any testing facility for this product due to time constraints.

The Northern field trip visited tanneries in Kombolcha and Mersa (Amhara region). The hides and skins are inspected for skin lesions caused by ectoparasites among other criteria for quality assessments. Some of the research work by parasitologists at NAHDIC has the objective of mitigating the effect of external parasites (ticks, lice) on hides and skin which can cause down-grading of the quality of leather products, which is a reasonably lucrative industry for Ethiopia.

Strengths:

- The VS has the technical capacity to test products of animal origin other than meat and meat products.
- Stamping of inspected meat takes place, including for local markets, to differentiate it from uninspected meat which is home slaughtered and not permitted for sale.

Weaknesses:

- No systematic program for food safety in relation to milk and milk products observed.
- No coordination with relevant human health authorities, if they exist.

Recommendations:

- The VS must develop a systematic plan for the regulatory control and testing of foods of animal origin other than meat. Immediate priorities would be addressing the zoonotic risks of brucellosis and tuberculosis from raw milk consumption.
- Coordinate with relevant human health authorities as appropriate.
- Use different forms of meat stamping to identify meat for the national and local markets, in line with higher standards of meat inspection introduced at larger slaughterhouses

II-9. Veterinary medicines and biologicals <i>The authority and capability of the VS to regulate veterinary medicines and biologicals, i.e the authorisation, registration, import, production, labelling, distribution, sale and use of these products.</i>	Levels of advancement
	1. The VS cannot regulate veterinary medicines and biologicals.
	2. The VS has some capability to exercise administrative control over veterinary medicines and biologicals.
	3. The VS exercise effective administrative control and implement quality standards for most aspects of the regulation of veterinary medicines and biologicals.
	4. The VS exercise comprehensive and effective regulatory control of veterinary medicines and biologicals.
	5. In addition to complete regulatory control, the VS systematically monitor for adverse reactions (pharmacovigilance) and take appropriate corrective steps. The control systems are subjected to periodic audit of effectiveness.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): HJS24-25, P1140942, P1140944-48, P1140950-1, P1160621- 3, P1160951-6, P1170023-4, PWA-5-6, SJM10.

Findings:

The Drug Administration and Control Authority (DACA) was established in 1999 under the Ministry of Health with the aim of ensuring the safety, efficacy and quality of human and veterinary drugs imported for use within Ethiopia. This has now been taken over by the Food, Medicines and Health Care Administration and Control Authority, also under the Ministry of Health.

However, it has been agreed by the appropriate higher authorities in Ethiopia to shift the regulatory administration of veterinary drugs to APHRD of the Ministry of Agriculture and Rural Development. To this end, APHRD has prepared a draft proclamation for administering and controlling veterinary drugs, biological products and in addition, animal feeds. This is currently before the Council of Ministers. The OIE/PVS team visited some drug stores in the Regions as well as visiting a veterinary drug importer within Addis Ababa.

Under DACA, there is a licensing system which seeks to ensure that certain drugs (mostly antibiotics) cannot be sold by non-veterinarians, but this is difficult to enforce. Drugs sold over the counter are mostly anthelmintics and anti protozoan drugs. A drug wholesaler and importer- a veterinarian was met who explained the distribution system for prescription and non-prescription veterinary drugs to outlets. He mentioned that provisions for import of drugs were stringent.

Most biological products (vaccines) ~ 15 are produced by the NVI at Debre Zeit which has the added advantage of PANVAC external quality certification in compliance with OIE standards. Importation of veterinary biological agents other than vaccines produced by NVI, complies with OIE standards. There are issues relating to regulations relating to the distribution, sale and use of veterinary medicines.

Strengths:

- The sale of antibiotics is controlled by government authorities through prescription methods.
- A licensing system for veterinary drug stores that requires a veterinarian to be involved for the sale of certain classes of drugs.
- Efforts being made by the authorities to get the administration and control of veterinary drugs under the VS.
- Imported drugs are required to undergo a stringent process of quality control prior to import approval being granted.

Weaknesses:

- Difficulties in veterinary drug administration and control because of present arrangements.
- An apparent reluctance to engage with DACA (i.e. take on redundant staff) to assist with transitional arrangements for veterinary drug regulatory control.

Recommendations:

- Expedite the final promulgation of the veterinary drugs administration and control act.
- Plan carefully for the transition of regulatory control of veterinary drugs, including engaging with relevant DACA staff.

II-10. Residue testing	Levels of advancement
<i>The capability of the VS to undertake residue testing programmes for veterinary medicines (e.g. antimicrobials and hormones), chemicals, pesticides, radionuclides, metals, etc.</i>	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 use.
	4. A comprehensive residue testing programme is performed for all animal products for export and/or internal consumption.
	5. The residue testing programme is subject to routine quality assurance and regular evaluation.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): PWA-45

Findings:

The team was informed of efforts to construct and equip a laboratory specifically designated for residue testing at Kality, near Addis Ababa. Currently, no residue testing is being done. As such, no SOPs were seen for hormones, antimicrobials, heavy metals and pesticides testing. The team was assured that these will be put in place once the construction of the residue testing laboratory has been completed.

Strengths:

- Suitable qualified persons are available in Ethiopia to commence residue testing as soon as construction and equipping of the laboratory have been completed.

Weaknesses:

- Laboratories for residue testing currently not operational

Recommendations:

- Establish a residue testing programme for antimicrobials, hormones, heavy metals, and pesticides as further quality assurance for livestock and livestock products.
- Launch an awareness and communications campaign with farmers, traders, slaughterhouse operators, veterinary para-professionals and veterinarians about residue risks from drugs, pesticides, hormones and heavy metals on farm, and particularly the need to observe withholding periods for veterinary drugs prior to slaughter.

II-11. Emerging issues	Levels of advancement
<p><i>The authority and capability of the VS to identify in advance, and take appropriate action in response to likely emerging issues under their mandate relating to the sanitary status of the country, public health, the environment, or trade in animals and animal products.</i></p>	1. The VS do not have procedures to identify in advance likely emerging issues.
	2. The VS monitor and review developments at national and international levels relating to emerging issues.
	3. The VS assess the risks, costs and/or opportunities of the identified emerging issues, including preparation of appropriate national preparedness plans. The VS have some collaboration with stakeholders and other agencies (e.g. human health, wildlife and environment) and with stakeholders on emerging issues.
	4. The VS implement, in coordination with stakeholders, prevention or control actions due to an adverse emerging issue, or beneficial actions from a positive emerging issue. The VS have well-developed formal collaboration with stakeholders and other agencies (e.g. human health, wildlife and environment) and with stakeholders on emerging issues.
	5. The VS coordinate actions with neighbouring countries and trading partners to respond to emerging issues, including audits of each other's ability to detect and address emerging issues in their early stages.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): HJS11, HJS29.

Findings:

The diagnostic capacity for RVF is well established and contingency/response plans are in place. Laboratory capacity for this is established internally at NAHDIC. Ethiopia converted the Emergency Committee for HPAI to a Zoonoses Committee, partnering with human health, to deal with the threat of RVF outbreaks in neighbouring countries in 2009. This is commendable and an example worthy of emulation in the spirit of "One Health". The VS (NAHDIC) collaborates with the Wildlife Conservation Authority in terms of strategies to combat emerging disease threats such as HPAI in wild birds and rabies in wild carnivores e.g. the Ethiopian wolf. The team was briefed by the Veterinary Authorities that emerging animal disease issues are discussed promptly as issues emerge and strategies developed to counteract such emerging animal disease events. An example was given as the manner in which the threat of HPAI and RVF were handled. Also discussions were held with the SPS-LMM team on the potential for commodity based trade (CBT) that relies on a functional VS to underpin regulatory framework pertaining to CBT

Strengths:

- The Veterinary authorities are capable of drawing on a pool of competent professionals to discuss and implement plans related to emerging animal disease threats and related issues.

Weaknesses:

- Poor coordination with stakeholders at grassroots level on the dangers of emerging disease threats e.g. RVF
- Poor internet access across most of the country means staff cannot keep abreast of relevant media relating to emerging issues, or be on the mailing lists of relevant forums such as Promed.

Recommendations:

- Institutionalize an Emerging Issues group or at least designate responsibility for Emerging Issues to an individual within APHRD or NAHDIC. This individual should keep abreast of relevant internet forums such as Promed, and be on mailing lists for national, regional and global news articles of relevance to animal health.
- Improve IT infrastructure and in particular internet access across the VS.
- Provide methodology of action on new disease threats and related issues including communications and consultative processes with stakeholders.

II-12. Technical innovation⁸ <i>The capability of the VS to keep up-to-date with the latest scientific advances and to comply with the standards of the OIE (and Codex Alimentarius Commission where applicable).</i>	Levels of advancement
	1. The VS have only informal access to technical innovations, through personal contacts and external sources.
	2. The VS maintain a database of technical innovations and international standards, through subscriptions to scientific journals and electronic media.
	3. The VS have a specific programme to actively identify relevant technical innovations and international standards.
	4. The VS incorporate technical innovations and international standards into selected policies and procedures, in collaboration with stakeholders.
	5. The VS systematically implement relevant technical innovations and international standards.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1140899, P1140904, P1160158-71, PWA-15, SJM2, SJM6.

Findings:

NAHDIC and NVI are principally responsible for research in veterinary science within the APHRD. The team observed a close working relationship between the two institutions and the regional veterinary laboratories. The team did not observe strong research linkages with Universities offering courses and training of veterinary graduates. The Ethiopian Veterinary Association publishes a scientific peer reviewed journal which is respected both locally and internationally. It holds an annual scientific conference which is well attended and was advertised widely across the VS in the whole country. The library of the EVA has various scientific publications relevant to the advancement of veterinary science.

NAHDIC laboratory and regional laboratories as well as the APHRD headquarters are equipped with internet facilities and modern diagnostic equipment. NAHDIC staff members had been trained in the latest surveillance techniques to demonstrate disease freedom and had implemented them in the successful demonstration of freedom from RVF to reinstate trade with Middle Eastern countries following regional bans.

An agricultural research institution was visited that did foster close links with end-users to both feed into research design and uptake research outputs.

Strengths:

- Competent staff to advance technical innovations are in place, and this has been demonstrated for RVF.

Weaknesses:

- Linkages with various stakeholders (producers) to share technical innovations are minimal and need improvement
- Lack of use of mobile devices and IT in disease reporting and information management.

Recommendations:

- NVI could further advance the technical innovation of producing thermo stable PPR vaccine which will contribute immensely to control PPR especially in pastoral areas where cold chain facilities might not be readily available
- Strengthen linkages with Universities and other public health institutions for the advancement of research in Veterinary Science in Ethiopia.
- The use of mobile devices in animal disease reporting and information management should be encouraged, in line with modern trends in IT developments

⁸ Technical innovation includes new disease control methods, new types of vaccines and diagnostic tests, food safety technologies, and connections to electronic networks on disease information and food emergencies.

II-13. Identification and traceability	Levels of advancement
A Animal identification and movement control <i>The authority and capability of the VS, normally in coordination with stakeholders, to identify animals under their mandate and trace their history, location and distribution for the purpose of animal disease control, food safety, or trade or any other legal requirements under the VS/OIE mandate.</i>	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 sub populations as required for disease control, in accordance with relevant international standards.
	4. The VS implement all relevant animal identification and movement control procedures, in accordance with relevant international standards.
	5. The VS carry out periodic audits of the effectiveness of their identification and movement control systems.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): SJM6, P1160044-47, P1160055-57, P1160038, P1160039-40.

Findings:

Identification of live animals destined for exports and slaughter at export abattoirs starting at feedlot level, is done through eartagging. It is recognized that livestock identification of the entire livestock population of Ethiopia is a huge challenge. However, it is the observation of the team that a pilot project should be established to expand the current procedure for identification. The use of tamper proof eartags with database back up system could be an ideal way to starting the animal identification process. Mobile phone data reporting is likely to be a key component of this system.

Movement control for animals destined for export is well implemented with the issue of movement permits from the (marketing) points of origin to destination.

Strengths:

- A good animal movement permit system is in place for animals destined for export.
- Traceability is implemented for animals destined for export (either live or as meat).

Weaknesses:

- Animal identification and traceability only starts at feedlots and quarantine posts. There is no identification at source markets or farms.

Recommendations:

- There is an urgent need to develop cost effective and sustainable animal identification system. May consult countries with experience in this area for technical advice and support. This is more critical because it is envisaged that future trading partners for Ethiopia's livestock and meat products, may require traceability from "farm to fork"

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

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1160994- P1161006, P1140961, P1140962, P1140963-966, P1140936-41.

Findings:

Meat consignments for export would be identified by slaughterhouse of origin and date as on the export permit and health certificate. These may be able to be traced back further to feedlots and markets of origin. Inspected meat for domestic consumption is stamped which permits it to be sold commercially (at markets). Non-stamped meat, such as from home slaughter cannot be sold commercially and local VS inspect meat within markets and will confiscate any non-stamped meat.

There was no evidence of product traceability systems for other livestock products such as milk and eggs.

Strengths:

- Export meat consignments are identified so a product can be traced at least to the slaughterhouse level.
- Inspected meat for the domestic market is stamped to prevent sale of uninspected meat at markets (home slaughtered meat lacking a stamp will be confiscated).

Weaknesses:

- No traceability systems for other livestock products.
- Trace back only possible to slaughterhouse level, or possibly feedlot and market level for exported meat.

Recommendations:

- Evaluate the feasibility of developing appropriate traceability systems for export as well as non-export abattoir products of animal origin that would permit traceback to markets or farms of origin.
- Livestock product traceability could be extended to other livestock products such as milk and eggs.

II-14. Animal welfare	Levels of advancement
<i>The authority and capability of the VS to implement the animal welfare standards of the OIE as published in the Terrestrial Code.</i>	1. The OIE standards are generally not implemented.
	2. Some of the OIE standards are implemented, e.g. primarily for the export sector.
	3. All of the OIE standards are implemented but this is primarily for the export sector.
	4. All of the OIE standards are implemented, for the export and the domestic sector.
	5. The OIE standards are implemented and implementation is periodically subject to independent external evaluation.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): SWA-1, SWA-2, SWA-3, P1170021-22, P1140935.

Findings:

An animal welfare working group supported by the Government is in place. It has terms of reference and meets regularly. An Animal Welfare Gap Analysis on policies on animal welfare was done with the involvement of NGOs such as the Brooke Foundation based in Addis Ababa, which the OIE/PVS team visited whilst in Addis Ababa. The Working Group was set up to consider the Animal Welfare Gap Analysis and advise on transport of animals and general treatment of animals throughout the country. The authorities are planning to include Animal Welfare Provisions in the Veterinary Curriculum of Universities training Veterinary Graduates, and the Brooke Foundation is already assisting with a focus on equine welfare. The team visited the offices of the Ethiopian Livestock Traders Professional Association and noted posters and activities geared towards the prevention of cruelty to animals destined for transportation and slaughter.

Strengths:

- Animal welfare group has both government and NGO support
- Animal welfare issues considered as important and reasonable standards seem to be adhered to at export abattoirs and by live exporters when transporting.
- A focus on education of veterinarians, veterinary para-professionals and farmers is being undertaken, with the assistance of relevant NGOs.

Weaknesses:

- Currently, there is a lack of legislation on animal welfare.
- Ethiopian farmers and pastoralists may need further education about the importance of welfare, such as with pack horse labour.
- It is unlikely welfare standards are adhered to in smaller slaughtering establishments.

Recommendations:

- Involvement of stakeholders in the livestock trade on animal welfare issues so as to get their support and compliance with necessary directives.
- Include welfare provisions in new legislation.

III.3 Fundamental component III: Interaction with stakeholders

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

Critical competencies:

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

Terrestrial Code References:

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

Point 9 of Article 3.2.1. on General considerations.

Points 2 and 7 of Article 3.2.3. on Evaluation criteria for the organisational structure of the VS.

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

Article 3.2.11. on Participation on OIE activities.

Article 3.2.12. on Evaluation of the veterinary statutory body.

Points 4, 7 and Sub-point g) of Point 9 of Article 3.2.14. on Administration details / Animal health and veterinary public health controls / Sources of independent scientific expertise.

III-1. Communications	Levels of advancement
<i>The capability of the VS to keep stakeholders informed, in a transparent, effective and timely manner, of VS activities and programmes, and of developments in animal health and food safety.</i>	1. The VS have no mechanism in place to inform stakeholders 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 stakeholders.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): HJS12, HJS16-20, HJS26-7, SJS8, P1140857, P1140935, P1160122, P1160123-37, P1160154-7, PWA-19, SJM1.

Findings:

The Ministry of Agriculture has a head of public relations with overall responsibility for and specialised training in communications. There are three veterinarians in the Ministry's Extension Directorate who assist with animal health communications, in liaison with APHRD.

It was reported that issues on animal health regularly feature in the Ministry monthly and quarterly newsletters and bulletins. Also APHRD has its own quarterly epidemiology newsletter. There is also a weekly animal health radio program in different local languages for the benefit of local farmers.

There is an HPAI project related communications strategy document. Under the Project, leaflets, brochure, posters, radio programmes including the revision and updating of the national communication AHI strategy was carried out.

The VS is indirectly involved in some animal health awareness and training conducted for farmers through Woreda Farmer Training Centres and/or Development Agents by request.

The EVA (including CAHNET) are very active in the field of animal health communications for veterinarians, veterinary para-professionals and CAHWs.

Strengths:

- High level representation for communications within the Ministry (Head of Public Relations) means communications are given high priority generally
- Veterinary presence within the Extension Directorate, which liaises with APHRD to coordinate animal health communications.
- Existence of special project related communications team and strategy (e.g. HPAI).
- Strong EVA and CAHNET with good communications focus for disseminating communications messages to veterinarians, veterinary para-professionals and CAHWs.

Weaknesses:

- No dedicated communications staff within APHRD.
- Lack of communications structures in the Regional Bureaus and Woredas.
- Lack of stakeholder representation as avenue for disseminating communications messages.
- No broad animal health communications planning or strategy documents (i.e. beyond HPAI)

Recommendations:

- The VS should pursue the establishment of communication structures in both Regional Bureaus and Woredas.
- Appoint a dedicated communications contact point within APHRD.
- Facilitate establishment of stakeholder representation for farmers, and use them as mechanism to distribute communications/farmer awareness messages and materials.
- Develop an animal health communications strategy and/or action plan.

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

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): HJS10-2, HJS16, HJS26-7, SJS7-8, P1140934-5, P1160123-37, P1160234-50, P1160392-413.

