

**WORD ORGANIZATION FOR ANIMAL HEALTH
(OIE)**

**KENYAN NATIONAL VETERINARY SERVICES
EVALUATION REPORT**

***BASED ON PERFORMANCE VISION AND
STRATEGY (PVS) TOOL OF OIE***

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**List of acronyms stated in the report
and their meanings**

AHITI	Animal Health and Industry Training Institute
ASAL	Arid and Semi Arid Land
AU/IBAR	African Union/InterAfrica Bureau of Animal Resources
DFZ	Disease Free Zone
EU	European Union
FAO	Food and Agriculture Organization of United Nations
KARI	Kenyan Agricultural Research Institute
KLMC	Kenyan Livestock Marketing Commission
KMC	Kenya Meat Commission
KVA	Kenyan Veterinary Association
KVB	Kenyan Veterinary Board
MPTU	Mobile Pastoralist Training Unit
OIE	World Organization for Animal Health
RVF	Rift Valley Fever
VS	Veterinary Services

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Part I: Executive summary:

Introduction

Agriculture is the backbone of the economy and principal source of livelihood for Kenya's poor people. The agricultural sector is plugged into global and regional markets, and the country is a world leader in the export of tea, coffee and horticultural products. The dairy sector is among the best developed in Africa, and the Kenya Highlands comprise one of the continent's most successful agricultural production regions. For more than a decade, the horticultural sector has shown dynamic, sustained, market-driven growth.

Agriculture and agro-related activities account for more than 50 % of GDP, generating employment for about 70 % of the population, 80 % of export earnings, 70 % of materials for agro-industrial production and a major share of government revenue.

Objective, scope and content of evaluation

For a VS, the results of a PVS evaluation can help to:

- 1) indicate the overall performance of each one of the four components ;
- 2) rate the relative performance within each one of the variables;
- 3) compare the performance of the national VS with that of other VS in the region or globally, in order to explore areas for cooperation or negotiation;
- 4) identify the differences in the responses of the different users in order to arrive at common points of view;
- 5) foster common understanding in order to achieve greater levels of advancement;
- 6) determine the benefits and costs of investing in VS and obtaining assistance from financial and technical cooperation agencies;
- 7) provide a basis for establishing a routine monitoring and follow-up mechanism on the overall level of performance of the national VS over time.

Summarized results of the evaluation

I. Human and financial resources

The VS of Kenya is part of the Ministry of Livestock and Fisheries Development. It is headed by the Director of the VS (DVS) who is accountable to the Permanent Secretary of the Ministry (Appendix 14).

The DVS is chosen on the basis of merit from a list of Kenyan veterinarians who are known to have scientific competence, field experience and a recognized personality. There are specific procedures followed in the selection of the DVS. This starts with the Permanent Secretary of the Ministry who declares the vacancy of the DVS to the Kenyan Public Service Commission (KPSC). The latter is an independent body established by the Kenyan constitution to oversee the public services. The committee then advertises the post in the media. The qualification requirements of the post which are mentioned in the advertisement include, as a minimum a BVSc degree from a recognized university and professional experience of at least 10 years.

About 2000 persons within the VS (veterinarians, technicians, skilled workers and auxiliary staff) are distributed in the headquarters and field offices of the

districts and in the provinces. It is estimated that more than 22% of the veterinary staff are holding a university degree.

The VS is training its staff for PhD, MSc and BVSc (achieved locally in the University of Nairobi and internationally in recognized academic institutions). The liquidation of employment since 1989 resulted in an adverse impact in the VS delivery. Since the retirement age in the public sector is 55 years, those who retire have not been replaced by others through new recruitment. This has created vacancies at the field level in the provinces and districts. The Animal Health and Industry Training Institute (AHITI) is one of the Ministry institutes with a mandate to train animal health technicians and meat inspectors. However the VS conduct training for its staff whenever resources are available.

The claims of limited funding are raised everywhere in the sectors related to the VS despite the fact that the VS has the liberty to access to three lines of funding, namely, recurrent budget, development funds and emergency funding. The VS is developing links with all the institutions and sectors relevant to the VS. The university in collaboration with VS is actively involved in organizing joint training workshops and seminars in different subject lines.

The VS, as a public service delivery body, is not allowed to open avenues for the investment.

II. Technical capability

The veterinary laboratories in the country have the capabilities to collect samples from any place in the country and to confirm animal diseases using internationally recognized standards and protocols. As part of the VS they are mandated to confirm diagnosis of animal diseases, disease search and surveillance, as well as to monitor the effectiveness of vaccination campaigns and quality regulation of veterinary inputs and outputs, as well as certification of imports and exports.

The VS possesses the necessary legal and financial support to contain any animal disease outbreak. This has been efficiently achieved during the recent outbreak of RVF.

Regarding the emergency preparedness for avian influenza, VS didn't receive enough funds to implement the strategy which has been developed through assistance from international and regional organisation.

The department of veterinary public health in VS, leads an optimistic programme for the protection of human and animal health. The department coordinates closely with the Ministry of Health in matters associated with food inspection and hygiene. The department distributed in all districts through its

technical arms, is controlling meat inspection and hygiene in seven export abattoirs and in a considerable number of local slaughter facilities (slabs). The national VS carries out a specific programme that identifies technical innovations which can improve its operation and procedures. Despite all this the team observed that the knowledge about OIE and its standards and norms among the field staff is so limited.

The team met with the Kenya Agricultural Research Institute (KARI). This body is responsible for all the agricultural research activities including the veterinary research and vaccine production. The institute collaborates with VS in securing the vaccine needed for the control of diseases. Moreover it is working closely with VS in research activities associated with tick control and tick borne diseases, East Coast Fever, piroplasmiasis, heart water and malignant catarrhal fever.

In the meeting with the Dean Faculty of Veterinary Medicine, University of Nairobi, he explained the different patterns of collaboration with the VS. The VS is well equipped with the necessary legal and certification tools that enable it to obtain the required information from the importing countries.

III. Interaction with stakeholders

The VS maintains an official communication outlet, which users can consult regarding standards, regulations and notifications. However due to lack of appropriate transport facilities the VS is unable to cover remote areas in which their pastoralist and herders are in badly in need of communication and extension services.

The role of private veterinarians in the delivery of VS is highly appreciated. The private veterinarians continuously interact with the producers and they are considered as main VS providers in high livestock potential areas. The private veterinarian in the area is often the first to report disease incidence to the district veterinary officer. This was clearly observed in areas with high livestock production, which were visited by the team in the Rift Valley and in Coast and Eastern Provinces.