Findings:

National stakeholder representative groups have been established for livestock export traders; the Ethiopian Livestock Traders Association (ELTA) which was established in 2004 with a current membership of 95 members involved in the export of live animals; and the Ethiopian Meat Producers-Exporters Association (EMPEA), an association of owners of export abattoirs. These groups are involved in consultations with government, but are not totally independent/financially sustainable, still receiving some government and project support (USAID SPS-LMM).

There is however a lack of organised national farmers groups. Existence of regional and sub-regional farmer groups was cited but no visits took place, and there was no evidence of consultation on animal health issues with any such farmers groups.

Individual stakeholders (particular traders or commercial farmers) maintain informal channels of consultation with VS.

A government agency, the Ethiopian Meat and Dairy Technology Institute (EMDTI) provided capacity building in the areas of livestock and livestock commodity exports, but had less focus on animal health issues, which were the responsibility of APHRD. Also, the Amhara Regional Agricultural Research Institute - Bahir Dar consults with stakeholders on research needs, outputs and uptake.

As commercial farming grows, stakeholder groups are more likely to emerge. Stakeholders groups for smallholders and pastoralists are harder to organise, and would require greater initial assistance.

Strengths:

- Good stakeholder representation and consultation for those involved in livestock and livestock product exports, through ELTA and EMPEA.
- Existence of Ethiopian Meat and Dairy Technology Institute (EMDTI) a government agency designed to provide capacity building in areas of exports.
- Consultation between research institutes and stakeholders (e.g Amhara Regional Agricultural Research Institute-Bahir Dar)

Weaknesses:

- Lack of organised national farmers groups and other producers associations, and therefore no formal consultation with farmers on national animal health issues.
- Poor consultation mechanisms with any existing farmers groups at sub-national level.

Recommendations:

- The National Livestock Working Group should be expanded to include a wider representation of the livestock sector to facilitate development of stakeholder supported strategic plans and exchange of key information.

III-3. Official representation	Levels of advancement
<i>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).</i>	1. The VS do not participate in or follow up on relevant meetings of regional or international organisations.
	2. The VS sporadically participate in relevant meetings and/or make a limited contribution.
	3. The VS actively participate 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.

Terrestrial Code reference(s): Annexe 1

Findings:

International meetings including OIE General Sessions are well attended by Ethiopia. The CVO (soon to retire) contributes positively to discussion during the sessions and is currently the President of OIE African Regional Commission. He was elected in May 2010. Regional Commission organises conferences once every two years on regional cooperation in control of animal diseases and other related issues. The Commission reports on these activities to the OIE World Assembly of Delegates. APHRD staff and the Ethiopian Veterinary Association (EVA) are routinely consulted on OIE issues. Other stakeholders such as farmers are however not usually consulted.

APHRD has a focal person on Codex and WTO SPS committees and sometimes participates in both local and international meetings.

Strengths:

- CVO regularly attends OIE General Sessions. The immediate past CVO was the President of the OIE African Regional Commission.
- Regular consultation between APHRD and Ethiopian Veterinary Association (EVA) a major stakeholder.

Weaknesses:

- Lack of consultation with other stakeholders beside Ethiopian Veterinary Association (EVA).

Recommendations:

- VS should evolve a mechanism for wider stakeholder consultations, and incorporate their views in future contributions during relevant meetings.

III-4. Accreditation / authorisation / delegation <i>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.</i>	Levels of advancement
	1. The public sector of the VS has neither the authority nor the capability to accredit / authorise / delegate the private sector to carry out official tasks.
	2. The public sector of the VS has the authority and capability to accredit / authorise / delegate to the private sector, but there are no current accreditation / authorisation / delegation activities.
	3. The public sector of the VS develops accreditation / authorisation / delegation programmes for certain tasks, but these are not routinely reviewed.
	4. The public sector of the VS develops and implements accreditation / authorisation / delegation programmes, and these are routinely reviewed.
5. The public sector of the VS carries out audits of its accreditation / authorisation / delegation programmes, in order to maintain the trust of their trading partners and stakeholders.	

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): SJM1

Findings:

Government staff perform all official VS tasks at the moment, except in the case of CAHWs who undertake vaccination and surveillance on an ad hoc basis in pastoralist areas. It was reported that powers do exist to delegate tasks to private practitioners and / or para-professionals but this has yet to occur in practice.

Government staff perform clinical services for farmers at present via a cost recovery mechanism. The farmers pay for all treatment medicines and vaccination for what is termed “List B” diseases, whilst the government covers service fees and fully covers vaccination for the major TADs (“List A” diseases). The government field VS are expanding rapidly with the national target of one animal health clinic or post for every three PAs.

Despite the stated government policy on supporting private provision of VS, this system does not create an enabling environment for the delivery of private VS to be economically viable

Currently all veterinary laboratory activities are undertaken in government laboratories by government staff. There are no private laboratories.

Strengths:

- Existence of large populations of animals and the willingness of producers to pay for medicines and services rendered provide the conditions that could allow for private veterinary services to flourish in the absence of unfair Public Service competition.

Weaknesses:

- Very few numbers of private veterinarians.
- Expanding government field VS, which also provides clinical services to farmers on favourable terms (service fees fully subsidised), means private VS cannot compete.
- Existence of loosely supervised CAHWs.

Recommendations:

The VS should explore and “test out” innovative options to improve “private” contributions to VS and therefore reduce budgetary dependence on the government for field VS, as aligned with its stated policy of “privatisation”. Two such options could be:

- Keep the field VS as government employees but segregate off clinical services as “private good” and allow the field veterinarians and veterinary para-professional to charge farmers appropriately (based on the market) for these services (including for treatment drugs, non-TAD vaccines and labour).

-
- Support operations of a privatised field VS (veterinarians and veterinary para-professionals) in selected areas through sanitary mandates plus the delegation of some regulatory official functions to private practitioners.

III-5. Veterinary Statutory Body (VSB)	Levels of advancement
A. VSB authority <i>The VSB is an autonomous authority responsible for the regulation of the veterinarians and veterinary para-professionals. Its role is defined in the Terrestrial Code.</i>	1. There is no legislation establishing a VSB.
	2. The VSB regulates veterinarians only within certain sectors of the veterinary profession and/or do not systematically apply disciplinary measures.
	3. The VSB regulates veterinarians in all relevant sectors of the veterinary profession and apply 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 apply disciplinary measures to veterinarians and veterinary para-professionals in all sectors throughout the country.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): SJM10, SJM1, P1160123-126, HJS9.

Findings:

There is no enacted legislation establishing a VSB in Ethiopia, although a draft proclamation has been completed and is currently before the Ethiopian Council of Ministers. At present the Ministry of Agriculture and Rural Development and the Ethiopian Veterinary Association (EVA) jointly conduct activities typical of a VSB but in an informal manner. For example, they maintain a list of qualified veterinarians and have established a code of ethics for veterinarians. The Ministry of Education is enforcing standardized veterinary curricula for all the Veterinary faculties in the country and some meetings involving all Deans have taken place to put this into effect.

The absence of a VSB has serious implications especially in the area of Veterinary faculties accreditation. This is to avoid the risk of inconsistent standards of graduates especially given the rapid increase in recent years of the numbers of new Veterinary faculties in the country. Disciplinary actions and other sanctions in cases of professional negligence and other malpractices cannot legally be pursued.

The draft proclamation and regulation on the proposed VSB, the Ethiopian Veterinary Council is of good quality and is in conformity with international standards.

The VSB should also regulate veterinary para-professionals, though concerns about educational standards are lessened due to the fact there is only one proper training facility for veterinary para-professionals in the country, the Alage TVET college.

Care needs to be taken to ensure the independence of the VSB such that it can perform its regulatory functions free from both political interference and professional advocacy.

Strengths:

- Draft proclamation and regulations for the establishment of the Ethiopian VSB are of good quality and in conformity with international standards, and currently before the Council of Ministers.
- The Ministry of Education is enforcing standardized curricula to ensure some uniformity of veterinary education, while the MoARD and Ethiopian Veterinary Association (EVA) are jointly carrying out activities typical of VSB.
- Only one training facility (Alage TVET) ensures uniformity of educational standards for veterinary para-professionals.

Weaknesses:

- No regulation and/or enforcement of veterinary professional standards of education.
- Greater risk of inconsistent standards of veterinary graduates given the rapid increase in numbers of new veterinary schools.

-
- No avenues to regulate standards of practice (e.g. de-registration for professional negligence)

Recommendations:

- APHRD should lobby for quick enactment of the VSB proclamation and regulations.
- Care needs to be taken to ensure independence of the VSB such that it can perform its regulatory functions free from political interference, institutional influence and professional advocacy.
- Continuing Education of Veterinary Professionals and para-professionals should be regulated, and planning for this should be initiated.

B. VSB capacity	Levels of advancement
<i>The capacity of the Veterinary Statutory Body (VSB) to implement its functions and objectives in conformity with the OIE standards.</i>	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 with OIE standards.
	5. The financial and institutional management of the VSB are submitted to external auditing.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1160123-126, HJS9.

Findings:

No current VSB, however, given the strong preparedness of MoARD and the Ethiopian Veterinary Association (EVA), establishment and implementation should be relatively smooth when the law is enacted.

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

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1160123-126, SJM10, SJM6, HJS11, HJS10.

Findings:

There are strong joint programmes between APHRD, the SPS-LMM project and the livestock export industries for both live animals and meat. The two phase SPS export certification system is a good example of a joint programme. The feedlots, quarantine stations and slaughterhouses involved are privately owned, but are certified by APHRD quarantine offices that licence premises for export, conduct inspections and vaccinations as appropriate, and provide export certification.

For farmers in Ethiopia, there is little evidence of the existence of producer associations and/or their consultation relating to animal health, therefore joint programmes are difficult to implement in the field. However, producers are generally compliant in terms of government led surveillance programmes (e.g. HPAI, RVF), and make financial contributions to both non-TADs vaccinations (List B diseases) and treatment medicines (anthelmintics, antibiotics, anti-inflammatories and other drugs), as administered by government field veterinarians.

More could perhaps be done to improve joint programmes with producers through better and more targeted extension and communications efforts from the VS. For example, in the southern pastoral areas (Borena zone) of the Oromia region, it was reported that FMD was such a major concern for pastoralists that they would probably be prepared to fund FMD vaccination of their own cattle at critical risk periods of the year if vaccines were available. Ensuring a supply of vaccine and conducting an extension programme encouraging private contributions to FMD vaccination on certain dates could be a very useful joint programme for the Ethiopian VS to pilot. If deemed successful and there was reasonable farmer uptake and protection was found to be effective (via some targeted vaccination sero-surveillance), this joint programme could be expanded to other pastoral areas of the country.

Strengths:

- Strong joint programmes with the export sector.
- Given the political structure of the country organising farmers into producer associations should be relatively easy.
- General willingness of producers to support government VS activity, such as with active surveillance programmes for HPAI and RVF.
- A stated policy supporting private provision of VS.

Weaknesses:

- Non-existence of many producer associations except in the areas of livestock and livestock commodities export.
- The Ethiopian VS does not seem to have explored to what level Ethiopian farmers might be willing to actively contribute (both in kind and financially) to particular animal

health outcomes through joint programmes (e.g. such as for FMD vaccination, where it is currently unavailable through the government)

Recommendations:

- Communication and awareness campaigns should be increased to ensure farmers and farmer groups continued support and participation in future programmes (e.g surveillance and vaccination).
- A joint programme with pastoralists involving partially or fully privately funded FMD vaccination could be piloted in Oromia, such as through the Yabello Regional Laboratory. This would involve the government sourcing the vaccine (imported if NVI is unable to produce) and undertaking extension activities with pastoralists in relation to an initially small-scale vaccination campaign.

III.4 Fundamental component IV: Access to markets

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

Critical competencies:

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

Terrestrial Code References:

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

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

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

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

Article 3.2.11. on Participation in OIE activities.

Points 6 and 10 of Article 3.2.14. on Veterinary legislation, regulations and functional capabilities / Membership of the OIE.

Chapter 4.3. on Zoning and compartmentalisation.

Chapter 4.4. on Application of compartmentalisation.

Chapter 5.1. on General obligations related to certification.

Chapter 5.2. on Certification procedures.

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

Chapters 5.10. to 5.12. on Model international veterinary certificates.

IV-1. Preparation of legislation and regulations	Levels of advancement
<p><i>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 warranty 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).</i></p>	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 stakeholder participation in most fields of activity.
	5. The VS regularly evaluate and update their legislation and regulations to maintain relevance to evolving national and international contexts.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1160123-126, SJM10, SJM6, HJS11, HJS10.

Findings:

The Ethiopian VS has a baseline of enacted animal health legislation as recorded in its Federal Negarit Gazette, based mainly on the Animal Diseases Prevention and Control Proclamation of 2002. It was recognized that this legislation is outdated, in terms of being not broad enough in scope to cover the full range of VS responsibilities, nor detailed enough in terms of subsidiary regulations to permit proper implementation. As a result of this, APHRD has worked hard in recent years to draft the following new proclamations:

1. Meat Hygiene Proclamation,
2. Livestock and Livestock Products Import and Export Proclamation,
3. Proclamation for the Establishment of Veterinary Council,
4. Veterinary Drugs, Biological Products and Animal Feed Administration and Control Proclamation.

These proclamations are now awaiting enactment by the Parliament.

In addition six regulations for enforcement of both the original 2002 legislation and the new proposed Proclamations have also been prepared. These are;

1. Regulation for registration of Veterinary Drugs, Biological Products and Animal feed.
2. Regulation for Prevention and Control of Animal Diseases.
3. Meat Hygiene and Safety Regulation.
4. Animal Movement and Traceability Regulation.
5. Livestock and Livestock Products Import and Export Control Regulation.
6. Regulation for the Establishment of Veterinary Council in Ethiopia.

These new legislations are of good quality and were drafted with assistance from the SPS-LMM programme and the legal department of FAO. Consultation was generally good culminating in a workshop with a broad range of stakeholders (108 participants) to review the new legislation in August 2010. It is hoped their passage through Parliament can occur quickly. They will need to be harmonised with relevant legislation or regulations at the level of the regional states and/or woredas where necessary. The ultimate test as to the quality of the drafting of the new legislation as developed will be how quickly it is passed by the Council of Ministers, or whether they will require any revisions.

Strengths:

- There is some existing legislation, enacted in 2002, which can be built on.
- The new proclamations and regulations are of good quality.
- Joint passage of the proclamations and regulations will allow for more rapid implementation.
- The proposed legislation was drafted with the assistance of external support including legal experts, such as from USAID SPS-LMM and FAO.
- There has been reasonably good consultation within the VS in the development of this legislation, including with regions, NAHDIC, NVI, EVA etc

Weaknesses:

- The large number and scale of ten new pieces of legislation (4 Proclamations & 6 Regulations) to be jointly passed by Parliament may result in lengthy delays. The proclamations were developed in 2008/09 and the regulations in 2009/10.
- No evidence of an evaluation of implications of new national legislation to any existing or required laws at regional and woreda level, given the decentralised governance arrangements in the country.

Recommendations:

- APHRD should lobby for the quick passage of these draft proclamations and regulations with the relevant authorities and institutions.
- APHRD should allow external stakeholders (farmers groups, municipality slaughterhouse operators) a chance to comment on the new legislation to ensure it is relevant and feasible to them.
- APHRD should assess implications of new legislation to existing or required legislation at regional and/or woreda level.

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

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): HJS8, HJS23, P1160032-35, HJS11.

Findings:

Implementation of existing legislation has been relatively weak in Ethiopia. The Ethiopian Animal health Yearbook (SJM10) quotes: *“The Ethiopian Government promulgated a proclamation to provide for the Prevention and Control of Animal Diseases No 267/2002 in January 2002. However, the supporting regulations, directives and guidelines are still not developed and endorsed and as a result it has not been possible to implement the proclamation as planned.”*

Legislative provisions in this proclamation for emergency response to diseases, such as for emergency declarations, quarantine, seizure and inspection powers have been implemented in Ethiopia since 2002. New regulations to support the implementation of existing and newly drafted proclamations have now been drafted and are awaiting parliamentary endorsement. In addition, it seems that in recent years VS policy and practice (implementation) may actually be getting ahead of enacted legislation in some areas. For example, the detailed inspection and certification system of the two phase SPS-LMM programme is already operational by private operators and the APHRD quarantine stations to satisfy export markets, despite not yet having updated legislative backing with the relevant proclamation awaiting enactment. The EVA already maintains a list of qualified veterinarians and has a Veterinary Code of Ethics, before legislation for a VSB has been passed. This bodes well for stakeholder compliance and implementation when such legislation and supporting regulations are passed.

Strengths:

- Legislation supported by regulations for enforcement have been drafted, which generally cover the full veterinary domain.
- Some of the provisions in new legislation are already being implemented, with stakeholders already compliant e.g. export certification for Middle Eastern markets.

Weaknesses:

- Timeframe on passage of new legislation is unknown.

Recommendations:

- An implementation plan taking cognisance of the Country's Federal structure and incorporating stakeholders' awareness and participation should be prepared. The regulations salient features should be presented in an easily understood manner.
- An evaluation of legislative needs at regional and woreda levels, as a result of the new national veterinary legislation, should be undertaken immediately by a legal expert.

IV-3. International harmonisation <i>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.</i>	Levels of advancement
	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 ⁹ , and use the standards to harmonise national legislation, regulations and sanitary measures.

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): CVO is President of OIE African Regional Commission

Findings:

Ethiopia is an active member of IGAD (Inter-Governmental Authority for Development in Eastern Africa) a member of the Eastern Africa Region and COMESA (Common Market for Eastern and Southern Africa) and the AU-IBAR. These regional bodies provide a platform (formal and *ad hoc*) where livestock related issues and trade are discussed. A number of bilateral negotiations and agreements with neighbours and trading partners on animal disease issues are in place (more detail is provided under CCIV.5).

The Ethiopian CVO was until very recently the President of the OIE Regional Commission for Africa. This high level representation ensured that Ethiopia was active in contributing and commenting within OIE forums, including on relevant international standards. Awareness of OIE standards across most levels of the VS is high. Continued use of List A and List B disease categorisations should be discontinued, or if they are to be continued for vaccination categorisations they should be termed “Ethiopian” List A (government funded) and List B diseases (privately funded). VS should update staff and stakeholders, especially at sub-national level on the new single OIE list. It may be that such categorisations might be made more logically by assessing the major disease control priorities for the government, vaccine costs and which vaccinations producers are willing to contribute to. The example of providing some flexibility for FMD vaccination has been discussed under CCIII.6.

No evidence was provided showing direct involvement of VS staff and regional bureaus in commenting towards the development or updating of OIE standards.

Ethiopia has employed the OIE PVS Tool as an effective avenue for improving their VS system to meet international standards for the quality of VS, through a self-evaluation conducted through a workshop with stakeholders in 2008. They have been working hard since to develop a VS Strategy and Performance Plan based on the self-evaluation, and have implemented many improvements in key areas (new legislation, VSB, education, MoUs, export certification systems). This PVS evaluation report reflects such progress. More active engagement with the full OIE PVS Pathway, including following up this mission with a PVS Gap Analysis mission is encouraged.

⁹ A country could be active in international standard setting without actively pursuing national changes. The capacity to implement changes nationally is an important element of this competency.

Strengths:

- Ethiopia's active participation in regional organisations.
- Existence of bilateral agreements with neighbouring countries such as Kenya.
- CVO was until recently President of the OIE Regional Commission for Africa.
- Active use of the OIE PVS Tool to develop VS strategy and undertake priority improvements over the last three years in line with international standards for the quality of VS.

Weaknesses:

- VS staff have little opportunity to comment on OIE issues.

Recommendations:

- Ethiopia should continue its active participation and cooperation in regional organisations and with OIE.
- VS staff capacity building on OIE standards including commenting on contemporary OIE issues should be invigorated and pursued. The situation regarding continued use of outdated OIE List A and List B diseases should be clarified.
- Ethiopia should engage with the full OIE PVS Pathway by requesting an OIE PVS Gap Analysis in the near future as part of the next step.

IV-4. International certification¹⁰ <i>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.</i>	Levels of advancement
	1. The VS have neither the authority nor the capability to certify animals, animal products, services or processes.
	2. The VS have the authority to certify certain animals, animal products, services and processes, but are not always in compliance with the national legislation and regulations and international standards.
	3. The VS develop and carry out certification programmes for certain animals, animal products, services and processes under their mandate in compliance with international standards.
	4. The VS develop and carry out all relevant certification programmes for any animals, animal products, services and processes under their mandate in compliance with international standards.
5. The VS carry out audits of their certification programmes, in order to maintain national and international confidence in their system.	

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): SJM6, HJS21-2, HJS33, P1140931-3, P1160030-47, P1160055-57.

Findings:

Ethiopia regularly exports meat and live animals (mainly sheep and goats) to countries in Middle East such as the Kingdom of Saudi Arabia, United Arab Emirates, Jordan, Yemen. Some exports are also made to Egypt, Sudan etc. Some trade based SPS measures have been put in place to provide sanitary assurance to importing countries, for both meat and live animals (cattle and shoats).

The policy approach to facilitate exports to date is to target sanitary measures at the point of entry into feedlots to either their point of live transportation over international borders or their point of slaughter and trade from approved export abattoirs. This has been termed “compartmentalisation” by the Ethiopians and their external partners, most significantly the SPS LMM project. However, this activity falls short of the OIE definition of compartmentalisation for trade as it does not cover the entire production chain (“farm to fork”) for this subpopulation including farm and markets of origin and including any inputs of sanitary significance (e.g. feed). The concept of “commodity-based trade” is being used to provide sanitary assurances relating to exports of Ethiopian meat. As a stepwise approach to providing export trade certainty these systems represent sensible policy and sanitary agreements based on the measures, which are regularly audited, have been accepted by current Middle Eastern trading partners, who also carry out audits.

The measures for live exports involve selecting at market only healthy animals, and identifying them with eartags as they enter feedlots licensed for export trade. Vaccinations for six diseases and sampling and testing for key diseases are undertaken, depending on specific market requirements. After one month, animals for export slaughter are then transferred to slaughterhouses licenced for export, where they undergo requisite antemortem and post mortem inspections. Animals for live export are transferred to quarantine facilities for a further period of one month, before the animals are officially certified for live transport to export markets.

The export feedlots and quarantine stations are privately owned but a government quarantine office (of which there are three in the country) oversees the quarantine trade facilitation process by conducting inspections and vaccinations, and certifying the animals as having met requirements. The quarantine stations are well managed and thorough record keeping is maintained, as required for the routine audits of the system by importing countries. Two new government owned quarantine stations are being built close to eastern borders at Mille and Haroessa, with the aim of expediting movement through transit countries (e.g. Djibouti and

10 Certification procedures should be based on relevant OIE and Codex Alimentarius standards.

Somalia) to their seaports and directly to the Middle East. There are risks relating to bilateral agreements with such transit countries to this end.

Unfortunately, none of this export certification activity is yet underpinned by legislation. A new proclamation will address this, entitled “Livestock and Livestock Products Import and Export Control”. This, along with a raft of other proclamations and regulations on meat safety, a VSB, animal disease control, veterinary drugs and traceability are currently before the Ethiopian Council of Ministers.

The next step to further improve sanitary measures in support of live animal and meat exports would involve extending the SPS LMM certification system to incorporate aspects relating to farm (or market) of origin. This more complete certification could be piloted, in line with the national or sub-national development of stronger field disease surveillance and control. For example, certification relating to on farm disease status (i.e. clinically healthy OR from a woreda without FMD in the last 6 months), or on farm vaccination status (i.e. vaccinated on farm on this date) could be trialled, accompanied by a practical identification system (ear tags or tail tags). Such methods would improve the likelihood of Ethiopia eventually gaining access to new markets for meat such as the EU, with even higher sanitary requirements than those in the Middle East.

Aside from these highly organised and officially certified exports of livestock and livestock products to the Middle East via neighbouring countries such as Djibouti, it is highly likely that a lot of livestock (and possibly livestock products) would formally and informally transit terrestrial borders with other African neighbours, even as part of the movements of nomadic pastoralists at remote border areas such as to the south and west of the country. Unfortunately no border posts in these remote regions were able to be visited due to time and/or security constraints.

Strengths:

- The development of a functioning, risk-based SPS export certification system for meat and live animals, as jointly developed between APHRD and SPS-LMM, and jointly implemented by APHRD and the private sector.
- Agreement by importing countries and auditing of the systems. Past audits have resulted in problems which have required rectification and have contributed to maintaining standards.
- Two export slaughterhouses are preparing for HACCP certification

Weaknesses:

- The proclamation on an updated export certification system is still awaiting central government approval.

Recommendations:

- APHRD should pursue the quick passage of draft legislative proclamations and regulations with the relevant authorities and institutions, including for import and export quarantine.
- Regular review of the SPS certification system for live animal and meat exports should be undertaken to ensure national consistency and adaptability to evolving disease situations (i.e. is vaccination against all six diseases in the export certification system risk based?).
- Better certainty is required in the relationship with transit countries around sanitary measures for export (i.e. exact implications of new official export quarantine stations).
- Further improvements to the SPS certification system incorporating aspects of animal farm (or market) of origin could be piloted, in line with stronger field surveillance and reporting.

IV-5. Equivalence and other types of sanitary agreements <i>The authority and capability of the VS to negotiate, implement and maintain equivalence and other types of sanitary agreements with trading partners.</i>	Levels of advancement
	1. The VS have neither the authority nor the capability to negotiate or approve equivalence or other types of sanitary agreements with other countries.
	2. The VS have the authority to negotiate and approve equivalence and other types of sanitary agreements with trading partners, but no such agreements have been implemented.
	3. The VS have implemented equivalence and other types of sanitary agreements with trading partners on selected animals, animal products and processes.
	4. The VS actively pursue the development, implementation and maintenance of equivalence and other types of sanitary agreements with trading partners on all matters relevant to animals, animal products and processes under their mandate.
5. The VS actively work with stakeholders and take account of developments in international standards, in pursuing equivalence and other types of sanitary agreements with trading partners.	

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): P1160036-43, P1160030-31, HJS34-35.

Findings:

As described in IV-4, APHRD has developed risk based export certification programmes based on relevant OIE and Codex Alimentarius standards. The systems have a total of 15 SOPs and guidelines to minimize procedural variations and promote quality practices within the certification system. This certification system has been discussed with national and international scientific experts and agreed to by inspectors from importing countries.

Despite the SOPs and basic rules applying throughout the system, there is some flexibility relating to certain animals and products, depending on their destination market. Such agreements have been negotiated through equivalence and sanitary agreements with trading partners. For example, the requirements for serological sampling and testing of animals destined for certain markets varies (e.g. FMD testing of cattle for the Egyptian market is very stringent).

Importing countries audit the certification system through regular visits to ensure compliance with their own agreed terms. During the PVS mission an Egyptian team was present on such an audit mission.

There is a need for Ethiopia to develop a solid sanitary agreement around quarantine needs and locations with transit countries for its Middle Eastern trade, such as Djibouti.

Sanitary agreements with neighbouring countries such as Kenya around harmonising border controls have been agreed upon, but major challenges exist with implementation on both sides due to the remote nature of these pastoralist areas.

Strengths:

- Agreement by Middle Eastern importing countries to risk based sanitary measures as negotiated with Ethiopia.
- Sanitary agreements with African neighbours about harmonising border controls (e.g. Kenya)

Weaknesses:

- Some export certification procedures seem less based on risk e.g. mandatory vaccination of all animals for export with six vaccines delivered by APHRD
- A need for a reliable agreement with transit countries such as Djibouti on relative quarantine arrangements for live animals destined for the Middle East.

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- Implementation of harmonised terrestrial border sanitary arrangements with countries like Kenya is a challenge due to the remote nature of the pastoralist region.

Recommendations:

- Regular risk based review of the certification system is necessary, given evolving disease and trading situations.
- Sanitary agreements could be further pursued to introduce an even strong risk based component to export certification e.g. do all cattle for all countries require all six vaccinations to be undertaken upon entering feedlots? Could the private owners undertake these vaccinations with some APHRD oversight (vaccination sero-surveillance), rather than APHRD having to undertake this massive task?
- Pursue a written agreement with transit countries that planned official quarantine of live animals in Ethiopia is acceptable and permits rapid, direct transit to seaports and out to importing countries.

IV-6. Transparency	Levels of advancement
<i>The authority and capability of the VS to notify the OIE of their sanitary status and other relevant matters (and to notify the WTO SPS Committee where applicable), in accordance with established procedures.</i>	1. The VS do not notify.
	2. The VS occasionally notify.
	3. The VS notify in compliance with the procedures established by these organisations.
	4. The VS regularly inform stakeholders 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 stakeholders, carry out audits of their transparency procedures.

Terrestrial Code reference(s): Annexe 1

Findings:

Ethiopia has a good record of OIE notification of different diseases outbreaks. This is a good indication of transparency. Exporters and importers are likely to be informed if sanitary conditions in the country changes.

Pastoralists were informed of RVF risks and biosecurity measures to undertake during neighbouring country outbreaks.

A stakeholder meeting of 108 participants was held in August 2010 and included a broad range of groups (though with little farmer representation – see CCIII.2) relating to development of new legislation and regulations that are currently before the Council of Ministers.

Strengths:

- Good OIE and WTO notification record

Weaknesses:

- Not all stakeholders are kept abreast of current developments in OIE, WTO & SPS.

Recommendations:

- Review the current lack of adequate consultations with stakeholders and design a comprehensive program for broad based and timely consultation.
- If Ethiopia has an ongoing concern relating to the OIE WAHID records relating to RVF, the OIE delegate should officially write to OIE seeking an amendment and stating its case.

IV-7. Zoning	Levels of advancement
<i>The authority and capability of the VS to establish and maintain disease free zones, as necessary and in accordance with the criteria established by the OIE (and by the WTO SPS Agreement where applicable).</i>	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 their stakeholders to define responsibilities and execute actions that enable it to establish and maintain disease free zones for selected animals and animal products, as necessary.
	5. The VS can demonstrate the scientific basis for any disease free zones and can gain recognition by trading partners that they meet the criteria established by the OIE (and by the WTO SPS Agreement where applicable).

Terrestrial Code reference(s): Annexe 1

Findings:

APHRD has stated that Ethiopia has no intentions of establishing and maintaining geographic subpopulations with a distinct health status within its territory for now. This is because the country for now lacks the legislative, financial and technical capability. Therefore currently no zoning activity is being undertaken in accordance with the criteria established by the OIE in the country.

Recommendations:

- Zoning is not recommended at this time due to likely unsuccessful implementation. However Ethiopia may wish to undertake a comprehensive study on zoning in the near future to enable the country to retain and expand its current export markets.

IV-8. Compartmentalisation <i>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)</i>	Levels of advancement
	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 have implemented biosecurity measures that enable it to establish and maintain disease free compartments for selected animals and animal products, as necessary.
	4. The VS collaborate with their stakeholders to define responsibilities and execute actions that enable it to establish and maintain disease free compartments for selected animals and animal products, as necessary.
	5. The VS can demonstrate the scientific basis for any disease free compartments and can gain recognition by other countries that they meet the criteria established by the OIE (and by the WTO SPS Agreement where applicable).

Terrestrial Code reference(s): Annexe 1

Evidence (references of documents or pictures listed in Appendix 6): SJM6

Findings:

The SPS-LMM export certification system for livestock and meat has been termed “compartmentalisation” or as using the concept of “compartmentalisation” by APHRD. However, this activity falls short of the OIE definition of compartmentalisation for trade as it does not properly cover the entire production chain (“farm to fork”) for this subpopulation including farm and markets of origin and including any inputs of sanitary significance (e.g. feed). Proper compartmentalisation requires fully integrated systems of production with very high levels of biosecurity control at all levels. At this stage, it is only really being trialled in very highly intensive systems of production such as with the fully commercial poultry, pig or ruminant production companies, who control all (or almost all) aspects of the production chain. Ethiopia currently lacks these types of large scale, integrated production systems. Therefore, currently in the country no compartmentalisation activity is being undertaken in accordance with the criteria established by the OIE, and there is little scope for this in the short to medium term.

Recommendations:

- Compartmentalisation is not recommended at this time due to a lack of fully integrated, intensive production systems. Studies on compartmentalisation may be worth undertaking if and when a large scale, commercial livestock sector develops.

PART IV: CONCLUSIONS

The OIE PVS mission conducted between 3 -17 May 2011 was very well organized and coordinated by the host country. The team was able to visit many areas in the country related to the prime objectives of the mission; as time and circumstances would permit. The willingness to provide relevant data and information in most instances was admirable. The degree of transparency and commitment was very well appreciated by the team.

The Federal Democratic Republic of Ethiopia is served by a dedicated *corps* of veterinary professionals and paraprofessionals who are generally well educated and motivated in the pursuit of their professional duties. The basic command structure of the VS in Ethiopia is decentralized. Efforts have been made by APHRD to coordinate VS responsibilities and activities and improve line management, for example, through the signing of MoUs on issues relating to coordination of TADs prevention and slaughterhouse hygiene and inspection.. Strengthening the technical chain of command such as through singular CVO responsibility in emergency response legislation and/or with structural changes separate from plant health such as piloted in the Oromia region should be pursued.

The Ethiopian Veterinary Service is reasonably well resourced in terms of finances and the availability of physical infrastructure. However, the heavy reliance on government funding, inclusive of field and laboratory activities, does not augur well for long term sustainability. The dependence of the current level of performance of the veterinary service on sustained levels of government funding is vulnerable to future government budgetary cuts. Furthermore, with the highest livestock population in Africa [now that Sudan is officially split into two countries], the importance of the VS to support livestock to make an even greater contribution to the economy of Ethiopia and the livelihoods of its people cannot be over emphasized. The VS alone cannot effectively provide the required professional animal health coverage. Therefore, a greater focus on cost recovery mechanisms, delegation of some level of official functions of the VS to the private veterinary sector and other “quasi-privatisation” approaches, could be explored, in line with the stated government policy on privatisation of field VS.

The diagnostic laboratory system is well established in Ethiopia with Quality Management Systems and relevant ISO accreditation being actively pursued. Currently residue analysis for hormones, heavy metals, antibiotics and pesticides are not carried out. It is expected that the laboratories being constructed in Kaliti for this purpose, will be completed in time to serve the critical need for analysis for product safety. There is the need to strengthen technical and collaborative relationships between the Ministry of Health and Veterinary Services of Ethiopia, under the overarching framework of the “One Health” concept. This is critical if Ethiopia is to sufficiently address the global threat of emerging infectious diseases, including Zoonoses.

Over the past decade, the number of veterinary schools in Ethiopia has grown from one to nine. With such rapid growth comes a risk relating to maintaining educational and professional standards in teaching and in professional practice. A key mechanism to improve the situation remains the immediate establishment of a VSB which will set the requisite academic standards and ensure strict adherence to professional standards and practices. Ethiopia has gone a long way towards this requirement with completed proclamations which now need urgent political approval. The VSB should also cater for the training of paraprofessional cadre so as to continue rendering essential animal health services to the remote parts of the country. To ensure that the performance of the veterinarians is of the highest level commensurate with international standards, the VSB must consider the institution of the award of continuing education points and make this mandatory for veterinarians in both the government and private sectors.

Some key gaps still exist and should be the focus for the immediate future. These include; getting new legislations enacted and implemented, building field staff technical capacity, facilitating farmer representation and consultation, improving consistency of slaughterhouse

hygiene and inspection, implementing an electronic animal health information system, and introducing residue testing, animal product (milk) safety measures, and livestock and product traceability in Ethiopia. Risk analysis plays a significant role in trade relations with importing countries on live animals and livestock products exports. It should also provide the technical basis for the progressive prevention and control of TADs, such as relevant to vaccine deployment. There is the need to institutionalize this position by specifically training someone as a specialist in risk analysis, and providing basic, tailored training for regional and woreda level staff.

The VS should interact with all stakeholders in the livestock industry. Currently the export market stakeholders appear to be consulted on a regular basis. Consultations with grassroots stakeholders (farmers) should be encouraged in a systematic manner so as to obtain maximum cooperation and inputs for the design and implementation of livestock health related policies. A major driver for the ongoing developments in the Ethiopian VS is to facilitate the country's significant potential for increases in livestock and livestock product exports. Ethiopia already exports a significant amount of live animals and animal products to the Middle East. The current measures being put in place such as the improvements in abattoir capacity and compliance with international inspection standards are steps in the right direction.

In the modern era, the role played by information technology is an indispensable attribute of progress in many human endeavours. The use of IT systems and mobile telephone devices in data transmission and in animal disease surveillance activities, are essential prerequisites for the effective functioning of the VS. Considering the vast territorial size of Ethiopia and the enormity of the livestock population, the regular use of such devices will go a long way in improving the technical capacity of the VS.

The government is encouraged to further engage with the OIE PVS Pathway to assist in further refining their planning and implementation strategies.