The producers are also alerted for disease reporting. They can and do report to the government or private veterinarian, provincial or district director of VS or sometimes directly to the DVS.

The Kenyan Veterinary Board (KVB) which is the only veterinary statutory body entrusted to regulate the veterinary profession through regular revision of the veterinary surgeon act. Its mandate is also to promote continuous professional development. The board is also entitled to review the quality of the veterinary education through active involvement in the evaluation of curriculum and staff and training facilities on regular basis. The board is also responsible for the registration of veterinarians and for deciding on whether veterinarians who

graduated from outside Kenya should be registered or required for a qualifying examination first.

The CEO/Managing Commissioner of the Kenya Livestock Marketing Council (KLMC) who confirmed their active interaction with the VS. He also noted the link between the three partners, VS, KLMC and International Livestock Research Institute (ILRI). Their collaboration has included the development of a marketing data-base located in ILRIland which is easily accessible to all livestock traders. He raised the challenges facing the VS and emphasized the adverse effect of the limited number of veterinarians and other technical staff. The real implication of this is that, a quite large number of private veterinarians are concentrated in the high livestock producing area where work is more feasible than the Arid and Semi-arid Land (ASAL) areas which are considered as hardship areas. Thus, in the existing situation the ASAL areas which receive, low public funding, are proportionally deprived of appropriate veterinary services.

The team was able to meet pastoralist organisation in Isiolo (Eastern Province). The members of that body expressed their deep concern for the future of the holding ground which was established in early fifties and which substantially served livestock marketing. They indicated that the utilization of that facility stopped in early nineties. They expressed a strong request for reestablishment of the project .

The team also visited a number of private veterinary practitioners, ranches, holding grounds, proposed export quarantine and dairy plants in the Eastern, Rift Valley and Coast provinces. All these stakeholders expressed their satisfaction with the level and degree of the collaboration with the VS.

IV. Access to markets

The VS is implementing some procedures which to some extent can minimize the risks and hazards associated with the importation of microorganism contaminated products. However, the VS lacks appropriate capacities to implement a compliance programme consisting of inspection and verification of the regulatory norms for selected products and processes. This was indicated in the level of staff working at the ports who are entrusted with implementing such standards. The import/export facilities are in need of rehabilitation and their mandate should be reviewed according to OIE standards.

The VS formulates and adopts regulatory norms, applying procedures that take into consideration the opinions of its users. To achieve livestock identification and traceability, the VS has started to impose some regulatory procedures requiring locations, districts and provinces in branding animals according to specific procedures. The brand comprises of three symbols e.g. KG7. The symbol K represents Kenya, G identifies the district and the number 7 indicates the location. Thus the VS has procedures in place and can track selected

animals and their related products across the portion of the agri-food chain covered under its mandate to the level of location. The VS has identified those national regulatory norms that are not in line with international norms, guidelines and recommendations.

The VS has the authority to negotiate and approve equivalency agreements with other countries. This has been only practiced to a limited degree since livestock export stopped in 1996. Only small consignments have been sent to a limited number of countries, namely, Qatar, Mauritius, Burundi and Egypt.

The VS of Kenya has a good reputation among African countries. It is one of the eldest veterinary services. Most of the regionally and internationally recognized veterinary institutions in Africa have been posted in Kenya. These are namely, Muguga reference laboratory, International Livestock Research and Development (ILRAD) and recently, African Union/Inter-African Bureau of Animal Resources (AU/IBAR) and ILRI.

V. Current level of performance:

The team after thorough investigation and assessment is able to reach the following conclusions on current level of performance. (Appendix 17)

Recommended Action plans:

The following recommendations are offered to the help in rehabilitation of the VS of Kenya:

- The VS has a critical need to strengthen its professional and technical staff. The re-establishment of employment to the public sector will definitely address this problem. As been estimated by the VS, the anticipated recruitment of almost 500 veterinarians and technical staff will help in filling the gaps which resulted from staff retirement.
- To address funding, there should be a master plan proposed by the VS in which they can include all their needs based on a technical and socio-economical study, preferably to be conducted by specialized experts. This study should cover all aspects of the VS particularly capacity building, training, communication and information technology, infrastructures and provision of means of transport. However, the most urgent need is the provision of financial support for the VS to fully address the needs of emergency preparedness. This funding is needed to monitor and prevent avian influenza and to complete the programme for elimination of RVF from the country as well as to prepare for any future emergencies. For example there is an indication that the RVF virus doesn't completely disappear from the country. The beginning of the rainy season this year indicates the possibility of

another episode of flooding which may result in reactivation of the infective agent and its vector. The VS, assisted by other international and regional organisation, has developed a strategic plan which could serve as the basis for the above mentioned purpose. The team strongly recommends that it should be considered as a major priority in future funding

- The VS is actively planning to increase the veterinary field services especially in the ASAL of the North. This could only be achieved through changing the existing conventional pattern of delivery of veterinary services to its users. An alternative approach for the delivery of veterinary services, which has proved to be feasible and successful in similar areas in other countries, is an integrated pattern of services. It mainly comprises of the introduction of a mobile unit system which accommodates, in specially designed vehicles, all VS including those responsible for prevention, treatment, epidemiological surveillance, laboratory investigation, extension and animal production improvement. This would minimize the operational cost of sending every one of the above mentioned specialities alone. The Mobile Pastoralist Training Unit (MPTU) in Isiolo could also be improved and upgraded to compliment this objective.
- National laboratories should be strengthened through increasing technical capabilities. The linkages and twinning procedures with regional and international laboratories particularly OIE reference laboratories and collaborating centres, should be encouraged. It is known that the staff in the laboratories are well trained. Thus the provincial disease investigation laboratories should be supplied with trained personnel, additional diagnostic equipment and supplies and improved facilities. Consideration should be given to a level 3 facilities which could have shared access by multiple users and which could serve the entire East Africa region. These establishments would increase the capabilities of the VS at the provincial and district levels.
- Due to the limited knowledge about the OIE and other international standards at the field level, the VS should approach OIE to second experts to participate in locally organized training workshops and seminars for senior technical staff at district, provincial and central levels.
- As a priority to increase the capacities of VS staff, training in risk analysis should be urgently and strongly emphasized. It is impossible to run effective import/export activities without

implementing risk analysis procedures. Thus the import/export is a unique and specialized activity of paramount importance. It is recommended that the department of quarantine should be upgraded and considered as one of the main activities for disease control. Senior and advanced trained officers should be located at the ports and other main livestock points of entry.