PART V: APPENDICES

Appendix 1: Terrestrial Code references for critical competencies

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

	<ul style="list-style-type: none"> ➤ Point 1 of Article 3.2.4. Evaluation criteria for quality systems. ➤ Point 3 of Article 3.2.6. Evaluation criteria for material resources: Technical. ➤ Point 5 of Article 3.2.14. Laboratory services.
II.3	<ul style="list-style-type: none"> ➤ Chapter 2.1. Import risk analysis
II.4	<ul style="list-style-type: none"> ➤ Points 6 and 9 of Article 3.1.2. Fundamental principles of quality: Veterinary legislation / Procedures and standards. ➤ Point 2 of Article 3.2.7. Legislation and functional capabilities: Export/import inspection. ➤ Points 6 and 7 of Article 3.2.14. Veterinary legislation, regulations and functional capabilities / Animal health and veterinary public health controls.
II.5.A II.5.B	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Points 1-3 of Article 3.2.8. Animal health controls: Animal health status / Animal health control / National animal disease reporting systems. ➤ Sub-points a) i), ii) and iii) of Point 7 of Article 3.2.14. Animal health: Description of and sample reference data from any national animal disease reporting system controlled and operated or coordinated by the Veterinary Services / Description of and sample reference data from other national animal disease reporting systems controlled and operated by other organisations which make data and results available to Veterinary Services / Description and relevant data of current official control programmes including:... or eradication programmes for specific diseases.
II.6 II.7	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Points 1-3 of Article 3.2.8. Animal health controls: Animal health status/Animal health control/National animal disease reporting systems. ➤ Sub-point a) of Point 7 of Article 3.2.14. Animal health and veterinary public health controls: Animal health.
II.8.A II.8.B	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Points 1-5 of Article 3.2.9. Veterinary public health controls: Food hygiene / Zoonoses / Chemical residue testing programmes / Veterinary medicines/ Integration between animal health controls and veterinary public health. ➤ Points 2, 6 and 7 of Article 3.2.14. National information on human resources / Veterinary legislation, regulations and functional capabilities / Animal health and veterinary public health controls. ➤ Chapter 6.2. Control of biological hazards of animal health and public health importance through ante- and post-mortem meat inspection.
II.9	<ul style="list-style-type: none"> ➤ Points 6 and 9 of Article 3.1.2. Fundamental principles of quality: Veterinary legislation / Procedures and standards. ➤ Points 3 and 4 of Article 3.2.9. Veterinary public health controls: Chemical residue testing programmes / Veterinary medicines. ➤ Sub-point a) ii) of Point 6 of Article 3.2.14. Animal health and veterinary public health: Assessment of ability of Veterinary Services to enforce legislation. ➤ Chapters 6.6. to 6.10. Antimicrobial resistance.
II.10	<ul style="list-style-type: none"> ➤ Points 3 and 4 of Article 3.2.9. Veterinary public health controls: Chemical residue testing programmes / Veterinary medicines. ➤ Sub-points b) iii) and iv) of Point 7 of Article 3.2.14. Veterinary public health: Chemical residue testing programmes / Veterinary medicines. ➤ Chapters 6.6. to 6.10. Antimicrobial resistance.
II.11	<ul style="list-style-type: none"> ➤ Points 7 and 9 of Article 3.1.2. Fundamental principles of quality: General organisation / Procedures and standards. ➤ Point 1 of Article 3.2.7. Legislation and functional capabilities: Animal health, animal welfare and veterinary public health.
II.12	<ul style="list-style-type: none"> ➤ Points 7 and 9 of Article 3.1.2. Fundamental principles of quality: General organisation / Procedures and standards. ➤ Point 3 of Article 3.2.8. Animal health controls: National animal disease reporting

	<p>systems.</p> <ul style="list-style-type: none"> ➤ Sub-point f) of Point 4 of Article 3.2.10. Veterinary Services administration: Formal linkages with sources of independent scientific expertise. ➤ Points 6 and 7 of Article 3.2.14. Veterinary legislation, regulations and functional capabilities / Animal health and veterinary public health controls.
II.13.A II.13.B	<ul style="list-style-type: none"> ➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➤ Chapter 4.1. General principles on identification and traceability of live animals. ➤ Chapter 4.2. Design and implementation of identification systems to achieve animal traceability.
II.14	<ul style="list-style-type: none"> ➤ Chapter 7.1. Introduction to the recommendations for animal welfare ➤ Chapter 7.2. Transport of animals by sea ➤ Chapter 7.3. Transport of animals by land ➤ Chapter 7.4. Transport of animals by air ➤ Chapter 7.5. Slaughter of animals ➤ Chapter 7.6. Killing of animals for disease control purposes
III.1	<ul style="list-style-type: none"> ➤ Point 13 of Article 3.1.2. Fundamental principles of quality: Communication. ➤ Sub-point b) of Point 2 of Article 3.2.6. on Administrative resources: Communications. ➤ Point 4 of Article 3.2.14. Administration details.
III.2	<ul style="list-style-type: none"> ➤ Point 13 of Article 3.1.2. Fundamental principles of quality: Communication. ➤ Point 2 of Article 3.2.3. Evaluation criteria for the organisational structure of the Veterinary Services. ➤ Point 4 and Sub-point g) of Point 9 of Article 3.2.14. Administration details and on Sources of independent scientific expertise.
III.3	<ul style="list-style-type: none"> ➤ Article 3.2.11. Participation in OIE activities. ➤ Point 4 of Article 3.2.14. on Administration details.
III.4	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Point 7 of Article 3.2.3. Evaluation criteria for the organisational structure of the Veterinary Services.
III.5.A III.5.B	<ul style="list-style-type: none"> ➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➤ Point 9 of Article 3.2.1. General considerations. ➤ Article 3.2.12. Evaluation of the veterinary statutory body.
III.6	<ul style="list-style-type: none"> ➤ Points 6 and 13 of Article 3.1.2. Fundamental principles of quality: Veterinary legislation / Communication. ➤ Points 2 and 7 of Article 3.2.3. Evaluation criteria for the organisational structure of the Veterinary Services. ➤ Point 7 of Article 3.2.14. Animal health and veterinary public health controls.
IV.1	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Points 1 and 2 of Article 3.2.7. Legislation and functional capabilities: Animal health, animal welfare and veterinary public health / Export/import inspection. ➤ Point 6 of Article 3.2.14. Veterinary legislation, regulations and functional capabilities.
IV.2	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Points 1 and 2 of Article 3.2.7. Legislation and functional capabilities: Animal health, animal welfare and veterinary public health / Export/import inspection. ➤ Point 6 of Article 3.2.14. Veterinary legislation, regulations and functional capabilities.
IV.3	<ul style="list-style-type: none"> ➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➤ Article 3.2.11. Participation in OIE activities. ➤ Points 6 and 10 of Article 3.2.14. Veterinary legislation, regulations and functional

	capabilities / Membership of the OIE.
IV.4	<ul style="list-style-type: none"> ➤ Points 6, 7 and 9 of Article 3.1.2. Fundamental principles of quality: Veterinary legislation / General organisation / Procedures and standards. ➤ Point 2 of Article 3.2.7. Legislation and functional capabilities: Export/import inspection. ➤ Sub-point b) of Point 6 of Article 3.2.14. Veterinary legislation, regulations and functional capabilities: Export/import inspection. ➤ Chapter 5.2. Certification procedures. ➤ Chapters 5.10. to 5.12. Model international veterinary certificates.
IV.5	<ul style="list-style-type: none"> ➤ Points 6 and 7 of Article 3.1.2. Fundamental principles of quality: Veterinary legislation / General organisation. ➤ Sub-point g) of Point 4 of Article 3.2.10. Veterinary Services administration: Trade performance history. ➤ Chapter 5.3. OIE procedures relevant to the Agreement on the Application of Sanitary and Phytosanitary Measures of the World Trade Organization.
IV.6	<ul style="list-style-type: none"> ➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➤ Points 1 and 3 of Article 3.2.8. Animal health controls: Animal health status / National animal disease reporting systems. ➤ Chapter 5.1. General obligations related to certification.
IV.7	<ul style="list-style-type: none"> ➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➤ Chapter 4.3. Zoning and compartmentalisation.
IV.8	<ul style="list-style-type: none"> ➤ Point 6 of Article 3.1.2. on Fundamental principles of quality: Veterinary legislation. ➤ Chapter 4.3. Zoning and compartmentalisation. ➤ Chapter 4.4. Application of compartmentalisation.

Appendix 2: Glossary of terms

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

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.

Emerging disease

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

Equivalence of sanitary measures

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

International veterinary certificate

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

Laboratory

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

Notifiable disease

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

Official control programme

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

Official Veterinarian

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

Official veterinary control

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

Risk analysis

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

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 to those who need to know so that action can be taken.

Terrestrial Code

means the OIE Terrestrial Animal Health Code.

Veterinarian

means a person 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 authority regulating veterinarians and veterinary para-professionals.

Appendix 3. List of persons met or interviewed

Date	Name	Position	Institution
OPENING MEETING – PVS TEAM TOGETHER			
03/05/11	Wondirad Mandefro	State Minister	MOA/ETHIOPIA
03/05/11	William Amanfu	PVS Team leader	OIE/PVS
03/05/11	Junaidu Maina	PVS Technical Expert	
03/05/11	John Stratton	PVS Technical Expert	
03/05/11	Amsalu Demissie (Dr.)	S/TADs Expert	MoA/APHRD
03/05/11	Nega Tewolde (Dr.)	Senior epidemiologist	SPS-LMM
03/05/11	Wondwosen Asfaw (Dr.)	SPS-LMM Team Leader	SPS-LMM
03/05/11	Edmealem Shitaye (Dr.)	D/AED	MoA/AED
03/05/11	Teshome Bekele (Dr.)	A/APHRD	MoA/APHRD
03/05/11	Darsema Guluma (Dr.)	S/Expert	
03/05/11	Melesse Balcha (Dr.)		
03/05/11	Samuel Mulat (Dr.)	S/Expert	
FIELD VISITS, MEETINGS AND INTERVIEWS ADDIS ABABA AND DEBRE ZEIT MEETINGS, 3-9 MAY 2011 : PVS TEAM TOGETHER			
NAHDIC/MoA Sebeta ETHIOPIA			
03/05/11	Mesfin Sahle (Dr.)	Director	NAHDIC/MoA
03/05/11	Getenet Abie (Dr.)	Coordinator for Animal Disease Inv. & Research	
03/05/11	Amsalu Demissie (Dr.)	S/TADs Expert	MoA/APHRD
03/05/11	Darsema Guluma (Dr.)	S/Epidemiologist	
APHRD/MOA Epidemiology Unit			
03/05/11	Yismashewa Wegayehu (Dr.)	S/TADs Expert	MoA/APHRD
03/05/11	Abera Zeinu	IT	Private
03/05/11	Senait Abate	Data Incoder	MoA/APHRD
03/05/11	Amsalu Demissie (Dr.)	S/TADs Expert	
EMDTI/Debre Zeit ETHIOPIA			
04/05/11	Ghiday G/Medhin	G/Director	EMDTI
04/05/11	Biruk Getachew	Senior Expert	
04/05/11	Henok Mechal	Senior Expert	
04/05/11	Tesfaye Lemma	Senior Expert	
NVI/Debre Zeit			
04/05/11	Martha Yami (Dr.)	Director	NVI
04/05/11	Esayas Gelaye (Dr)	Vaccine Pro Manager	
PANVAC/Debre Zeit			
04/05/11	Ethel Chitscingo	Lab Technician	PANVAC
04/05/11	Abreham Meshesha	Finance & Admin	
04/05/11	Nick Nwankpa (Dr.)	Senior Vet Vaccine Officer	
04/05/11	Bodjo Sanne (Dr.)	Senior Biol. Project Officer	
Freshport PL/Addis Ababa			
05/05/11	Tesfamichael Mekoya	G/Manager	
Private Veterinarian/Drug Importer			
05/05/11	Daginet Yimenu (Dr.)	G/Manager	Damitit Vet Pharma Trading
SPS-LMM Project Addis Ababa			
05/05/11	Nega Tewolde (Dr.)	Vet. Epide	SPS-LMM
05/05/11	Laikemariam Yigazu (Dr.)	Vet	
05/05/11	Wondwosen Asfaw	SPS Team Leader	
Exporter's Associations Addis Ababa			
05/05/11	Tamerat Ejigu	Sec/General	EMPEA
05/05/11	Shebeshi Teshome	G/Manager	ELTA
Bole Airport Quarantine Station MoA/APHRD			
05/05/11	Yohannes G/Mariam (Dr.)	S/Vet /Inspector/ /Coordinator/	MoA/APHRD
05/05/11	Getaneh Bahiru (Dr.)	Vet/Inspector	
05/05/11	Gesesse Yimar	Lab. Techn	
05/05/11	Amsalu Urda	Inspector	
05/05/11	Gebyanesh Ayana	Inspector	
05/05/11	Almaz Eshete	Inspector	
Modjo Modern Abattoir			
06/05/11	Ayele Dejene	Owner	Modjo Modern Abattoir
06/05/11	Abebe Tesma	D/Director	

06/05/11	Yoseph Tamir	S/Vet /Inspector (Coordinator)	MoA/APHRD
Adama Quarantine Office (Nazareth Ethiopia)			
06/05/11	Kimya Mohammed (Dr.)	S/Vet (Coordinator)	MoA/APHRD
06/05/11	Tigist Yemar (Dr.)	S/Vet	
06/05/11	Negash Lemlem	Lab/Techn	
06/05/11	Abebe T/Aregay	Ass/Vet	
06/05/11	Fitsum Girmay	Ass/Vet	
Feedlot Quarantine Station			
06/05/11	Kumlachew Belay (Dr.)	Tech/Manager	Tewodros Teshome
06/05/11	Yilkal Kebede (Dr.)	Vet	Feedlot
06/05/11	Eshete Shibeshi	Manager	Bezabih Feedlot
Hashim Nuru Export Abattoir (Debrezeit/ETHIOPIA)			
06/05/11	Adgolign Mitku (Dr.)	Manager	Hashim Nuru Abattoir
06/05/11	Elias Dessie (Dr.)	S/Vet/Inspector (Coordinator)	MoA/APHRD
06/05/11	Khalid Hashim	Marketing Manager	Hashim Nuru Abattoir
06/05/11	Getachew Daka	Inspector	MoA/APHRD
06/05/11	Kahsay Gebru	Inspector	
Ethiopian Veterinary Association (EVA)			
09/05/11	Berhanu Admassu (Dr.)	President	EVA
09/05/11	Berhe G.EGziabher (Dr.)	Former Director APHRD	MoA
09/05/11	Thomas Cherenet (Dr.)	V/President	EVA
09/05/11	Fisseha Abenet (Dr.)	G/Manager	
09/05/11	Girma Zeleke (Dr.)	Director	
09/05/11	Henok Wendirad (Dr.)	PR Director	
09/05/11	Yoseph Shiferaw(Dr.)	Secretary	
09/05/11	Samuel Mulat (Dr.)	Quarantine Expert	MoA/APHRD
09/05/11	Darsema Gulima (Dr.)	Epidemiologist	
Brooke Ethiopia			
09/05/11	Bodjia Emdebu (Dr)	Director	Donkey Sanctuary Ethiopia
09/05/11	Tseguereda Abraham	Vet Project Coordinator	Brooke Ethiopia
09/05/11	Ayele Gizachew (Dr)	National Vet. Advisor	
09/05/11	Suzan BISHOP	Country Director	
FAO			
09/05/11	Getachew Abebe (Prof)	Livestock Expert	National FAO Office
09/05/11	Emmanuelle Guerne Bleich	Livestock Expert	Reginal FAO Office
09/05/11	Gijs Van't Klooster (Dr)	Livestock Team leader	FAO
NORTHERN FIELD TRIP, 10-15th MAY 2011 – WILLIAM AMANFU ONLY			
Amhara Regional Bureau (Bahir Dar)			
11/05/11	Ato Gedu Andargachew	Deputy President of ANRS and Head of BoA	Bureau of Agriculture (BoA)
11/05/11	Ato Alemu Admas	D/Head of BoA	
11/05/11	Ato Kassahun Tessega	Quarantine & Inspection Process Owner	
11/05/11	Dr Abebe Mitiku	Animal Health Expert	
11/05/11	Dr Solomon Hailemariam	Animal Health Expert	
11/05/11	Dr Zeleke Gebre-egziabher	Animal Health Expert	
11/05/11	Dr Zewdu Belay	Animal Health Expert	
11/05/11	Dr Wubet Sinishaw	Animal Health Expert	
11/05/11	Ato Endale Lemma	Animal Products Expert	
Bahir Dar Regional Veterinary Lab			
11/05/11	Dr Nuria Yideg	Head of the Laboratory	Bahir Dar Regional Vet Lab
11/05/11	Meseret Admasu	Microbiology team leader	
11/05/11	Ato Laikemariam Teshome	Microbiology Research Officer	
11/05/11	Dr Gebreyesus Mekonnen	Epidemiology team Leader	
11/05/11	Dr Almaz Habtamu	Pathology team leader	
11/05/11	Ato Getachew Belachew	Helminthology team leader	
11/05/11	Ato Tadlo Mazengia	Laboratory Technologist	
11/05/11	Habtamu Kefyalew	Senior Laboratory Technician	
11/05/11	Ato Elias Demissie	Senior Laboratory Technician	
11/05/11	W/o Woynshet Amsale	Senior Laboratory Technician	
11/05/11	W/o Mulu Araya	Sample Receptionist	
Bahir Dar Artificial Insemination Center			
11/05/11	Ato Andualem Fekadu	Representative of the head	Bahir Dar AI Center
11/05/11	Dr Dereje Belay	Veterinarian	
11/05/11	Ato Gebreyohannes Zewdie	AI Expert	