- Since Kenya is a member of the WTO, application to the WTO should be forwarded in order to provide training opportunities in SPS and this is of paramount importance. This must include risk analysis and management.
- All parties concerned including VS, KVB and KVA should work together to strengthen the role of private veterinarians in delivering proper veterinary services through the accreditation and training of the veterinarians and securing of funding for them.
- It is recommended that the holding areas in the ASAL should be reestablished with the construction of slaughter facilities and appropriate staff to assure the delivery of veterinary services in these areas.
- The VS could not achieve the objective of access to market without being able to implement the appropriate sanitary measures which are in compliance with the international standards. The main tool for implementation of such standards are import/export infrastructures. The VS should review the status of the quarantine stations and a clear distinction between the quarantine stations and holding grounds should be drawn up. This distinction should be based on the OIE standards.
- A master plan should be prepared with the objective to rehabilitate the import/export infrastructures including quarantine stations, holding grounds and slaughterhouses. The VS should enhance the linkages developed by KLMC for the promotion of Kenyan livestock products in the external markets.
- One of the most crucial issues which should be considered by the VS is the effectiveness of border livestock movement control points. Kenya is strongly encouraged to sign bilateral agreements with neighboring countries to harmonize their activities in control of livestock movement and carrying out epidemio-surveillance.
- For the purpose of disease control and promotion of export, the VS should identify areas to establish disease free zones and compartmentalization according to OIE standards.

For appropriate action plans to be implemented in order to review the Kenyan VS, the following should be considered:

The recommendations should be categorized into immediate, medium and long term plans:

Immediate term plans include (to be implemented within coming fiscal year, 2007/2008):

- Actions to address human resources development.
- Training in import/export sanitary procedures and in the importance of compliance with international standards in particular OIE standards and norms especially including risk assessment.
- Securing funds for emergency preparedness for monitoring of avian influenza and elimination of RVF as well as for other diseases expected in near future. This also includes strengthening the laboratory capabilities.
- Employment of 500 veterinarians and technical staff.

Medium term plans include (to be implemented within 2 years starting from the coming fiscal year):

- Establishment of animal quarantine at the ports according to international specifications and under the direct supervision of the VS.
- Upgrading of the quarantine department and assigning a fairly senior officer with trained veterinarians and other technical staff to be located in Mombassa. A consultant could be hired to prepare a master plan to establish this department or unit and fix the total cost of rehabilitation of infrastructures with immediate implementation.
- Introduction of mobile units in the ASAL in North to supplement the existing MPTU.
- Prepare a master plan for the complete rehabilitation and revival of VS in Kenya taking in consideration the proposed strategic plan.

Long term plans starting from year 2008/2009 and continue onwards:

- Implementation of the VS rehabilitation programme.
- Employment of veterinarians and technical staff every 2 years as required.
- Harmonization of activities with neighboring countries to control livestock movements and signing of bilateral agreements in which the two countries agree on border points for monitoring of livestock movements across the borders.
- Support provinces, districts and divisions (field services) with senior, trained and technically competent staff

Part II: Conduct of the Evaluation

I. Introduction on the use of the PVS tool

Kenya lies astride the equator on the eastern coast of Africa. Kenya is bordered in the north by Sudan and Ethiopia, in the east by Somalia, on the southeast by the Indian Ocean, on the southwest by Tanzania and to the west by the Lake Victoria and Uganda. (Annex 3).

Geographic coordinates 00 N, 38 00 E. Area total: 582,650 sq km (land: 569.250 sq km, water: 13.400 sq km). Area - comparative slightly more than twice the size of Nevada. Land boundaries total: 3.446 km; border countries: Ethiopia 830 km, Somalia 682 km, Sudan 232 km, Tanzania 769 km, Uganda 933 km, Coastline 536 km. Maritime claims: continental shelf: 200m depth or to the depth of exploitation exclusive economic zone: 200 nm territorial sea: 12 nm (Appendix 2).

Kenya is notable for its geographical variety. The low-lying, fertile coastal region, fringed with coral reefs and islands, is backed by a gradually rising coastal plain, a dry region covered with savannah and thorn bush. At an altitude of about 1.524 m and 300 miles inland, the plain gives way in the southwest to a high plateau, rising in parts to 3.048 m, in which about 85% of the population and the majority of economic enterprise are concentrated.

The northern section of Kenya, forming three-fifths of the whole territory, is arid and of semi desert character, as is the bulk of the south-eastern quarter. In the high plateau area, known as the Kenya Highlands, lie Mt. Kenya (5.200 m), Mt Elgon (4.322 m) and the Aberdare Ranger (rising to over 3.963 m). The plateau is bisected from north to south by the Rift Valley, part of the great geological fracture that can be traced from Syria through the Red Sea and East Africa to Mozambique. In the north of Kenya, the valley, embracing Lake Turkana (160 miles long), is broad and shallow while further south it narrows and deepens and is walled by escarpments 610 to 930 meters high. West of the Rift Valley, the plateau descends to the plains that border the Lake Victoria (Appendix 3).

The principal rivers are the Tana and the Athi, flowing southeast to the Indian Ocean, the Ewaso Ngiro flowing northeast to the swamps of the Lorian Plain, and the Nzoia, Yala and Gori, which drain eastward into the Lake Victoria. Low plains rise to central highlands, divided by the Great African Rift Valley (Appendix 3).

Kenya's population of over 31.000.000 is composed of 97% of people of African descent. This group is composed of over 70 different tribal groups. Among them the largest are the Kikuyu, Kamba, Gusii, Luhya, and Luo. Kenya's primary languages are English and Swahili, though regional tribal languages abound.

Agriculture is the mainstay of Kenya's economy, contributing over one third of the Gross Domestic Product (GDP). Agricultural crops include tea, coffee, horticultural products, pyrethrum, pineapples, sisal, tobacco and cotton. Food crops for domestic consumption include maize, beans, cane sugar, wheat, rice, bananas, cassava, potatoes, sorghum, millet, etc. and livestock farming.

Agriculture is the backbone of the economy and principal source of livelihood for Kenya's poor people. Seven out of ten Kenyans cultivate crops, raise livestock or engage in fishing and forestry. The agricultural sector is plugged into global and regional markets, and the country is a world leader in the export of tea, coffee and horticultural products. The dairy sector is among the best developed in Africa, and the Kenya Highlands comprise one of the continent's most successful agricultural production regions. For more than a decade, the horticultural sector has shown dynamic, sustained, market-driven growth. Smallholders produce about 80 % of horticulture exports.