ASRAF Export Abattoir			
11/05/11	Dr Assegid Shiferaw	Abattoir Manager	ASRAF Export Abattoir
11/05/11	Dr Habtamu Mekonnen	Veterinarian	
11/05/11	Dr Mengsteab Anebo	Fattening Manager	
11/05/11	Dr Kassaye Erkihun	Meat Inspection Team Leader	
11/05/11	Ato Abera Bitew	Meat Inspector	
Woreta Private Veterinary Clinic and Drug Shop			
12/05/11	Dr Getaneh Sahle	Owner and Practitioner	Woreta Veterinary Clinic
12/05/11	Dr Hagernesh Addis	Practitioner	Fogera Vet Drug Shop
12/05/11	W/o Abebech muchie	Pharmacist	
Mersa Tannery and Woreda Veterinary Clinic			
13/05/11	Mr V. Ventaniah	Manager	Mersa Tannery
13/05/11	Dr Seid Endris	Veterinarian	Woreda Agricultural Office
13/05/11	Ato Zegeye Yineta	Assistant Vet	
13/05/11	Ato Endris Mohammed	Assistant Vet	
Dersie University – Veterinary Faculty			
13/05/11	Prof. A. Asmere	Veterinarian – Vice President of Univesity	
Kombolcha Regional Veterinary Laboratory			
14/05/11	Dr Girma Abeta	Head of the lab	Regional Vet Lab
14/05/11	Dr Shimeles Abegaz	Helminthology team leader	
14/05/11	Dr Seyoum Zewdie	Vector & Vector borne team leader	
14/05/11	Ato Wondwosen Kumilachew	Microbiology lab expert	
14/05/11	Ato Nigussie Tefera	Epidemiology lab expert	
14/05/11	Ato Walle Abate	Senior lab technician	
14/05/11	W/o Mestewat Dinka	Senior lab technician	
14/05/11	Ato Zewdie Abebe	Senior lab technician	
14/05/11	Ato Bekele Tilahun	Senior lab technician	
14/05/11	Ato Mesfin Geleta	Epidemiology lab expert	
Kombolcha Tannery			
14/05/11	Ato Ali Mohammed	Acting Manager	Kombolcha Tannery
14/05/11	Ato Mesfin Yikunoamlak	Production Manager	
Kombolcha ELFORA Abattoir			
14/05/11	Dr Haregua Teshome	Inspection team leader	Bureau of Agriculture
14/05/11	Ato Birhan Abiot	Meat inspector	
14/05/11	Ato Tesfaye Sahle	Meat inspector	
14/05/11	Ato Ali Shifaw	Manager	ELFORA Abattoir
Kombolcha Poultry Breeding and Multiplication Center			
14/05/11	Dr Minte Assefa	Coordinator	KP BMC
14/05/11	Tesfaye Dessalew	Center Manager	
14/05/11	W.o Kelemwork Mekonnen	Vet Assistant	
Debre Berhan Sheep Breeding Improvement and Multiplication Center			
15/05/11	Ato Abayneh Tiruneh	Center Manager	DBSBIMC
15/05/11	Ato Teklewold Tadesse	Animal Breeding Expert	
15/05/11	Ato Samson Debebe	Animal Health Assistant	
Debre Berhan Agricultural Research Center			
15/05/11	Dr Solomon Gizaw	Senior Researcher (Livestock Research Team Leader)	DBARC
15/05/11	Dr Musa Yalew	Junior Researcher (Vet)	DBARC
ADDIS ABABA & EASTERN REGION FIELD TRIP, 10-15th MAY 2011 – JUNaidu MAINA ONLY			
Oromiya Livestock Development, Health & Marketing Agency			
10/05/11	Sahelu Mulu	Head Agency	Livestock Dev't, Health & Marketing Ag
10/05/11	Mekonnin Tilahun (Dr)	Vet. Head	
10/05/11	Negusie Regassa (Dr)	Vet. Expert	
10/05/11	Tesfaye Alamu	Vet. Expert	
10/05/11	Teshome Jagema	Vet. Expert	
Oromiya Pastoral Area Development Commission			
10/05/11	Tesfaye Bekele (Dr)		OPADC
10/05/11	Belay Waggari		
Adaa Woreda Veterinary Clinic			
10/05/11	Yoseph Shuremo Ianko (Dr.)	Veterinarian	Adaa Woreda Liv Agency
10/05/11	Tsige G/Michael (Dr.)	Veterinarian	
10/05/11	Abeba Teshoma	Vet Assistant	

Adama Woreda Veterinary Clinic			
10/05/11	Tadesse Getu (Dr.)	Clinic Head	Adama Woreda Livestock Agency Office
10/05/11	Ahmed Nur (Dr.)	Veterinarian	
10/05/11	Taye Solomon (Dr.)	Veterinarian	
10/05/11	Sefefyelesh Zeleke	Vet Assistant	
10/05/11	Asefa Sima	Vet Assistant	
10/05/11	Jibril Beker	Vet Assistant	
10/05/11	Mogas Alamu	Vet Assistant	
10/05/11	Addisalem Tamirat	Vet Assistant	
10/05/11	Taffa Bira	Vet Assistant	
Animal Health & Development Agency Zonal Office, Chiro, Tullo Wareda & Hirna Regional Laboratory			
11/05/11	Kassahu Tarfassa	Head	Zonal Office
11/05/11	Abraham Tsehay (Dr.)	Veterinarian	Chiro Woreda
11/05/11	Mesfin Yilma	A/H Assistant	
11/05/11	Beliyu Asefa	" "	
11/05/11	Waynshat Gbbc	" "	
11/05/11	Asagid Bogale		
11/05/11	Mohammed Usmael	Meat Inspector	
11/05/11	Bakele Talen (Dr.)		
11/05/11	Yassn Usmau	A/H Assistant	
11/05/11	Belaynesh Asfaw	" "	
11/05/11	Mohammed Ali	" "	
11/05/11	Getahun Muluneh	" "	
11/05/11	Bekele Biru (Dr.)	Head	Hirna Lab
11/05/11	Ketema Bogale (Dr.)	Dpt. Head	
11/05/11	Shimelis Asress	Senor Lab Technician	
11/05/11	Wondwasen G/Amlak	" "	
11/05/11	Bekele Bayeta	" "	
11/05/11	Shibre Araya	" "	
Dire Dawa Agriculture Office			
11/05/11	Derara Huka (Dr.)	Epidemiology Head	Agriculture Office
11/05/11	Yunus Abdurhman (Dr)	Head	Dire Dawa Regional Lab
11/05/11	Ketema Zelak	Expert	
11/05/11	Abeba Demisse (Dr)	Vet.	
11/05/11	Maria Silla	S/Lab Technician	
11/05/11	Demeke Tadess (Dr.)	Meat Inspector	Agriculture office
Dire Dawa Quarantine Station			
12/05/11	Ketema Ayele (Dr.)	Veterinarian	APHRD/MoA
12/05/11	Mulugeta Tsegaye	Inspector	
12/05/11	Ababu Lakew	A/H/Assistant	
12/05/11	Addis Ephrem	Lab. Technician	
Haramaya University			
13/05/11	Desta Beyene (DVM, MSc.)	Dean, Faculty of Veterinary Medicine	
Harari Bureau of Agriculture			
13/05/11	Abdulaziz Mohammed	D/Head	Agr & Rural Dev. Bureau
13/05/11	Mohammed Redwan (Dr.)	Regional Vet Officer	Harari BoA
Somali Regional Bureau of Livestock & Crop Resources			
14/05/11	Mohammed Ibrahim (Dr.)	Process owner	LCRDB
14/05/11	Tefferu Sima (Dr.)	Clinical field officer	
14/05/11	Ahmed Ziad	Vet. Lab Diagnostic officer	Regional Vet. Lab
14/05/11	Mohammed Abdula	Vet Lab Diagnostic officer	
14/05/11	Omar Mohammed (Dr.)		
14/05/11	Ahmed Yusuf	Lab Technician	
14/05/11	Abdufelah Omar (Dr.)	Lab sub process owner	
14/05/11	Mowlid Hussien	Lab Technologist	
14/05/11	Eshetu Zewdie	Lab Technology Officer	
14/05/11	Mulu W/Medhin	Lab Technologist	
Jig Jiga University/Faculty of Veterinary Medicine			
14/05/11	Dagnachew Demissie	Dean	
SOUTHERN OROMIYA & SNNP REGION FIELD TRIP, 10-15th MAY 2011 – JOHN STRATTON ONLY			
South Tsetse Eradication Project (STEP) – Kality Fly Rearing and Irradiation Centre			
10/05/11	Dr. Terzu Daya	Head of STEP	STEP
Oromiya Regional Animal Health and Livestock Development Agency (ORAHDLA)			

10/05/11	Dr. Sahlu Mulu	Head of Agency	ORAH LDA
	Dr. Mekonnen Tilahun	Vet Head	
	Dr. Nigusse Regassa	Vet Expert	
	Dr. Tesfaye Alemu	Vet Expert	
	Dr. Teshome Jagema	Vet Expert	
<u>Oromiya Pastoral Area Development Commission</u>			
10/05/11	Dr. Belay Wagari	Head	
	Dr. Tesfaye Bekele	Vet Expert	
<u>Debre Zeit Veterinary Clinic</u>			
10/05/11	Dr. Yoseph Shuramo	Head	
	Dr. Tsige G/mariam	Vet Expert	
	Mrs.	AHA	
<u>Ethioflora Dairy Farm</u>			
11/05/11	Mr. Mulugeta Abebe	Owner	
	Mr.	AHA	
<u>Outbreak Investigation team Adamitulu Jido Kombolcha woreda</u>			
11/05/11	Dr. Hailu	Assela Regional Lab Head	
	Dr. Asrat Yirga	Wereda vet	
	Mr. Sharew	Assela Regional Lab technician (AHA)	
<u>Alage Agricultural Technical and Vocational Education and Training College</u>			
11/05/11	Mr. Oumer Wabe	College Dean	
	Dr. Kebede Beyecha	Academic Vice Dean	
	Dr. Solomon Tsegaye	Animal Head Department Dean	
	Mr. Yassin Jamal	Registrar	
<u>Arsi Negele Veterinary Clinic</u>			
11/05/11	Mr. Abdo Husen	Head of Livestock Development and Health office	
	Mr. Oshoru Ereso	Head office A/Negele	
	Mr. Nigusse H/Gabriel	Vice administrator of A. Negele wereda	
	Mr. Gudeta Abebe	Team leader of Animal Health	
	Dr. Cherinet Abera	Wereda Vet	
	Dr. Kebede Mekonin	Onal vet	
	Teshite Eresso	Meat Inspector	
<u>SNNP Regional Bureau of Agriculture</u>			
12/05/11	Mr Sani Redi	Head of Bureau and vice president of the regional State	
	Mr. Desta Gabriel	Deputy head Agriculture Bureau and LSR Process owner	
	Dr. Solomon Mekuria	Representative of veterinary head	
<u>Hawassa Poultry Multiplication Center</u>			
12/05/11	Mr. Nigusse Negash	Farm Manager	
	Dr. Kalkidan Wondimu	Farm Vet	
	Mr. Aynalem Bekele	Farm AHA	
<u>Hawassa School of Veterinary Science</u>			
12/05/11	Unfortunately names not recorded		
<u>Yabello Regional Veterinary Laboratory (Oromiya Region)</u>			
13/05/11	Dr. Getachew Gutema	Head of lab	
	Dr. Wubishet Zewde	Microbiology Head	
	Dr. Gurara Megenesso	Epidemiology Head	
	Dr. Ararsa Duguma	Parasitology head	
	DR. Garu Lalo	Parasitology Expert	
<u>Utuba Gumi International Trade Share Company</u>			
13/05/11	Mr. Gelgelo Guyo	Vice	
<u>Yabello Zone Pastoral Area Development Commission</u>			
13/05/11	Dr. Bulla Mengesha	Vet of the commission	
	Dr. Roba Gimbi	Vet of zonal Agency	
<u>Sodo Regional Veterinary Lab</u>			
15/05/11	Dr. Amenu Asha	Head	
	Dr. Asnake Fekadu	Animal Survey team coordinator	
	Dr. Tamrat Tomas	Lab team coordinator	
<u>Animal Health Post Hassana</u>			
15/05/11	Miss Ayelech Erbetu	AHA	
<u>Butajira Municipality Slaughter Slab</u>			
15/05/11	Shemsu Awoi	AHA meat inspector	
	Kemal Tekla	Slaughterman	

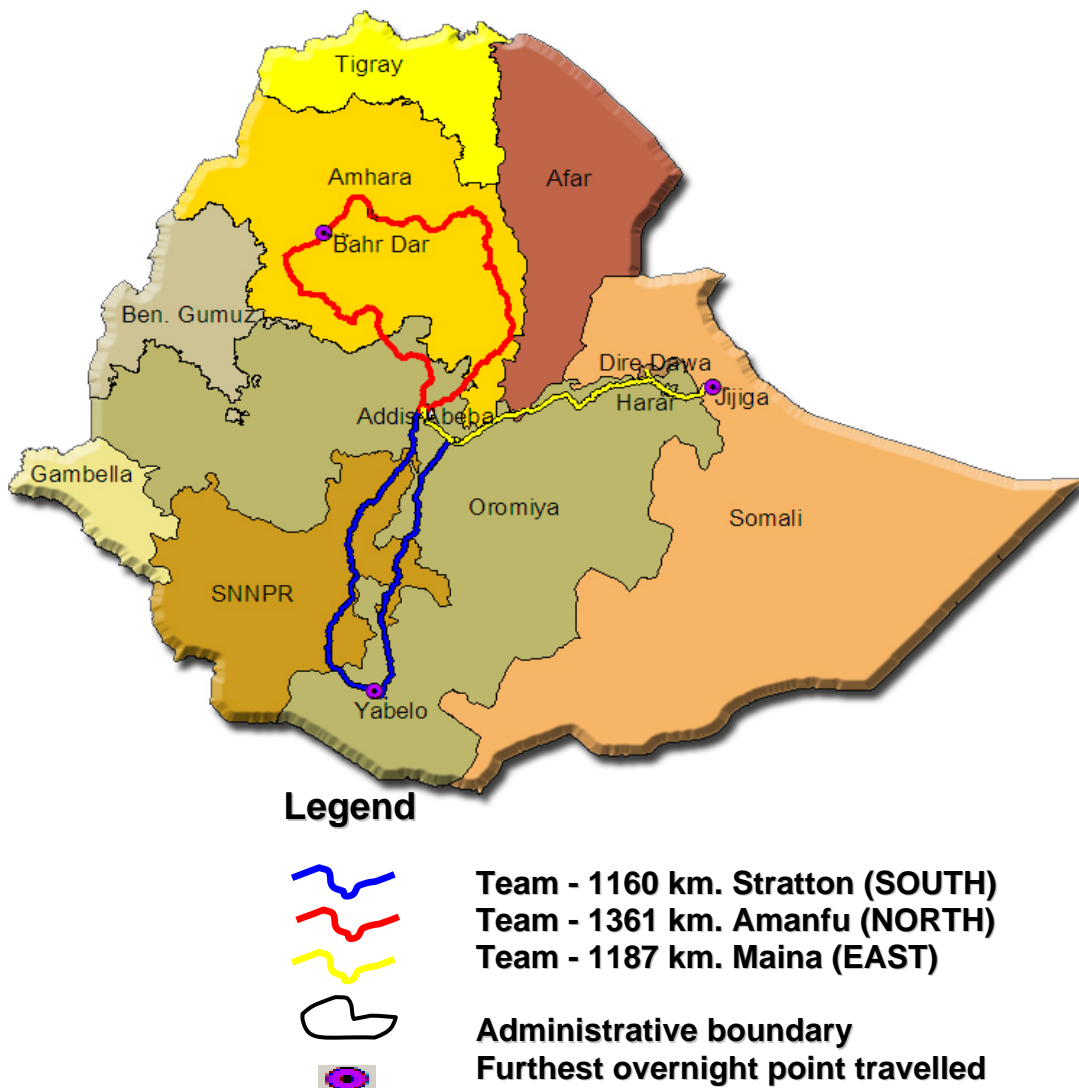
Butajira Type C vet Clinic and Revolving Fund Scheme			
15/05/11	Mr Msfin	AHA	
Closing Meeting 17th May 2011, participants			
17/05/11	Mr. Fikre Markos	Deputy Director	APHRD
17/05/11	Dr. Teshome Bekele	Acting Director (Animal Health Coordinator)	APHRD
17/05/11	Dr. Amsalu Demissie	Senior TADs expert	APHRD
17/05/11	Dr. Darsema Gulima	Senior epidemiologist	APHRD
17/05/11	Dr. Samuel Mulat	Senior quarantine expert	APHRD
17/05/11	Dr. Melresse Balcha	Senior laboratory expert	NAHDIC
17/05/11	Dr. Mesfin Sahle	Director	NAHDIC
17/05/11	Dr. Edmealem Shitaye	Deputy director	Extension Directorate
17/05/11	Dr. Wondwosen Asfaw	Senior epidemiologist	SPS-LMM
17/05/11	Dr. Nega Tewolde	Senior epidemiologist	SPS-LMM
17/05/11	Dr. William Amanfu	PVS Team leader	OIE Consultant
17/05/11	Dr. Junaidu A. Maina	PVS Technical Expert	OIE Consultant
17/05/11	Dr. John Stratton	PVS Technical Expert	OIE Consultant

Appendix 4: Timetable for PVS mission visit to Ethiopia (03-17 May/2011) including details on group visits by all team members in Addis Ababa and Debre Zeit (NOTE - field visits undertaken separately by team members are detailed in following tables.)

Date	Activity	Time
May 2/2011	Arrival	Evening
May 3/2011	Courtesy call with HE State Minister Wondirad Mandefro	09:00-09:30 AM
	Presentation and discussion at Animal and Plant Health regulatory Directorate (APHRD) office	10:00 -12:00 AM
	Travel to National Animal Health Diagnostic and Investigation Center (NAHDIC), Sebeta	12:00-12:30 PM
	Lunch break	12:30-2:00 PM
	Visit to NAHDIC	2:00 – 5:00 PM
	Dinner at Ethiopian cultural restaurant	7:00 -9:00 PM
	May 4/2011	Visit to Ethiopian Meat and Dairy Technology Institute (EMDTI)
Visit to National Veterinary Institute (NVI)		10: 5:00- 11:30 AM
Visit to PANVAC		11:30-12:00 AM
Lunch break		12:00-1:30 PM
Visit to School of Veterinary Medicine		1:30-2:15 PM
Travel to Addis		2:15- 4:00 PM
May 5/2011	Visit to Sanitary and Phytosanitary Standards and Livestock and Meat Marketing program (SPS-LMM) office	09:30 – 11:00 AM
	Visit to meat and live animals exporters association office	11:00 – 12:00 AM
	Lunch break	12:00-1:30 PM
	Visit to Bole Air Port cold storage facility	1:30 -3:00 PM
	Visit to private drug importers	3:00-4:00 PM
May 6/2011	Travel to Debre Zeit	7:30-9:00 AM
	Visit to Abattoirs (Hashim and Modjo)	09:00 – 12:00 AM
	Lunch break	12:00-1:30 PM
	Visit to feedlots (Bezabh and Teddy)	1:30 -2:30 PM
	Visit to Adama livestock quarantine	2:30 – 4:30 PM
	Travel to Addis	4:30- PM
May 7-8/2011	Saturday and Sunday	Rest
May 9/2011	Visit to Ethiopia Wild Life Conservation Authority	09:00-10:00 AM
	Visit to Ethiopian Health and Nutrition Research Institute (ENHNRI)	10:00 – 12:00 AM
	Lunch break	12:00-1:30 PM
	Visit to Ethiopian Veterinary Association (EVA) offices	1:30 – 2:30 PM
	Visit to Ethiopian Society of Animal Production (ESAP) office	2:30 -3:00 AM
	Visit to Brook Ethiopia office	3:00-3:20 PM
	Visit to FAO office	3:20 – 5:00 PM
May 10-14/2011	Visit to	
	• Amhara region (William)	From Bahir Dar all the way through Debre Birhan)
	• South and part of Oromia (John)	Livestock health agency
		Oromia Pastoral commission
		Tsetse fly breeding and multiplication laboratory
Visit health facilities on the way to Awassa		
	Hawasa, and other areas	

	<ul style="list-style-type: none"> Addis Ababa and Eastern Ethiopia (Junaidu) 	along the route to Yabello and back through Arbaminch Livestock health agency Oromia Pastoral commission Tsetse fly breeding and multiplication laboratory Visit health facilities on the way to Jijiga Dire Dawa vet service and Haromaya University Jijiga and other parts of the region Dire Dawa quarantine
May 15/2011	Travel to back to Addis Ababa	
May 16/2011	PVS team working together in Addis Ababa	
May 17/2011	Debriefing	2:00-3:00 PM:
	Dinner at Ethiopian cultural restaurant	7:00-9:00 PM
May 18/2011	Departure	

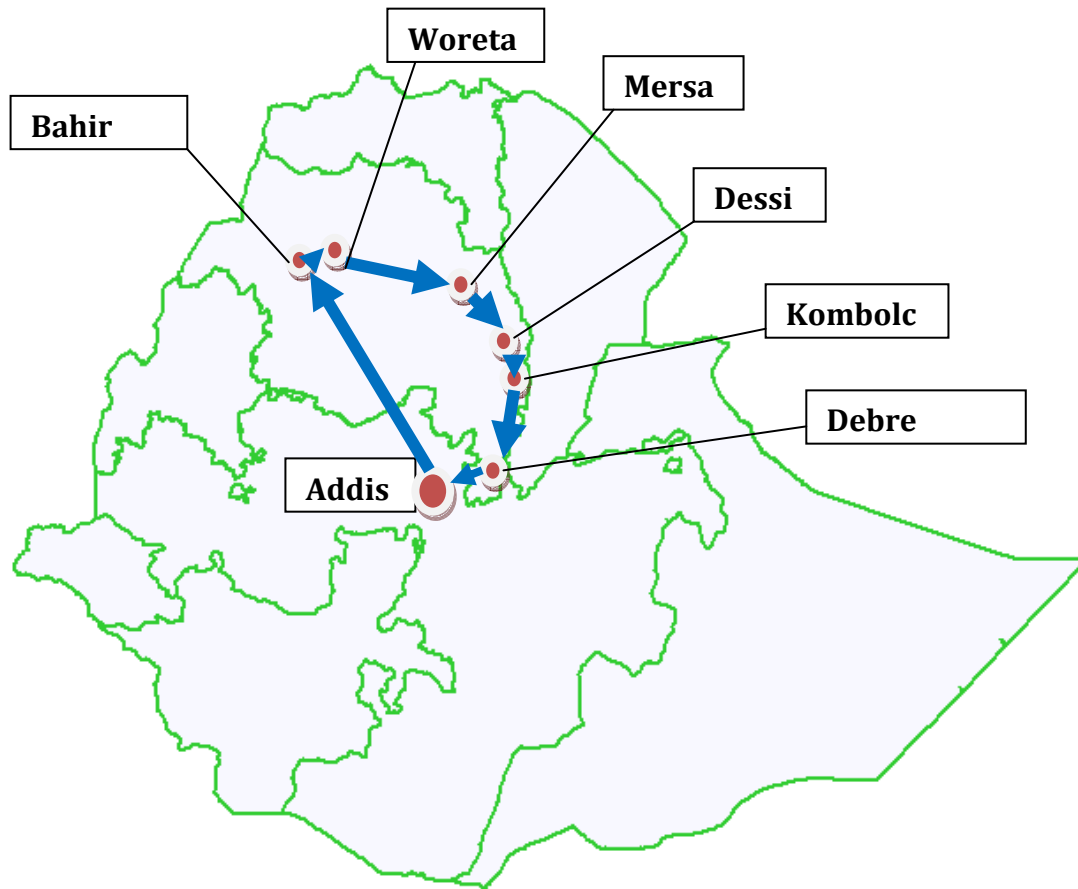
Fig1. Ethiopian map showing routes followed by the OIE/PVS evaluation team during field visits – 10-15th May 2011



Appendix 4a; Timetable for PVS mission visit to the Amhara Region of Northern Ethiopia (10-15 May/2011) -William Amanfu

Date	Activity	Time	Facilitator
May 10/2011	Travel to Bahir Dar	7:00AM	
May 11/2011	Amahara Bureau of Agriculture Visit to Regional Vet Laboratory Visit to AI Center Lunch break Visit to ASHRAF Exp Abattoir Visit to Private Drug shops	9:00-10:30 AM 10:40-11:40 AM 11:45-12:30 12:30-2:00PM 2:00-3:30PM 3:30-4:30PM	Dr Darsema
May 12/2011	Travel to Woreta Visit to private Vet Clinic Visit to Fattening farm Travel to Debre Tabour Visit to Vet Clinic Lunch break Travel to Woldiya	7:30-8:30 AM 8:30-9:00AM 9:00-10:00AM 10:00-10:45AM 10:45-11:15AM 11:15-12:00AM 12:05PM	Dr Darsema
May 13/2011	Travel to Mersa Visit to Vet Clinic Visit to Private Vet Clinic Visit to Tannery Travel to Desie Lunch break Visit to Desie University Travel to Kombolcha	8:00-9:00AM 9:00-9:30AM 9:30-10:00AM 10:00-10:30AM 10:30-12:30AM 12:30-2:00PM 2:00-3:30PM 3:30 PM	Dr Darsema
May 14/2011	Visit to Regional Vet Laboratory Visit to Abattoir (ELFORA) Visit to Tannery Lunch break Visit to Poultry production Center	8:30-10:30AM 10:30-11:30AM 11:30-12:30AM 12:30-2:00PM 2:00-3:30PM	Dr Darsema
May 15/2011	Travel to Debre Berhan Visit to Sheep ranch Lunch break Visit to Research Center Travel to Addis	7:30-11:00AM 11:00-12:30AM 12:30-1:30PM 1:30-2:30PM 2:30PM	Dr Darsema

Map of Ethiopia showing the route mission in the Amhara Region



Appendix 4b; Timetable for PVS mission visit to Eastern Ethiopia (10-15May/2011) - Junaidu Maina

Date	Activity	Time	Facilitator
May 10/2011	Oromia Pastoral Area Development Commission	8:30-10:00AM	Dr Samuel
	Oromia Livestock Production, Health and Agency		
	Visit to Insect replication center(SIT center)	10:00-11:30AM	
	Travel to Debrezeit		
	Lunch break	11:30-1:00PM	
	Visit to Debrezeit Clinic (Bisheftu)	1:00-2:30PM	
	Travel to Adama	2:00-3:00PM	
Visit to Adama Vet Clinic	3:00-4:00PM		
Visit to a private Drug shop			
May 11/2011	Travel to chirro	7:30-12:00AM	Dr Samuel
	Visit to chirro Vet Clinic	12:00-1:30PM	
	Lunch break	1:30-3:00PM	
	Travel to Hirna	3:00PM	
	Visit to Hirna Regional Vet Laboratory		
Travel to Dire Dawa			
May 12/2011	Dire Dawa Bureau of Agriculture	8:30-10:00AM	Dr Samuel
	Visit to Regional Vet Laboratory	10:00-11:00AM	
	Visit to Abattoir (Supra)	11:00-12:00AM	
	Lunch break	12:00-2:30PM	
	Visit to Dire Dawa municipality abattoir	2:30-4:00PM	
	Visit to Dire Dawa Quarantine	4:00-5:30PM	
May 13/2011	Travel to Haromaya University	8:00-9:00AM	Dr Samuel
	Visit to Haromaya University	9:00-10:30AM	
	Travel to Harar	10:30-12:00AM	
	Hara Bureau of Agriculture	12:00-1:00PM	
	Visit to Vet Clinic	1:00 PM	
	Lunch break		
	Travel to Jijiga		
May 14/2011	Somali Region Bureau of Livestock, Crop and Natural Resources	8:30-10:00AM	Dr Samuel
	Visit to Regional Veterinary Laboratory	10:00-11:30AM	
	Visit to Jijiga University	11:30-12:30PM	
	Lunch break	12:30-2:00PM	
	Visit to Animal Health post(type D clinic)	2:00-4:00PM	
	Travel to Dire Dawa		
May 15/2011	Travel to Addis	7:00AM	Dr Samuel

Appendix 4c; Timetable for PVS mission Field visit to Southern Ethiopia (10-15May/2011) including Oromia and SNNP Regions - John Stratton

Date	Activity	Time	Facilitator
May 10/2011	Oromia Pastoral Area Development Commission	8:30-10:00AM	Dr Melesse
	Oromia Livestock Production, Health and Agency	10:00-11:30AM	
	Visit to TseTse Fly Rearing and Irradiation Centre (STEP center)	11:30-1:00PM	
	Travel to Debrezeit	1:00-2:30PM	
	Lunch break	2:00-3:00PM	
	Travel to Ada	3:00-4:00PM	
May 11/2011	Visit to Ethio Dairy and Goat Farm	8:30-10:00AM	Dr Melesse
	Meet with disease outbreak investigation team	10.30-11.00AM	
	Travel to Awassa	11:00-12:00	
	Lunch break	12:00-1:30PM	
	Visit to Alage TVET (veterinary para-professional training centre)	2:00-3.30PM	
	Visit to Arsi Negelle woreda vet clinic	4:00-5:00PM	
May 12/2011	SNNP Bureau of Agriculture visit	8:30-10:00AM	Dr Melesse
	Visit to Awassa Poultry Multiplication Centre	10:30-12:00AM	
	Lunch break	12:00-1:30PM	
	Visit to Awassa University Vet Faculty	1:30-3:00PM	
	Travel to Yabello (visit empty Harobake Livestock market en route)	3:00-6:30PM	
May 13/2011	Visit Yabello Regional Vet Lab	9:00-10:30AM	Dr Melesse
	Interview with CAHW and visit CAHW training session	10:30-12:00AM	
	Lunch break	12:00-1:30AM	
	Interview owner of Utuba Gumi international livestock trading company	1.30-2:30PM	
	Visit to Borena Zone Animal Health Office	2:30-4:00 PM	
May 14/2011	Visit tourist sites near Konso, but including a traditional livestock market in operation	8:30-1:00PM	Dr Melesse
	Lunch break	1:00-2:00PM	
	Travel to Sodo	2:00-6:00PM	
May 15/2011	Visit Sodo Regional Vet Lab	7:00-9:00AM	Dr Melesse
	Visit Kassahan rural veterinary drug store	9:00-10:00AM	
	Visit Hassana animal health post	10:30-12:00	
	Lunch break	12:00-1:30PM	
	Visit Butajira slaughter slab	1:30-3:00PM	
	Visit Butajira vet clinic and revolving fund scheme	3:00-4:00PM	
	Return to Addis Ababa	4:00-7:30PM	

Appendix 5: Air travel itinerary

ASSESSOR	DATE	From	To	Flight No.	Departure	Arrival
William Amanfu	01/05/11	Accra-Ghana	Nairobi-Kenya	KQ 511	20h50	05h30 02/05/11
	02/05/11	Nairobi-Kenya	Addis Ababa-Ethiopia	KQ 402	07H25	09H20
	18/05/11	Addis Ababa-Ethiopia	Nairobi-Kenya	KQ 403	14H35	16H40
	19/05/11	Nairobi-Kenya	Accra-Ghana	KQ 514	09H30	12H10
Junaidu A. Maina	02/05/11	Abuja-Nigeria	Addis Ababa-Ethiopia	ET 910	13H35	20H20
	18/05/11	Addis Ababa-Ethiopia	Abuja-Nigeria	ET 911	09H45	12H45
John Stratton	01/05/11	Sydney-Australia	Johannesburg-South Africa	SA 7701	10H00	16H15 02/05/11
	02/05/11	Johannesburg-South Africa	Addis Ababa-Ethiopia	SA 7200	14H05	20H45
	18/05/11	Addis Ababa-Ethiopia	Johannesburg-South Africa	SA7201	08H50	13H15
	18/05/11	Johannesburg-South Africa	Sydney-Australia	SA 7700	18H15	14H05 19/05/11

Appendix 6: List of documents used in the PVS evaluation

HJS1 to HJS38 are hardcopy documents collected and held by John Stratton (and OIE HQ) during visits in both Addis Ababa and in the field:

Hardcopies – John (Addis)	MISSION DOCUMENTS	Source	Related critical competencies
HJS1	<i>Federal Negarit Gazette of Ethiopia – summary of animal health legislation and regulations</i>	Opening mtg	Preparation of Legislation and Regulations
HJS2	<i>Memoranda of Understanding between MoARD Animal and Plant Health Regulatory Directorate and Regional Bureaus</i>	Opening mtg	Internal Coordination, Early Detection
HJS3	<i>Memoranda of Understanding between NAHDIC and regional laboratories</i>	End of mission	Internal Coordination, Lab Diagnosis, Early Detection
HJS4	<i>APHRD budget</i>	End of mission	Operational Funding, Capital Investment
HJS5	<i>List of APHRD training programmes delivered to regional staff and lists of trainees, 2009-10</i>	End of mission	Continuing Education
HJS6	<i>MoARD APHRD report on training on animal disease surveillance and reporting systems, June 1-4 2010, Adama</i>	End of mission	Continuing Education, Early Reporting, Surveillance
HJS7	<i>APHRD 5 year training plan for veterinary personnel</i>	End of mission	Continuing Education
HJS8	<i>By Law of the Ethiopian Veterinary Association</i>	EVA mtg	Preparation of Legislation, Implementation of legislation
HJS9	<i>Code of Veterinary Ethics for Veterinarians Practicing in Ethiopia</i>	EVA mtg	Preparation of Legislation, VSB
HJS10	<i>EVA Conference Proceedings (2009) on Public-Private Partnerships in Veterinary Services</i>	EVA mtg	Joint Programmes, Stakeholder Consultation
HJS11	<i>Themes of EVA Annual Conferences 1975-2011</i>	EVA mtg	Emerging Issues, Stakeholder Consultation, Implementation of legislation, Joint Programmes
HJS12	<i>Planned and Executed Activities of the EVA Public Relations Department</i>	EVA mtg	Communications, Stakeholder Consultation
HJS13	<i>MOARD National Minimum Standards and Guidelines for Design and Establishment of a Sustainable Community Animal Health Service in Ethiopia</i>	EVA mtg	Professional Competencies (veterinary paraprofessionals), Continuing Education
HJS14	<i>MOARD CAHW training Facilitators Guide</i>	EVA mtg	Professional Competencies (veterinary paraprofessionals), Continuing Education
HJS15	<i>MOARD Training of Trainers Manual for Community Animal Health Workers</i>	EVA mtg	Professional Competencies (veterinary paraprofessionals), Continuing Education
HJS16	<i>Brochure – Organisational Structure and Function of EVA</i>	EVA mtg	Communications, Stakeholder Consultation
HJS17	<i>Ethiopian Veterinary Bulletin July2010</i>	EVA mtg	Communications
HJS18	<i>EVA News Review July 2009</i>	EVA mtg	Communications
HJS19	<i>CAHNET News – July to Sept2010</i>	EVA mtg	Communications
HJS20	<i>Powerpoint – Progress of CAHNET</i>	EVA mtg	Communications, Stakeholder

	<i>Ethiopia</i>		Consultation
HJS21	<i>Bole International Airport Animal Products Exported (kg) from 2007-2010 to different countries</i>	Airport visit	International Certification
HJS22	<i>Bole International Airport Skins and Hides Exported (kg) from 2007-10</i>	Airport visit	International Certification
HJS23	<i>MOARD Bole International Airport Import Veterinary Inspection form (quoting Proclamation no. 267/2002)</i>	Airport visit	Quarantine and Border Security, Implementation of Legislation
HJS24	<i>NVI Product Catalogue</i>	NVI visit	Veterinary Medicines and Biologicals
HJS25	<i>NVI Brochure on Veterinary Vaccine Production and Diagnosis</i>	NVI visit	Veterinary Medicines and Biologicals, Lab Diagnosis
HJS26	<i>Ethiopian Society of Animal Production brochure</i>	ESAP lunch	Stakeholder Consultation, Communications
HJS27	<i>Ethiopian Livestock Traders Professional Association brochure</i>	Traders mtg	Stakeholder Consultation, Communications
HJS28	<i>Modjo Modern Export Abattoir brochure</i>	Modjo visit	Food Safety
HJS29	<i>Paper from Rabies Laboratory – the Status of rabies in Ethiopia</i>	Rabies Lab visit	External Coordination, Emerging issues, Active Surveillance
HJS30	<i>Budget Allocation for the fiscal year 2011 (Amarhic)</i>	End of mission follow up	Operational Funding, Capital Investment
HJS31	<i>Budget Allocation for the fiscal year 2010 (Amarhic)</i>	End of mission follow up	Operational Funding, Capital Investment
HJS32	<i>APHRD case teams – main duties and responsibilities</i>	End of mission follow up	Internal Coordination
HJS33	<i>Veterinary Health Certificate for Export of Live Cattle from Ethiopia to Jordan</i>	End of mission follow up	International Certification
HJS34-35	<i>Agreed Minutes of 25th (2008) and 26th (2010) Ethiopia-Kenya Joint Border Commissioners/Administrators Committee Meeting, including discussion on Moyale checkpoint/quarantine station, the issue of branding of cattle near the border</i>	End of mission follow up	Quarantine and Border Control, livestock identification, Sanitary agreements
HJS36	<i>Monthly TAD and Vaccination Reporting Template</i>	Opening mtg	Passive Surveillance, Early Detection and Response, Disease Control
HJS37	<i>Yabelo Zone office Animal health service delivery handout</i>	Yabello zone visit	Passive Surveillance, Early Detection and Response, Disease Control
HJS38	<i>Awassa Poultry Multiplication Centre Handout</i>	Awassa poultry visit	Passive Surveillance, Early Detection and Response, Disease Control

SJS1 to SJS4 are softcopy documents collected and held by John Stratton (and OIE HQ) during his field visits to the Southern Oromia and SNNP regions during the second week (Southern field trip):