Agriculture and agro-related activities account for more than 50 %of GDP, generating employment for about 70 % of the population, 80 % of export earnings, 70 % of materials for agro-industrial production and a major share of government revenue.

Livestock population was estimated to be in 2003:

Cattle	12. 532. 300
Sheep	9. 938. 800
Goats	11. 945. 500
Pigs	415. 200
Camels,	157. 600
Poultry	25. 757. 300
Donkeys	424. 000
Rabbits	514.200

In the area of globalisation, the development and growth in many countries depends on the performance of their agricultural economies, and this, in turn, directly relates to the quality of their VS. To be effective, VS should operate based on scientific principles and be technically independent and immune from political pressures of its users'. However, efforts to strengthen official services, requires the active participation and investment on the part of both the public and the private sectors. To assist in this effort, the World Organization for Animal Health (OIE) and the Inter-American Institute for Cooperation on Agriculture (IICA) have joined forces to develop the Performance, Vision and Strategy (PVS) tool. The PVS tool can assist a VS to evaluate its current level of performance, to form a shared vision with the private sector, to establish priorities and to facilitate strategic planning in order to take full advantage of the new opportunities and obligations of globalization.

The OIE promotes animal health in the international trade of animals and their related products by issuing harmonized sanitary guidelines on certification and disease control methods and working to improve the resources and legal framework of the VS. Likewise, IICA helps to strengthen VS in the Americans so they can be more efficient and competitive nationally and internationally and can contribute to the improved health of their consumers. Both organizations share a

mutual interest to help countries comply with the SPS- Agreement of the WTO and the standards, guidelines and recommendations of the OIE. The traditional mission of VS has been to protect domestic agriculture and, over time, most of its resources were channeled toward the control of pests and diseases that threatened primary animal production. The focus of the services provided were from the national borders inward and the credibility of these services, in the eyes of its users and other countries, depended in large measure on the effectiveness of its domestic programmes, and its response to emergencies arising from the entry of foreign pests or diseases.

Experience has shown that those countries, whose VS are more developed and credible in the eyes of its users, trading partners and other countries, contain four fundamental components: 1) the technical capability to address current and new issues based on scientific principles, 2) the human and financial capital to attract resources and retain professionals with technical and leadership skills, 3) the interaction with the private sector in order to stay on course and carry out relevant joint programmes and services and 4) the ability to access markets through the compliance with existing standards and the implementation of new disciplines such as harmonization of standards, equivalence and regionalization. These four components provide the basic structure of the PVS tool.

The PVS tool is flexible to apply and use, focusing on the functions and results of the VS. As an additional reference, Chapter 1.3.3 on the Evaluation of VS, in the Terrestrial Animal Health Code of the OIE, expands upon and further clarifies some of the levels of advancement described in selected variables of the PVS tool. The tool can be used to facilitate the dialogue with different users in the public and private sectors that share a common interest in improving the vision and performance of the official services. For example, the interested parties can jointly participate in establishing the current level of performance, identifying priorities and adopting actions that strengthen the national services. In addition, the director of the VS can use the tool to monitor progress in each one of the four components.

For the VS, the results of an evaluation using the PVS tool can help to: 1) indicate the overall performance of each one of the four components, 2) rate the relative performance within each one of the variables, 3) compare the performance of the national veterinary service with that of other VS in the region or globally, in order to explore areas for cooperation or negotiation, 4) identify the differences in the responses of the different users in order to arrive at common points of view, 5) foster common understanding in order to achieve greater levels of advancement, 6) help determine the benefits and costs of investing in VS and obtaining assistance from financial and technical cooperation agencies, and 7) provide a basis for establishing a routine monitoring and follow-up mechanism on the overall level of performance of the VS over time.

II. Organization of the evaluation

In response to the request of the DVS of Kenya the OIE Director General communicated in his letter of 23 March 2007, reference 07.06/GF/SB, the composition of the evaluation team as Dr. Ahmed Mustafa Hassan (Sudan) as the Team Leader and Dr. Norman Willis (Canada) as expert of the team (Appendix 1). Furthermore he stated the commitment of OIE to defray all the expenses necessary for the experts, while Kenya will cover the expenses of local nature. The dates for the team to conduct the mission were also fixed to be 10 – 28 April 2007.

The Team Leader in close coordination with the expert prepared a list of baseline information (Appendix 6) to be prepared by the VS of Kenya. This information is relevant to the four fundamental components mentioned above. Simultaneously, a provisional programme (Appendix 7) was sent to the country for comments. In that programme, meetings with the Minister of Livestock and Fisheries Development, the Director as well as senior staff of VS, and relevant institutions were proposed. In addition, specific sites of veterinary concern to be visited were identified. Specific conditions were considered by the team in laying out the provisional programme: 90% of the time is spent in the veterinary field, while 10% is devoted to other relevant activities.

After finalization of other procedures, financial and logistical, the evaluation team arrived in Kenya on the 9th April, 2007, before starting the mission. The team started its programme immediately on the next day, 10th April, 2007. Based on the programme proposed, the team started its first opening meeting with the DVS, all the chiefs of the divisions and other senior staff of the VS (Appendix 11). In that meeting the team presented an introductory note on the PVS tool and the purpose of the mission. Also, the meeting commended the OIE initiative to approve and send the team and commented on the proposed programme including the time frame. The programme was agreed upon with minor modifications and named the specific sites to be visited (Appendix 7). The team emphasized the necessity of meeting the chiefs of the veterinary divisions individually instead of meeting them in groups. This is for the purpose of data collection in detailed form. The implementation of the programme went smoothly and according to the schedule. In the meeting it was clearly confirmed by all the participants that the data and information requested by the team will be completed during the course of the mission and before the team left for field visits.

Within the first week of the arrival of the team, the team met with HE The Minister of Livestock and Fisheries Development. The meeting was also attended by the Permanent Secretary and the DVS. The Minister expressed his concern about the mission and thanked OIE for sending the team. He referred to the Mali meeting of 2006 and the recommendations of that meeting which mainly concern disease control and the emphasis of the OIE role in the international community as the main player in the field of animal health and disease control for the benefit of the people in food security and poverty alleviation. He mentioned that 90% of

livestock is located in ASAL which are not receiving adequate veterinary services. He also confirmed the Kenyan plans towards trade in livestock products instead of live animals. For that purpose a lot of export facilities are necessary like quarantine stations, holding grounds and slaughterhouses, some of which are constructed and others are to be established in the high livestock producing areas and in ports.

The results and the findings of the meetings with individual divisions in the VS and veterinary authorities at field level and relevant institutions are included in the relevant fundamental components as follows.

Part III. Results of the evaluation

Regarding the critical competencies of each fundamental component it is discussed below based on the data collected from the VS.

Chapter 1: Human and Financial resources:

A: Findings against critical competencies

1.1 Professional and technical competence of the personnel of the veterinary services:

This critical competence is the measure of the capability of the VS to efficiently carry out their veterinary and technical functions measured by the academic qualification of the personnel in veterinary, other professional and technical positions.

1.1. A. Veterinary and other professionals (university qualification).

This indicates the capability of the VS to efficiently carry out their veterinary and technical functions, measured by academic qualifications of their personnel in veterinary, other professionals and technical positions.

The VS of Kenya is part of the Ministry of Livestock and Fisheries Development. It is headed by the DVS who is accountable to the Permanent Secretary of the Ministry. The VS, based on the organization structure comprises of the following nine divisions (Appendix 14):

Disease control

Vector borne disease control

Breeding services and veterinary farms

Public health and food hygiene

Hides and skins

Extension

Training, clinics and inspectorates

Laboratory services

Project Management and support unit (PMSU)

The professional and technical competence of the VS in the country could be concluded from the following data:

Out of approximately 2000 persons, the VS accommodates the following numbers of veterinary staff, technicians, skilled workers and auxiliary staff:

Veterinary officers	410 (21.6%)
Zoologists	9 (0.5%)
Livestock officers	153 (8.1%)

However the zoologists are in areas where tsetse fly is a problem. It is estimated that more than 22% of the VS staff hold a university degree.

The ban on employment since 1989 resulted in a severe adverse impact on the veterinary service delivery. It worth mentioning, that the retirement age in the public sector is 55 years. Those who retire have not been replaced by others through new recruitment. This has created vacancies at the field level in the provinces and districts and at the vital management bodies like quarantine stations and disease control.

Level of advancement is 2

The majority of veterinary and other professional positions are occupied by approximately qualified personnel at the central and provincial levels.

1.1. B veterinary para-professionals and other technical personnel:

Livestock health assistants	1257 (66.3%)
Laboratory technicians	67 (3.5%)
Total	1896 (100%)

The above mentioned veterinary and technical staff are distributed in headquarters and field offices of districts and provinces.

The level of advancement is 3.

The majority of technical positions at central and provincial levels are occupied by approximately personnel holding technical qualifications.

1.2. Continuing education:

This indicates 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 an annually reviewed training programme.

Regarding the continuing education; the VS is training its staff to the following levels: PhD and MSc, (these are locally in the University of Nairobi and internationally in recognized academic institutions). And to the BSc level in leather science and technology in the University of North Upton, Diploma in Egerton University, Polytechnics and Bukura Institute. Short professional courses for the various categories of veterinary staff are conducted locally and abroad. Administrative management training is done locally at the Kenyan Institute of Administration and also abroad.

the VS is developing links with the national institutions to obtain training opportunities for the veterinarians and para-professionals. However, the financial limitations always affect the execution of the training programs.

The Animal Health and Industry Training Institute (AHITI) is one of the Ministry's institutes with a mandate to train animal health technicians and meat inspectors. However the VS conducts ongoing training for its staff whenever resources are available.

The level of advancement is 4.

The VS has access to continuous education that is reviewed annually and updated as necessary and it is implemented for more than 50% of the relevant personnel.

1.3. Technical independence:

This critical competence indicates the capability of VS to carry out its 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 WTO/SPS agreement when applicable).

In reference to the Technical Independence, the DVS is chosen from a list of Kenyan veterinarians based on scientific competence, field experience and recognized personality. There are specific procedures followed in the selection of the DVS. The process is initiated by the Permanent Secretary of the Ministry who declares the vacancy of the DVS to the Kenyan Public Service Commission (KPSC). The latter is an independent body established by the Kenyan constitution to oversee the public services. The committee then advertises the post in the media. The qualification requirements of the post which are mentioned in the advertisement include, as a minimum a BVSc degree certificate from a recognized university and professional experience of at least 10 years.. Interested applicants apply for the post. Then an interview panel from the commission will be organized. The interview panel is usually chaired by the chairperson of the KPSC with the Dean of the Faculty of veterinary medicine, University of Nairobi, and the Permanent Secretary as members in addition to other members of the commission. Then selection is carried out based on the merits. Whenever the appropriate candidate is selected, the commission immediately declares the appointment of the DVS, and the Permanent Secretary finalizes the procedures of recruitment with the Ministry of Public Services. The DVS is only removed from his post in the public interest if he proves that he is not performing well, reaches retirement age or due to sickness. The DVS takes decisions pertinent to his duties, in particular disease declaration, based on scientific and legal basis. The decision is completely independent of any other influences and is supported by the articles of the Animal Disease Act Cap 364

The level of advancement is 5.

The technical decisions are made and implemented in full accordance with the country OIE obligations(and with country WTO/SPS Agreement where applicable).

1.4. Stability of policies and programs:

This reflects the capability of VS to implement and sustain policies and programs over time measured by the frequency by which the public sector of the VS is reorganized.

The stability of the policies of the VS has been affected by the restructuring and reorganization. This adversely affected the sustainability of the policies and plans. The average office life of a DVS has been about three years in maximum. This did not enable the director to implement the programmes he has planned.

The level of advancement is 3

The organizational structure of the public VS is substantially changed each time there is a change in the political leadership.

1.5. Coordination capability of the sectors and institutions of VS (public and private)

This indicates the capability of the VS to coordinate national activities including disease control and eradication programs and responds to emergency situations.

The coordinating capability of the sectors and the institutions of the veterinary VS is quite satisfactory from the data collected. It is clear from the interviews and visits the team has undertaken, that the VS is developing links with all the institutions and sectors relevant to the VS. The university in collaboration with the VS is actively involved in organizing joint training workshops and seminars in different subject lines. One of the outstanding outputs of such collaboration is that the university in close consultation with the VS is planning to establish a centre for the monitoring and management of emerging and re-emerging livestock diseases. In addition it released one of its staff to work intimately with the VS in planning the prevention and control of avian influenza. The private sector at the field level is working in harmony with the VS especially in areas of disease notification and control. The same fact is also applicable to the pastoralist associations and livestock marketing organization.

The team also paid courtesy calls to AU/IBAR, FAO, World Bank and European Unions offices resident in Kenya. They confirmed their contribution to the VS through a variety of projects of a regional and local nature. This support is sometimes provided in the form of technical and logistical inputs as was done during avian influenza and RVF emergencies. All verified the existence of the technical capabilities in the VS, however they related the substantial is a big shortage in the number of professionals and technicians.