Soft copies – John (field trip)	MISSION DOCUMENTS	Source	Related critical competencies
SJS1	<i>Oromia Regional Livestock Agency VS powerpoint</i>	Oromia mtg	Internal Coordination, Passive Surveillance, Early Detection and Response, Disease Control, Professional Staffing
SJS2	<i>Oromia Pastoral Commission VS powerpoint</i>	Oromia mtg	Internal Coordination, Passive Surveillance, Early Detection and Response, Disease Control
SJS3	<i>Alage ATVET (vet paraprofessional) training powerpoint</i>	Alage mtg	Professional Competency (vet paraprofessionals)
SJS4	<i>Alage list of meat inspection trainees</i>	Alage mtg	Food Safety, Continuing Education, Professional Staffing
SJS5	<i>Awassa University Veterinary Curriculum</i>	Awassa Uni mtg	Professional Competency (Veterinarians)
SJS6	<i>SNNP Regional Bureau VS powerpoint</i>	SNNP mtg	Internal Coordination, Passive Surveillance, Early Detection and Response, Disease Control
SJS7	<i>EMDTI powerpoint</i>	EMDTI mtg	Stakeholder Consultation, Continuing Education
SJS8	<i>List of exporters of meat and live animals in Ethiopia</i>	EMDTI mtg	Stakeholder Consultation, Communications

P1140836 to P1160137 are photographic evidence taken by John Stratton during visits involving all team members in Addis Ababa and Debre Zeit during the first week:

Photos – John (Addis)	MISSION DOCUMENTS	Source	Related Critical Competencies
P1140836	<i>APHRD opening meeting and interviews</i>	Opening mtg	Covers most CC's
P1140837	<i>APHRD open plan offices</i>		Physical Resources
P1140839-45	<i>NAHDIC buildings and staff</i>	NAHDIC mtg	Lab Diagnosis, Physical Resources
P1140846-49	<i>NAHDIC meeting and interviews</i>	NAHDIC mtg	Lab Diagnosis
P1140850-55	<i>NAHDIC laboratory SOPs for bacteriology, parasitology, virology, public health, histopathology, serology</i>	NAHDIC mtg	Lab Diagnosis, Lab Quality Standards
P1140856	<i>NAHDIC Research Profile</i>	NAHDIC mtg	Innovation
P1140857	<i>NAHDIC Booklet/Brochure</i>	NAHDIC mtg	Communications
P1140861	<i>Trypanosomes Field Guide for training, disease control and surveillance</i>	NAHDIC mtg	Continuing Education, Disease Control, Surveillance
P1140862	<i>Training Manual for Tse-Tse control</i>	NAHDIC mtg	Continuing Education, Disease Control
P1140863	<i>FMD Disease Status and Control Strategy for Ethiopia</i>	NAHDIC mtg	Active Surveillance, Disease Control
P1140864	<i>NAHDIC Quality Manual for ISO17025:2005</i>	NAHDIC mtg	Lab Quality Standards
P1140865	<i>NAHDIC Quality Managers office door sign</i>	NAHDIC mtg	Lab Quality Standards

P1140866	<i>FMD Status 2007-10 poster</i>	NAHDIC mtg	Active Surveillance
P1140867	<i>Surveillance and Investigation of PPR in Ethiopia 2007-10 poster</i>	NAHDIC mtg	Active Surveillance
P1140868	<i>Outbreak Investigation and Sero-surveillance of CCPP poster</i>	NAHDIC mtg	Active Surveillance
P1140869	<i>Surveillance and outbreak investigation of CBPP poster</i>	NAHDIC mtg	Active Surveillance
P1140871	<i>Surveillance of HPAI and HPPD in Ethiopia since 2005 poster</i>	NAHDIC mtg	Active Surveillance
P1140872	<i>Surveillance of RVF in Ethiopia since 1999 poster</i>	NAHDIC mtg	Active Surveillance
P1140873	<i>Investigation of African Swine Fever in Ethiopia poster</i>	NAHDIC mtg	Active Surveillance
P1140874	<i>NAHDIC FMD Serotyping Investigation poster</i>	NAHDIC mtg	Active Surveillance, Lab Diagnosis
P1140875	<i>NAHDIC Vision, Mission, Values poster</i>	NAHDIC mtg	Lab Diagnosis
P1140876-78	<i>NAHDIC serology lab equipment</i>	NAHDIC mtg	Lab Diagnosis, Physical Resources
P1140879	<i>NAHDIC sample submission guidelines</i>	NAHDIC mtg	Lab Diagnosis, Lab Quality Standards
P1140880-81	<i>NAHDIC Lab Equipment</i>	NAHDIC mtg	Lab Diagnosis, Physical Resources
P1140882-P1140883	<i>NAHDIC Equipment working hour and maintenance records, and working temperature records</i>	NAHDIC mtg	Lab Quality Standards
P1140884-88	<i>NAHDIC virology lab equipment</i>	NAHDIC mtg	Lab Diagnosis, Physical Resources
P1140889-91	<i>NAHDIC haematology lab equipment</i>	NAHDIC mtg	Lab Diagnosis, Physical Resources
P1140892	<i>NAHDIC Trypanosomes poster on drug tolerance studies</i>	NAHDIC mtg	Risk Analysis, Disease Control
P1140893-95	<i>NAHDIC parasitology lab equipment and keds infected hides</i>	NAHDIC mtg	Lab Diagnosis, Physical Resources
P1140896	<i>NAHDIC sample reception area with receiving documentation</i>	NAHDIC mtg	Lab Quality Assurance
P1140897	<i>NAHDIC post mortem room</i>	NAHDIC mtg	Lab Diagnosis, Physical Resources
P1140898	<i>NAHDIC generator back up</i>	NAHDIC mtg	Lab Diagnosis, Physical Resources
P1140899	<i>NAHDIC animal experimentation station</i>	NAHDIC mtg	Risk Analysis, Physical Resources, Innovation
P1140900	<i>NAHDIC biosafety level 2+ (modified level 2) lab</i>	NAHDIC mtg	Lab Diagnosis, Physical Resources
P1140904	<i>Ethiopian Dairy and Meat Technology Institute presentation and interview</i>	EDMTI mtg	Innovation, Continuing Education
P1140906-10	<i>EDMTI demonstration farms</i>	EDMTI mtg	Physical Resources, Continuing Education, Competency
P1140913-15	<i>National Veterinary Institute (NVI) buildings and lab</i>	NVI mtg	Lab Diagnosis, Physical Resources, Veterinary Drugs and Biologicals
P1140916-19	<i>PANVAC buildings and equipment</i>	PANVAC mtg	External Coordination, Veterinary Drugs and Biologicals
P1140920	<i>University of Addis Ababa Veterinary Faculty lecture in progress</i>	UAA vet faculty	Professional Competencies (Veterinarians), Physical Resources
P1140921-25	<i>Interview with Faculty Dean</i>	UAA vet faculty	Professional Competencies (Veterinarians)
P1140926-	<i>PhD curricula</i>	UAA vet	Professional Competencies

27		faculty	(Veterinarians)
P1140929	<i>Veterinary Faculty Dean's report (achievements, constraints and future directions)</i>	UAA vet faculty	Professional Competencies (Veterinarians)
P1140930	<i>University lab with post grad student working</i>	UAA vet faculty	Professional Competencies (Veterinarians)
P1140931-33	<i>USAID SPS LMM interview and SOP manuals (feeding, feedlot design and management, dairy beef production)</i>	SPS LMM mtg	Continuing Education, International Certification
P1140934	<i>Ethiopian Meat Exporters Association interview</i>	Meat Exporters mtg	Stakeholder Consultation
P1140935	<i>Ethiopian Live Traders Association interview, including Ethiopian live transport animal welfare poster</i>	Live Traders mtg	Stakeholder Consultation, Communications, Animal Welfare
P1140936-41	<i>Bole International Airport export meat/cold storage facilities (note - airport receival areas did not permit photography)</i>	Bole airport mtg	Inspection of Collection, Processing and Distribution of Products of Animal Origin
P1140942,44	<i>Signed certificate of vet medicine registration from Food, Medicines and Health Care Administration and Control Authority (YZ Diminazem powder for injection)</i>	Damtit drug importers mtg	Veterinary Medicines and Biologicals
P1140945	<i>Signed purchase order and import permit for vet drugs imported from China</i>	Damtit drug mtg	Veterinary Medicines and Biologicals
P1140946	<i>Terms and conditions relating to drug import permit</i>	Damtit drug mtg	Veterinary Medicines and Biologicals
P1140947-48	<i>Business licence and certification for DAMTIT vet pharma trading permitting importation of veterinary drugs signed by FMHCACA (note DVM requirement)</i>	Damtit drug mtg	Veterinary Medicines and Biologicals
P1140950	<i>Standard Treatment Guidelines for Veterinary Practice in Ethiopia</i>	Damtit drug mtg	Veterinary Medicines and Biologicals
P1140951	<i>Veterinary Formulary of Ethiopia</i>	Damtit drug mtg	Veterinary Medicines and Biologicals
P1140952	<i>HELMEX Halal Slaughterhouse buildings and vehicle dip</i>	HELMEX mtg	Food Safety
P1140953	<i>Poster of slaughterhouse production flow diagram</i>	HELMEX mtg	Food Safety
P1140957-59	<i>HELMEX Posters with export slaughterhouse production data</i>	HELMEX mtg	Food Safety
P1140960	<i>HELMEX Ante mortem (AM) and Post mortem (PM) summary results including condemnations of whole carcasses and organs</i>	HELMEX mtg	Food Safety
P1140961	<i>HELMEX MOARD signed export certificate for the export of goat meat to Dubai</i>	HELMEX mtg	International Certification, Food Safety
P1140962	<i>HELMEX Meat export certification declaration and conditions</i>	HELMEX mtg	International Certification, Food Safety, Sanitary Agreements
P1140963-966	<i>HELMEX Health certificates accompanying export certification for goat meat to Dubai and Saudi Arabia</i>	HELMEX mtg	International Certification, Food Safety, Sanitary Agreements
P1140967	<i>HELMEX Post graduate research papers using slaughterhouse surveillance on cysticercosis and coenurus cerebralis</i>	HELMEX mtg	Risk Analysis, Professional Competencies (Veterinary), Food Safety, Innovation
P1140968			
P1140969	<i>HELMEX Halal slaughterhouse PM daily inspection forms, including condemnations</i>	HELMEX mtg	Food Safety

P1140973-75	HELMEX slaughterhouse AM daily inspections forms (note-lacking any evidence of rejections/reasons etc)	HELMEX mtg	Food Safety, Passive Surveillance
P1140976	HELMEX Slaughterhouse footbath	HELMEX mtg	Food Safety
P1140977-990	HELMEX Slaughterhouse operations and inspection, rudimentary inspection.	HELMEX mtg	Food Safety
P1140991	Modjo Modern export slaughterhouse buildings	Modjo mtg	Food Safety
P1140993-994	Modjo Slaughterhouse small laboratory	Modjo mtg	Food Safety, Laboratory Diagnosis
P1140995-996	Modjo Food Laboratory microbiological results (water testing)	Modjo mtg	Food Safety, Laboratory Diagnosis
P1140997	Modjo Workers health certificates	Modjo mtg	Food Safety
P1140998	Modjo pest control records	Modjo mtg	Food Safety
P1140999-P1160004-05	Modjo production records	Modjo mtg	Food Safety
P1160002	Modjo PM inspections sheet including number and types of condemnations (with reasons)	Modjo mtg	Food Safety
P1160003	Modjo AM inspections record sheet including rejects and isolations with reasons	Modjo mtg	Food Safety
P1160006-10	Modjo worker pre-entry hygiene facilities including compulsory showers and insect traps	Modjo mtg	Food Safety
P1160011-20	Modjo slaughterhouse operations, including hygiene and inspection activity (separation of dirty and clean areas, thorough carcass and organ inspection, good knowledge from operators, condemnation areas)	Modjo mtg	Food Safety
P1160021	Modjo isolation pens for AM rejects	Modjo mtg	Food Safety, Passive Surveillance
P1160022	Lairage undergoing disinfection	Modjo mtg	Food Safety
P1160030-31	Adama quarantine office (APHRD) and interviews	Adama Q office mtg	Implementation of Legislation, International Certification, Sanitary agreements
P1160032-35	Production records for the private feedlots and quarantine facilities under the jurisdiction of Adama quarantine office	Adama Q office mtg	Implementation of Legislation, International Certification, Sanitary agreements
P1160036,43	FMD serology results (345 samples) from NVI for the export of live bovines to Egypt	Adama Q office mtg	International Certification, Sanitary Agreements
P1160037	Vaccination records for feedlot cattle destined for live export (vaccinations cover 6 diseases, with two vaccinations given 3 times, for each of Blackleg, FMD, CBPP, LSD and anthrax)	Adama Q office mtg	Disease Control, International Certification
P1160038	Livestock ID (eartag) records for all feedlot cattle destined for export	Adama Q office mtg	Traceability, International Certification
P1160039-40	Livestock movement permits (in Amharic language) relating to origin (do not contain any sanitary component)	Adama Q office mtg	Traceability, Disease Control
P1160041	Signed MOARD APHRD veterinary certificate for international trade of live animals, incl health requirements (1200 head of live cattle for Jordan) note- does	Adama Q office mtg	International Certification

	<i>not contain vaccination record</i>		
P1160042	<i>Adama Q office separate vaccination certificate accompanying health certificate</i>	Adama Q office mtg	Disease Control
P1160044-47	<i>Private Quarantine station facilities including feeding and livestock ID tagging</i>	Adama Q station visit	International Certification, Sanitary Agreements
P1160055-57	<i>Private feedlot facilities with tagged animals</i>	Adama Feedlot visit	International Certification, Sanitary Agreements
P1160114-115	<i>Meeting with Ethiopian Wildlife Conservation Authority</i>	EWCA visit	Surveillance, Disease Control, Emerging Issues, External Coordination
P1160116-118	<i>Visit to Ethiopian Rabies Diagnosis Lab (under MoH)</i>	Rabies lab visit	Lab Diagnosis, External Coordination
P1160122	<i>Ethiopian Veterinary Association 25th Annual Conference Poster (“Enhancing Veterinary Education and Intersectoral Partnerships Towards One Health”)</i>	EVA visit	Communications, Emerging Issues
P1160123-126	<i>EVA interviews</i>	EVA visit	Stakeholder Consultation, Communications, VSB
P1160127-137	<i>Community Animal Health Worker Network documentation including evidence of training delivered through EVA</i>	EVA visit	Continuing Education, Communications, Stakeholder Consultation
P1170019-20	<i>Oromia Regional Specification for Construction and Equipment of Type D Clinics (Animal Health Posts)</i>	Closing meeting	Physical Resources, Capital Investment
P1170021-22	<i>Brooke Animal Welfare Report for Ethiopia including reference to government capacity building, the policy gap analysis report and Working Group formation and meetings.</i>	Brooke mtg	Animal Welfare, External Coordination
P1170023-24	<i>PANVAC conference report and 6th Pan-African meeting report</i>	PANVAC mtg	Veterinary Drug and Biologicals, External Coordination
P1170025	<i>FAO Vision for Sub-Regional office for East Africa</i>	FAO mtg	External Coordination

P1160140 to P1161009 is photographic evidence taken and held by John Stratton during his field visits to the Southern Oromia and SNNP regions during the second week (Southern field trip)

REF	MISSION DOCUMENTS	SOURCE	Related critical competencies
P1160140-41	<i>Oromia Livestock Development and Health Agency and Oromia Pastoral Commission Animal Health buildings and offices</i>	Oromia Agency visit	Physical Resources, Internal Coordination
P1160143-44	<i>Completed monthly disease reports as received from Sodo Dachi woreda, and guidelines for filling out</i>	Oromia Agency visit	Surveillance, Management
P1160146	<i>Oromia Slaughterhouse inspection numbers report</i>	Oromia Agency visit	Food safety, Management
P1160147	<i>Oromia Slaughterhouse inspection condemnations report</i>	Oromia Agency visit	Food safety, Management
P1160148-49	<i>Assela regional lab report and field disease investigation report for suspect FMD in Bokojji woreda, some investigation/sampling, but no biosecurity activity/messages</i>	Oromia Agency visit	Disease control, Management
P1160150	<i>Assela regional lab monthly report showing good levels of activity</i>	Oromia Agency visit	Lab Diagnosis
P1160151	<i>Assela regional lab field disease</i>	Oromia	Disease Control

	<i>investigation report for suspect PPR, again no biosecurity recommendations</i>	Agency visit	
P1160154-57	<i>HPAI posters and brochures at Oromia Livestock Agency</i>	Oromia Agency visit	Communications
P1160158-71	<i>STEP Kality Tsetse fly rearing and irradiation centre buildings, equipment and operations</i>	Kality Tsetse Centre visit	Physical Resources, Disease Control, Technical Innovation, Capital Investment
P1160172-95	<i>Ada Woreda Animal Health Clinic; buildings, yards, equipment, drugs/vaccines, presentation, records, AI freezing, posters</i>	Ada Woreda clinic visit	Physical Resources, Disease control, surveillance
P1160234-50	<i>Ethio Dairy and Goat Farm – facilities (including for isolation), operations, health records. Interview with owner regarding farmer representation (govt contact), livestock product safety, regulations and traceability</i>	Ethio Farm Visit	Stakeholder Consultation, Food Safety, Product Traceability
P1160270-76	<i>Interview with disease investigation team comprising regional and central lab staff despatched to Adami Tulu district to investigate sudden deaths; suspect anthrax/anaplasmosis. Samples taken, farmers interviewed. Later discovered to be metabolic acidosis/bloat associated with recent rains.</i>	Disease investigation interview	Surveillance, disease control
P1160297-335	<i>Alage Technical and Vocational Education and Training (TVET) Centre, including buildings, equipment, labs, interviews with staff and students (Vet Paraprofessional)</i>	Alage TVET visit	Physical Resources, Professional Staffing, Professional Competencies
P1160341-381	<i>Arsi Negelle woreda clinic buildings, equipment, SOPs, presentation, meat inspector, records and reports</i>	Arsi Negelle woreda clinic visit	Physical Resources, surveillance, disease control, Food Safety
P1160383-91	<i>SNNP Regional office meetings, including with Regional Bureau of Agriculture Chief and presentation on activities</i>	SNNP regional bureau meeting	Internal Coordination, Disease Control, Surveillance
P1160392-413	<i>Awassa Poultry Multiplication Centre (govt) including footbaths, vehicle wash in action, facilities, production and health records, HPAI biosecurity protocols/plans</i>	Awassa Poultry Multiplication Centre visit	Surveillance, Disease Control, Stakeholder Consultation
P1160418-44	<i>University of Awassa Vet Faculty including buildings, classrooms, labs and equipment. Viewing final year student “viva” examinations in progress. Documents relating to curricula and teaching QA.</i>	Awassa Vet Faculty visit	Professional Competency (Veterinarians), Physical Resources,
P1160555-62	<i>Harobake Livestock Market (close to Yabello) facilities and pharmacy. No sanitary measures/inspections undertaken</i>	Harobake Market visit	Surveillance
P1160563-567, ...579-614	<i>Yabello Regional Veterinary Lab buildings, equipment, SOPs, activity records, reports, research, trainings, disease plans, OIE scientific and technical reviews, and staff interviews.</i>	Yabello Regional Vet Lab visit	Lab Diagnosis, Surveillance, Disease Control, Management, Continuing Education
P1160568-578	<i>Disease distribution and risk mapping activity for major livestock diseases as supported by USAID; including maps, study design (participatory epi with lab validation/confirmation)</i>	Yabello Regional Vet Lab visit	Risk Analysis, Active Surveillance
P1160615-620	<i>Interview with local Community Animal Health Worker who had come to pick up</i>	Yabello Regional Vet	Professional Competencies, Surveillance, Disease