The producers are always alert for disease reporting. They recognize that it is in their interest to report disease to the government or private veterinarian, to the provincial or district director of VS or sometimes directly to the D VS.

The level of advancement is 4.

There is a coordination mechanism with a clear chain of command at the national level for most of activities and these are universally implemented throughout the country.

1.6. Funding:

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

Funding of the VS activities is considered to be the focus of concern for most of the public sectors in Kenya. The team met with The Ministry of Finance and Planning. The authorities expressed their commitment to livestock. They disclosed that, although the funding of the livestock sub-sector was only 3 – 4% of the GDP in the past, but it had been increased to 6% in the previous budgetary year and that they are targeting to achieve 10% in the coming budget which will begin in 2008. The livestock sub-sector is now enjoying the contribution of seven donors who contribute 1.3 billion Kenyan shillings (Ksh) (20 million US\$). These funds are targeted towards dairy development in the highlands with the objective of poverty alleviation. This is in addition to FAO support on avian influenza and RVF emergency campaigns. The livestock development in ASAL areas is mainly handled by The World Bank and the African Development Bank national projects. Furthermore, the Ministry confirmed that it had made a significant contribution of 100 million Ksh as an initial allocation to the RVF outbreak, before the intervention of the donors. The Ministry is also supporting the projects in the ASAL areas with allocations reaching 10 – 30% of the donor contribution as co-financing. The Ministry expressed its readiness to accept any feasible proposal from livestock on the development of export activities.

The claims of limitation of funding were raised everywhere in the sectors related to the VS. Although the VS has the liberty of accessing three lines of funding, namely, recurrent budget, development funds and emergency funding, however, are inadequate. The VS is competing with other sectors to access meagre national resources. This competition is unbalanced which doesn't enable the VS to obtain its appropriate share. This situation is not only observed in the central VS but it is also reflected in the provinces and districts. The ultimate outcome from this is inadequate services delivered to the users.

The level of advancement is 2.

Funding for the VS is clearly defined and regular but is not adequate for the required base operations..

1.7. Contingency funding:

This indicates the capability of VS to access extra-ordinary financial resources in order to respond to emergency situation or emergency issue, measured by the ease of which contingency funding can be made available when required.

There is no recognized fund allocated for contingency funding. During the incidence of RVF, a small amount of funding was allocated. This fund did not cover all the operational activities of the campaign. The same is happening with the avian influenza emergency preparedness campaign.

The level of advancement is 2.

Contingency funding arrangements with limited resources but these are inadequate for expected emergency situations (including emerging issues).

1.8. Capability to invest and develop:

This indicates the capability of VS to secure additional investment over time that lead to a sustained improvement in VS.

The VS, as a public service delivery body, is not allowed to open avenues for the investment. It is completely dependent on the financial resources to be provided by the treasury within the annual budget.

The level of advancement is 2.

The VS occasionally develops proposals and secure funding for improvement in infrastructure and operations through extraordinary allocations.

With the intention of proposing recommendations to improve the VS pertinent to this fundamental component, the following are offered.

- As it has been stated above, the VS is critically in need of strengthening its numbers of professional and technical staff. The reopening of employment in the public sector, proposed for July 2007, will definitely address the problem. As it has been estimated by the VS, the recruitment of almost 500 veterinarians and technical staff will be needed to fill the gaps which have accumulated from staff retirement.
- There should be a master plan for funding proposed by the VS in which they could include all their needs based on a technical and socio-economical study, preferably to be conducted by specialized experts. This study should cover all aspects of the VS particularly capacity building, training, communication and information technology, infrastructures and provision of transport facilities. However, the most urgent need is the provision of financial support for the VS to cover the immediate needs for emergency preparedness in monitoring and preventing Avian Influenza and to complete the programme to eliminate Rift Valley Fever (RVF) from the country as well

as prepare for any future emergencies. For example there is an indication that the RVF virus doesn't completely disappear from the country. The beginning of the rainy season this year indicates the possibility of another episode of flooding which may result in the reactivation of the infective agent and its vector. The VS, assisted by other international and regional organisation, has already developed a strategic plan which should serve as a basis for such a master plan. The team strongly recommends that it should be considered as a major priority in future funding.

- The VS is actively planning to increase the veterinary field services especially in the ASAL of the North. This could only be achieved through changing the existing conventional pattern of delivery of veterinary services to its users. An alternative approach to the delivery of veterinary services, which has proved to be feasible and successful in similar areas in other countries, is an integrated pattern of services. It mainly consists of the introduction of a mobile unit system which accommodates, in specially designed vehicles, all VS including those responsible for prevention, treatment, epidemiological surveillance, laboratory investigation, extension and animal production improvement. This would minimize the operational cost of sending every one of the above mentioned specialities alone. The MPTU in Isiolo could also be improved and upgraded to supplement this approach.

Chapter 2: Technical Authority and Capability

This fundamental component addresses the authority and capability of the veterinary services to develop and apply sanitary measures and science based procedures supporting those measures.

II.1. Laboratory disease diagnosis:

This indicates the authority and capability of the veterinary services to identify and record pathogenic agents including those relevant for public health that can adversely animals and animal products.

The veterinary laboratory which is a part of the VS is mandated to confirm animal disease diagnosis, disease monitoring, search and surveillance, monitor the effectiveness of vaccination campaigns, quality regulation of veterinary inputs and outputs, and certification of imports and exports.

There are seven satellite laboratories for disease investigation and diagnosis located in provinces. The total manpower in these laboratories is 136 staff members. Out of these, 39 are veterinarians, 58 are technical staff and the rest is supportive staff.

The veterinary laboratories in the country have the capabilities to collect samples from any place in the country and confirm the diagnosis using the internationally recognized standards and protocols.

Level of advancement is 4

In case of ew or emerging diseases in the region or world, the VS have access to national or international reference laboratories and can collect and ship to an OIE reference laboratory which results in a correct diagnosis.

II.2. Risk analysis:

This indicates the authority and capability of the Vs to base its risk management decisions on a scientific assessment of risks.

This system is not practiced by the VS. The VS lacks capacities and resources to implement an appropriate system of risk analysis and management at the national level. This may either put at risk to the sanitary status of the country or fail to achieve the benefit of international trade.

Level of advancement is 1

The risk management decisions are not usually supported by scientific risk assessment.

II.3. Quarantine and border security:

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

Concerning the quarantine stations and the border posts, it is indicated by the list of certificates and forms used in export/import activities are in Appendix 13. The infrastructures of the import/export facilities need significant improvement.

Concerning the legal framework which governs the activity of VS, The VS is implementing some procedures which to some extent can minimize the risks and hazards due to importation of micro organism contaminated products. However, the VS have a lack of appropriate capacities to implement a compliance programme consisting of inspection and verification of regulatory norms for selected products and processes. This was indicated in the level of staff working at the ports who are entrusted to implement such standards. The import/export facilities are in need of rehabilitation and their mandate is to be revived

Level od advancement is 1

The VS can not apply any of quarantine or border security procedures for animals and animal products with their neighbouring countries of trading partners.

II.4. Epidemiological surveillance:

This indicates the authority and capability of the VS to determine verify and report on the sanitary status of the animal population under their mandate.

The VS conduct regular surveillance and disease searching for all the 26 notifiable diseases. The surveillance formats are in Appendix 10.

The VS achieved significant output in the Rinderpest eradication programme. The country is divided into two sectors. The Western sector was declared free of disease and the country received a certificate from OIE. The Eastern sector was declared provisionally free and the process of applying for freedom from this disease is ongoing (Appendix 16)

The level of advancement is 4

The VS can conduct active surveillance programme in animal populations for diseases of economic and zoonotic importance and systematically report the results.

II.5. Early detection and emergency response:

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

In addressing the issue of early detection of animal diseases in Kenya, there is a central veterinary laboratory in Kabete, and a Foot and Mouth Disease laboratory in Embaksi. They are both for disease diagnosis and the latter is also for vaccine production.

The VS possesses to some extent the necessary legal authority to contain any disease outbreak. This has been efficiently achieved during the recent outbreak of RVF. However inadequacy of financial resources always stands as the main handicap in implementing and securing the sustainability and continuity of the control programmes.

The level of advancement is 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.

II.6. Emerging issues:

This reflects 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 sanitary status of the country, public health, the environment, or trade in animals and animal products.

In attempting to address the emergency preparedness particularly for avian influenza, the VS hasn't received sufficient funding as yet to implement the

strategy which was developed through the assistance of international and regional organisation (refer to above fundamental component).

The level of advancement is 2

The VS monitor and review developments at national and international levels relating to emergency issues.

II.7. Technical innovation:

This indicates the capability of VS to keep up-to-date with the latest scientific advances and to comply with the standards of OIE, (and Codex Alimentarius Commission where applicable).

The VS carries out a specific programmes that identifies technical innovations which can improve its operation and procedures. Despite all this the team observed that the knowledge about the OIE and its standards and norms among the field staff is very limited.

The level of advancement is 4

The VS incorporate technical innovations and international standards into selected policies and procedures in collaboration with stakeholders.

II. 8. Veterinary medicines and biological:

This indicates the authority and capability of the VS to regulate veterinary medicines and biological.

The VS carries out its duties in relation to veterinary medicines and biological products in close collaboration and interaction with Pharmacy and Poisons Board under the auspices of the Ministry of Health and the Kenyan Agricultural Research Institute (KARI). It does not have authority to control veterinary medicines.

The level of advancement is 1

The VS can not regulate the usage of veterinary medicines and veterinary biological.

Regarding this fundamental component the team recommends the following:

- National laboratories should be strengthened through increasing technical capabilities. Consideration should be given in establishing a level 3 laboratory for multiple users, and to serve East African region as a whole. The linkages and twinning procedures with regional and international laboratories particularly OIE reference laboratories and collaborating centres should be encouraged. It is known that the staff in the laboratories is well trained. Thus the provincial disease investigation laboratories should be supplied with trained personnel, additional

diagnostic equipment and supplies and improved facilities. This will increase the capabilities of the VS at the provincial and district levels.

- Due to limitation of knowledge about the OIE and the other international standards at the field level, the VS should approach the OIE to second experts to participate in locally organized training workshops and seminars for senior technical staff at district, provincial and central levels.
- As a priority to increase the capacities of the VS staff, training in risk analysis should be urgently and strongly emphasized. It is impossible to run effective import/export activities without implementing risk analysis procedures. Thus the import/export function is a unique and specialized activity of paramount importance. It is recommended that the department of quarantine should be upgraded and considered as one of the main activities of disease control. Senior and advanced trained officers should be located in the ports and other main livestock points of entry.

Chapter 3. Interaction with Stakeholders

This indicates the capability of VS to collaborate with and involve stakeholders in the implementation of programmes and activities

III.1. Communication

This reflects the capability of VS to keep stakeholders informed, in a transparent effective and timely manner, of VS activities and programmes and in development in animal health and food safety.

The VS maintains an official communication outlet, which users can consult regarding standards, regulations and notifications. However due to lack of appropriate transportation, the VS is unable to cover remote areas where pastoralists and herders have a critical need of communication and extension services.

The level of advancement is 3.

The VS maintains an official focal point for communication but it is not always up-to-date providing information.

III. 2. Consultation with stakeholders:

This reflects the capability of VS to consult efficiently with stakeholders on VS activities and programmes and in development in animal health and food safety. The VS is continuously liaising with the stakeholders and coordinating efforts for the benefit of improving animal health status in the country.

In the meeting with the Dean of the Faculty of Veterinary Medicine, University of Nairobi, he explained the different patterns of collaboration with the VS. He emphasized that there is a continuous review of the faculty curriculum with

active participation of all the stakeholders particularly the VS. The university believes in the importance of providing veterinary graduates with skills, knowledge and the ethics and behaviors of the veterinary profession. To achieve this, the faculty is keen enough to assign each student to one of the veterinary centers for eight weeks annually.

The team met with the Kenya Agricultural Research Institute (KARI). This body is responsible of all the agricultural research activities including the veterinary research and vaccine production. The institute collaborates with VS in securing the vaccine needed for the control of various diseases. Moreover it is working closely with the VS in research activities associated with the control of tick and tick borne diseases, East Coast Fever, piroplasmiasis, heart water and malignant catarrhal fever.

In addition the team also met with the chairman of Kenya Livestock Marketing Council (KLMC) who confirmed their active interaction with the VS. He also noted that they have developed links between the three partners, VS, KLMC and International Livestock Research Institute (ILRI). Their collaboration includes development of a marketing data-base located in ILRI which is easily accessible to all livestock traders. He raised the challenges facing the VS and emphasized the adverse effect of the lack of hiring veterinarians and other technical staff. The real implication of this means that a large number of private veterinarians are concentrated in the high livestock producing areas where work is more feasible rather than in the ASAL areas which are considered as hardship areas despite the fact that 90% of livestock are in these areas. Thus these areas in the existing situation of low public funding are proportionally deprived of appropriate veterinary services.