	<i>vaccine supplies at the regional lab.</i>	Lab visit	Control
P1160621-623	<i>Yabello lab pharmacy manager interview and drug distribution records</i>	Yabello Regional Vet Lab visit	Vet Drugs
P1160647-653	<i>Borana Zone office meeting with Zone vet, including activity records and reports (collation activity)</i>	Borana Zone office visit	Internal Coordination
P1160641-646	<i>CAHW training session in progress including training materials used and provided</i>	CAHW training classroom visit	Professional Competenc, Continuing Education
P1160721-725	<i>Traditional village livestock market in action near Konso (no sanitary measures/inspections)</i>	Market visit	
P1160884-894	<i>Sodo Regional Laboratory – old vehicles, buildings, equipment, reports, SOPs, training plans including feedback sheets and questionnaires from woredas</i>	Sodo Lab Visit	Physical Resources, Lab Diagnosis
P1160896-898	<i>Detailed job descriptions for each Sodo Regional Lab staff member</i>	Sodo Lab visit	Professional Staffing (Veterinarians)
P1160899-900	<i>Sodo Lab Training planning – questionnaires for woredas on disease priorities, training priorities and other needs.</i>	Sodo Lab visit	Continuing Education
P1160902	<i>Five year budget breakdown for Sodo Lab showing car maintenance, fuel, per diems make up significant proportion of costs</i>	Sodo Lab visit	Operational Funding, Lab Diagnosis, Internal Coordination, Competency
P1160903-904	<i>Training materials for training of woreda veterinarians/Veterinary Para-professionals by Sodo Lab</i>	Sodo Lab visit	Continuing Education
P1160906-912	<i>Disease investigation reports from Sodo Lab including disease control recommendations e.g. trypanosomes case for treatment with right drug, right dose, right time, to avoid resistance</i>	Sodo Lab visit	Surveillance, Disease Control
P1160913-941	<i>Sodo Lab SOPs, record keeping books, results, posters for each different lab (e.g. sero, bacto, parasitology, etc)</i>	Sodo Lab visit	Lab Diagnosis, Lab QA, Management
P1160951-956	<i>Kassahan Rural Drug Store, including drug selling licence requiring veterinary involvement</i>	Kassahan Drug Store Visit	Veterinary Drugs
P1160982-990	<i>Hassana animal health post, including; interview with animal health assistant, basic record keeping of clinical work, surveillance and vaccination activity</i>	Hassana animal health post	Surveillance, Disease Control
P1160994-P1161006	<i>Butajira slaughter slab buildings, equipment, interview with local meat inspector, and basic record keeping, including organ condemnations but no ante mortem rejections</i>	Butajira slaughter slab visit	Food Safety, Product traceability
P1161007-009	<i>Butajira animal health clinic, with revolving fund for vaccines and drugs</i>	Butajira AH clinic visit	Surveillance, Disease Control, Operational Funding

SWA-1 to SWA-4 are softcopy documents collected and held by William Amanfu during his visits around Addis Ababa and to the Amhara Region (Field Trip) during the first and second week of mission:

Soft copies – William (field trip)	MISSION DOCUMENTS	Source	Related critical competencies
SWA-1	<i>Animal Welfare Action Plan 2011-2012</i>	Meeting in Addis	Animal Welfare
SWA-2	<i>Animal Welfare Gap Analysis as conducted by Brooke</i>	Meeting in Addis Ababa	Animal Welfare, External Coordination
SWA-3	<i>Animal Welfare-Terms of reference of Working Group</i>	Meeting in Addis Ababa	Animal Welfare
SWA-4	<i>Bahir Dar Regional Diagnostic Laboratory powerpoint (Amhara Region)</i>	Visit to Bahir Dar	Laboratory Diagnosis; Active and Passive Surveillance; Physical resources
SWA-5	<i>Enabling Livestock Product Exports from Ethiopia</i>	ILRI Document obtained from APHRD	Risk Analysis; International Certification, External Coordination

PWA-1 to PWA-45 are photographic evidence taken and held by William Amanfu during his field visits to the northern Amhara region (Northern field trip)

	MISSION DOCUMENTS/ACTIVITY	Source	Related critical competencies
PWA-1	<i>Amhara Bureau of Agric-Bahir Dar</i>	Meeting at Bahir Dar Dar	Internal Coordination, Stakeholder consultation
PWA-2	<i>ASHRAF Export Abattoir-Bahhir Dar</i>	Visit-Bahir Dar	Physical Resources; Food Safety, International Certification
PWA-3	<i>ASHRAF Export Abattoir-Bahhir Dar</i>	Visit-Bahir Dar	Physical Resources; Food Safety, International Certification
PWA-4	<i>ASHRAF Export Abattoir-Bahhir Dar</i>	Visit-Bahir Dar	Physical Resources; Food Safety, International Certification
PWA-5	<i>Bahir Dar Private Veterinary Drug store</i>	Visit-Bahir Dar	Veterinary Medicine and Biologicals
PWA-6	<i>Bahir Dar Private Veterinary Drug store</i>	Visit-Bahir Dar	Veterinary Medicine and Biologicals
PWA-7	<i>Bahir Dar Regional Veterinary Lab. Record books</i>	Visit-Bahir Dar	Laboratory Diagnosis; Active and Passive Surveillance;
PWA-8	<i>Bahir Dar Regional Veterinary Lab Record Books</i>	Visit-Bahir Dar	Laboratory Diagnosis; Active and Passive Surveillance; Physical Resources
PWA-9	<i>Bahir Dar Regional Veterinary Lab Record Books</i>	Visit-Bahir Dar	Laboratory Diagnosis; Active and Passive Surveillance;
PWA-10	<i>Bahir Dar Regional Veterinary Lab - Meeting</i>	Visit-Bahir Dar	Laboratory Diagnosis; Active and Passive Surveillance;
PWA-11	<i>Bahir Dar Regional Veterinary Lab Meeting</i>	Visit-Bahir Dar	Laboratory Diagnosis; Active and Passive Surveillance;
PWA-12	<i>Bahir Dar Regional Veterinary Lab Record Book</i>	Visit-Bahir Dar	Laboratory Diagnosis; Active and Passive Surveillance; Management
PWA-13	<i>Bahir Dar Regional Veterinary Lab-Lab equipment</i>	Visit-Bahir Dar	Laboratory Diagnosis; Active and Passive Surveillance; Physical Resources
PWA-14	<i>Bahir Dar Regional Veterinary Lab Record Books</i>	Visit-Bahir Dar	Laboratory Diagnosis; Active and Passive Surveillance;
PWA-15	<i>Debre Birhan Agric Research</i>	Debre	Physical resources; innovation,

	<i>Institution</i>	Birhan visit	stakeholder consultations on research findings transfer
PWA-16	<i>Debre Birhan Agric Research Institution-Record books</i>	Debre Birhan visit	Stakeholder Consultations
PWA-17	<i>Debre Birhan Agric Research Institution-Record Books</i>	Debre Birhan visit	Stakeholder Consultations
PWA-18	<i>Debre Birhan Agric Research Institution-Record Books</i>	Debre Birhan visit	Stakeholder Consultation; Innovation
PWA-19	<i>Debre Birhan Agric Research Institution-Crossbred Sheep for distribution to local sheep farmers</i>	Debre Birhan visit	Stakeholder consultation; Communications
PWA-20	<i>Private Fattening pen in Woreta (Amhara Region) at Worada Level</i>	Visit to Woreta	Physical resources
PWA-21	<i>Kobel small scale Dairy (Amhara Region) Bahir Dar</i>	Visit to Bahir Dar	Food Safety, Livestock Product
PWA-22	<i>Kombolcha (Amhara Region) Tannery</i>	Visit to Kombolcha	Physical Resources, Livestock product safety and traceability
PWA-23	<i>Kombolcha-Elfora Abattoir (Non-export) Meeting with staff</i>	Visit to Kombolcha	Physical Resources; Food Safety
PWA-24	<i>Kombolcha-Elfora Abattoir (Non-export) Preparing tins for packing ground beef</i>	Visit to Kombolcha	Food safety
PWA-25	<i>Kombolcha-Elfora Abattoir (None-export) Preparing tins for packing ground beef</i>	Visit to Kombolcha	Food Safety
PWA-26	<i>Kombolcha Poultry Multiplication Unit</i>	Visit to Kombolcha	Physical resources; Stakeholder consultations; Communications
PWA-27	<i>Kombolcha Poultry Multiplication Unit</i>	Visit to Kombolcha	
PWA-28	<i>Kombolcha Poultry Multiplication Unit – Farm Record sheets</i>	Visit to Kombolcha	Physical resources; Management
PWA-29	<i>Kombolcha Poultry Multiplication Unit-Farm Record Sheets</i>	Visit to Kombolcha	Physical resources, Management
PWA-30	<i>Kombolcha Poultry Multiplication Unit</i>	Visit to Kombolcha	Physical resources
PWA-31	<i>Kombolcha Regional Veterinary Laboratory (Amhara Region)</i>	Visit to Kombolcha	Physical Resources;
PWA-32	<i>Kombolcha Regional Veterinary Laboratory (Amhara Region) Epidemiology Unit – Disease maps</i>	Visit to Kombolcha	Physical resources; Risk analysis, active surveillance
PWA-33	<i>Kombolcha Regional Veterinary Laboratory (Amhara Region) Record Book-Microbiology Lab</i>	Visit to Kombolcha	Physical Resources, Lab Diagnosis, Surveillance
PWA-34	<i>Kombolcha Regional Veterinary Laboratory (Amhara Region) Inspection of Parasitology Lab</i>	Visit to Kombolcha	Physical Resources; Laboratory Diagnosis, Surveillance
PWA-35	<i>Kombolcha Regional Veterinary Laboratory (Amhara Region) Laboratory Library</i>	Visit to Kombolcha	Physical resources; Laboratory Diagnostics; Surveillance
PWA-36	<i>Livestock Market-Yetnora (Amhara Region)</i>	Visit to Yetnora	Physical Resources;
PWA-37	<i>Mersa Tannery (Amhara Region)</i>	Visit to Mersa	Physical resources; Livestock product safety and traceability
PWA-38	<i>Mersa Veterinary Clinic (Amhara region)-Worada</i>	Visit to Mersa	Active and Passive Surveillance; Physical Resources
PWA-39	<i>Mersa Veterinary Clinic (Amhara region)-Worada-Offices</i>	Visit to Mersa	Physical resources, Surveillance, Disease Control
PWA-40	<i>Mersa Veterinary Clinic (Amhara region)-Health post distribution map within the Worada</i>	Visit to Mersa	Professional Staffing, Physical Resources, Surveillance, Disease Control

PWA-41	<i>Modjo Abattoir (Oromia Region) HACCP Coordinating Office</i>	Visit to Modjo	Food Safety
PWA-42	<i>Private Drug Vendor-Woreta (Amhara Region)</i>	Visit to Woreta	Veterinary Medicines and Biologicals
PWA-43	<i>Private Vet Clinic—Woreta -Buildings</i>	Visit to Woreta	Physical resources
PWA-44	<i>Private Vet Clinic—Woreta -Buildings</i>	Visit to Woreta	Physical Resources
PWA-45	<i>Construction of Residue testing Laboratory at Kality-various stages</i>	Provided by APHRD	Residue testing, Capital Investment

SJM1 to SJM24 are soft copy of documents collected and held by Junaidu Maina covering both team visits during our first week in Addis Abab/Debre Zeit, and his field visits to Eastern Ethiopia (East Oromia and Somali regions) during the second week.

Soft copies - J. Maina	MISSION DOCUMENTS	SOURCE	RELATED CRITICAL COMPETENCIES
SJM1	<i>Overview of current status of Ethiopian veterinary service (PowerPoint)</i>	Opening mtg	Overview, relevant to most CCs
SJM1b	<i>Training and Workshop Profile over recent 5 years across VS</i>	Opening mtg	Continuing Education
SJM1c	<i>Export Abattoirs contact address</i>	Opening mtg	Stakeholder Consultation, Communications
SJM1d	<i>List of Animal Exporters</i>	Opening mtg	Stakeholder Consultation, Communications
SJM1e	<i>GIS in General (PowerPoint) – training provided to VS</i>	Opening mtg	Innovation, Continuing Education, Professional Competencies
SJM1f	<i>APHRD Newsletter.pdf</i>	Opening mtg	Communication
SJM1g	<i>Diagnostic SOPs and guidelines front cover. pdf</i>		Lab Diagnosis, Lab Quality Standards
SJM2	<i>EMDTI (PowerPoint)</i>	Visit to EMDTI	Innovation, Continuing Education, Physical Resources
SJM3	<i>National Veterinary Institute (NVI) presentation (PowerPoint)</i>	Visit to NVI	Lab Diagnosis, Physical Resources, Veterinary Drugs
SJM4	<i>NAHDIC Profile.</i>		Internal Coordination, Lab Diagnosis, Lab QA, Surveillance, Early Detection and Response, Disease Control
SJM5	<i>Amhara Region Animal Health Status (PowerPoint)</i>	Field Visit	Internal Coordination, Passive Surveillance, Early Detection and Response, Disease Control
SJM6	<i>SPS-LMM system USAID Project.pdf</i>		Innovation, Food safety, International Certification, Sanitary Agreements
SJM7	<i>Ethiopian Wildlife Conservation Authority (PowerPoint 1)</i>	Visit to EWCA	Emerging issues, risk analysis, External Coordination
SJM8	<i>Ethiopian Wildlife Conservation Authority (PowerPoint 2)</i>	Visit to EWCA	Emerging issues, risk analysis, External Coordination
SJM9	<i>Kombalcha Regional Laboratory (PowerPoint)</i>	Kombalcha Lab Visit	Lab Diagnosis, Surveillance

SJM10	<i>Ethiopian_Animal Health_Year_Book (2010)</i>	Opening mtg	Communication <i>*useful resource with summary information about most CCs</i>
SJM11	<i>NAHDIC Research Profile First Ed.(.pdf)</i>	Visit to NAHDIC	Lab Diagnosis, Physical Resources, Innovation
SJM12	<i>NAHDIC organ-ogram.pdf</i>	Visit to NAHDIC	Lab Diagnosis, Surveillance, Physical Resources
SJM13	<i>NAHDIC Brochure.pdf</i>	Visit to NAHDIC	Lab Diagnosis, Active and Passive Surveillance, Physical Resources
SJM14	<i>MOU -NAHDIC with Vet faculties-Ethiopia.pdf</i>	Visit to NAHDIC	Stakeholder Consultation, Innovation, Continuing Education & Professional competence
SJM15	<i>Confirmed disease map for PPR-AHS-CCPP-CBPP</i>		Active Surveillance, Risk Analysis
SJM16	<i>Dire Dawa Agriculture Development Office (PowerPoint)</i>	Field Visit to Dire Dawa Region	Internal Coordination, Passive Surveillance, Early Detection and Response, Disease Control
SJM17	<i>Dire Dawa Lab (PowerPoint)</i>	Field visit to Dire Dawa Regional Lab	Lab Diagnosis, Physical Resources
SJM18	<i>Harari regional profile (PowerPoint)</i>		Internal Coordination, Passive Surveillance, Early Detection and Response, Disease Control
SJM19	<i>Harari Vet Infrastructure</i>	Field visit to Harari Regional Bureau	Physical Resources
SJM20	<i>Harari TERMS OF REFERENCE USED FOR CAHWs</i>	Field visit to Harari Regional Bureau	Professional Competency (Paraprofessionals)
SJM21	<i>Harari Minimum standards and guidelines draft</i>	Field visit to Harari Regional Bureau	Professional Competency (Paraprofessionals)
SJM22	<i>Harari Attendance sheet for CAHWs Training</i>	Field visit to Harari Regional Bureau	Professional Competency (Paraprofessionals), Continuing Education
SJM23	<i>Harari Front page of the license for CAHW</i>	Field visit to Harari Regional Bureau	Professional Staffing, Professional Competency (Paraprofessionals)
SJM24	<i>Somali Regional Bureau (PowerPoint)</i>	Field visit to Somali Regional Bureau	Internal Coordination, Passive Surveillance, Early Detection and Response, Disease Control

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

Assessors Team:

- Team leader: William Amanfu
- Technical expert(s): John Stratton, Junaidu Maina

References and Guidelines:

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

Dates: 3rd May to 17th May 2011

Language of the audit and reports: English (translation required for some field interviews)

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

- Not Inclusive of aquatic animals
- Not inclusive of other institutions / ministries responsible for activities of VS (excluding rabies lab under Ministry of Health)

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

- Field activities:
 - Animal health (epidemiological surveillance, early detection, disease control, etc)
 - quarantine (only the major airport, no terrestrial borders were visited due to time and/or security constraints),
 - veterinary public health (food safety, veterinary medicines and biological, residues, etc)
 - control and inspection,
 - others
- Data and communication
- Diagnostic laboratories
- Research
- Initial and continuous training
- Organisation and finance
- Other to be determined...

Persons to be present: see provisional Appendix 3

Sites to be visited: see provisional Appendix 4

Procedures:

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

Provision of assistance by the evaluated country

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

Reports:

- a fact sheet or powerpoint will be presented at the closing session
- a report will be sent to the OIE for peer-review no later than one month after the mission

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- the current levels of advancement with strengths, weaknesses and references for each critical competence will be described,
 - general recommendations may be made in agreement with the VS.

Confidentiality and publishing of results

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