The team visited the Kenya Meat Commission (KMC) which is a parastatal body accountable to the Ministry of Livestock and Fisheries Development. It controls abattoirs and strictly implements the food safety standards based on Codex Alimentarius and ISO 2200. The abattoir in Nairobi only slaughters animals supplied from disease free certified ranches accompanied by health certificate issued by VS. The abattoir is an integrated compound, consisting of administrative premises and a small diagnostic laboratory capable of performing microbial tests and detection of level of metals in carcasses. It is facing some problems of inadequate transport facilities and a shortage in the number of veterinarians and other technical staff. KMC has been severely affected by the RVF outbreak and now it is working below its capacity.

The team visited Meru Dairy Goat Breeders Association (MDBA) in Meru district in Eastern Province. This is one of the successful stories of collaboration between the producers and the VS in the district. The association introduced Toggenburg goat breed which it cross-bred with local breeds. Through receiving regular technical advice and proper guidance from the VS, they were able to increase the local

breed milk production from 0.5 liter per day to 6 liters per day with an average of 4 liters per day. The VS has improved the health status and productivity of dairy goat. Within ten years the association has been able to distribute 50,000 dairy goats to a considerable number of producers. It was found that 75% foreign blood is the most appropriate level for high milk production, adaptability and the ability to overcome complications of improper management. One of the objectives of the project was to address poverty alleviation by providing goats to the poorest people based on series of poverty indicators.

Moreover, the team was able to meet pastoralist organisation in Isiolo (Eastern Province). The members of that body expressed their deep concern for the future of the holding ground which had been established in the early fifties and which had strongly served livestock marketing. They indicated that the utilization of that facility stopped in early nineties. They raised their strong request for the re-establishment of the project again.

The team also visited a number of private veterinary practitioners, ranches, holding grounds, proposed export quarantine and dairy plants in Eastern, Rift Valley and Coast provinces. All these stakeholders expressed their satisfaction on the level and degree of the collaboration with the VS.

The level of advancement is 3

The VS maintains formal consultation with stakeholders.

III.3 Official representation:

The capacity of VS to regularly and actively participate in, coordinate and provide follow up in relevant meetings of regional and international organizations. Including the OIE (and Codex Alimentarius Commission and WTO/SPS committee where applicable).

The VS is so active in the meetings organized by the above mentioned organizations. However, sometimes the financial constraints do not allow the VS to participate in some meetings.

Level of advancement 3

The VS participate actively in the majority of relevant meetings.

III.4. Accreditation/authorization/delegation:

This indicates the authority and capability of the public sector of the VS to accredit/authorize/delegate the private sector to carry out official tasks on its behalf.

The VS has the authority to accredit third parties but no specific accreditation activities are practiced. The Kenyan Veterinary Board is the statutory body mandated to regulate and control the veterinary profession. The Kenyan Veterinary Association on the other hand is mandated to achieve the welfare of

both the veterinarians and the animal. These two bodies are working closely with the VS.

The role of private veterinarians in the delivery of veterinary services is highly appreciated. The private veterinarians continuously interact with the producers and they are considered as the main veterinary service providers in high livestock potential areas. The private veterinarian in the area is often the first to report disease incidence to the district veterinary officer. This was clearly observed in areas of high livestock production, which were visited by the team in the Rift Valley and in Coast and Eastern Provinces.

The level of advancement is 3

The public sector of the VS develops accreditation/authorization/delegation programmes for certain tasks but are not routinely reviewed.

III.5. Veterinary Statutory Body:

The Veterinary Statutory Body is an autonomous authority responsible for the regulation of the veterinarians and veterinary para-professionals as indicated in the Code.

Concerning the role of veterinary statutory body, the team also met with Kenyan Veterinary Board (KVB) which is the only veterinary statutory body entrusted to regulate the veterinary profession through regular review and revision of the Veterinary Surgeons Act Cap 358. Also its mandate is to promote continuous professional development. The board is also entitled to review the quality of the veterinary education through active involvement in evaluation of the curriculum, staff and training facilities on a regular basis. The board as well is also responsible for the registration of veterinarians and for deciding whether veterinary graduates from outside Kenya have equivalent degrees or need for a qualifying examination.

Level of advancement is 4

The VSB has the legislative framework to regulate veterinarians and veterinary para-professionals across the whole of the VS

III.6. Implementation of joint programmes:

This indicates the capability of VS and stakeholders to formulate and implement joint programmes in regards to animal health and food safety.

The department of veterinary public health in the VS leads an optimistic programme to explore its role in the protection of human and animal health. The department coordinates closely with the Ministry of Health in matters associated with food inspection and hygiene. The department through its technical arms distributed in all districts is controlling meat inspection and hygiene in seven export abattoirs and a considerable number of slabs.

The level of advancement is 2

The VS and stakeholders have established sporadically joint programmes but these are not routinely updated.

Concerning this fundamental component the team recommends the following:

- Since Kenya is a member of the WTO, application to the WTO should be forwarded requesting the provision of training opportunities in SPS. This is of paramount importance and must include risk analysis and management.
- All parties concerned including VS, KVB and KVA should work together to strengthen and accredit the role of private veterinarians in rendering proper veterinary services through training of the veterinarian and securing funding for them.
- The team recommends that the holding areas in the ASAL should be re-established with the construction of slaughter facilities and appropriate staff to assure the delivery of veterinary services.

Chapter 4: Access to markets:

This reflects 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.

I V. 1. Preparation of legislation and regulations and implementation of regulations:

This indicates the authority and capability of the VS to actively participate in the preparation of national legislation and regulations, and to implement animal health and food safety regulations for animal, animal products and process under their mandate

Concerning the legal framework which governs the activity of VS, the VS is implementing some procedures which to some extent can minimize the risks and hazards due to importation of microorganisms. The legal framework which governs the activity of VS, the VS is implementing some procedures which to some extent can minimize the risks and hazards due to importation of microorganism contaminated products. However, the VS has a lack of appropriate capacities to implement a compliance programme consisting of inspection and verification of regulatory norms for selected products and processes. This was indicated in the level of staff working at the ports who are entrusted to implement such standards..

The level of advancement is 3

The VS have the authority and capability to participate in the preparation of national legislation and regulations and to implement resultant regulations officially.

IV.2. Stakeholders compliance with legislation and regulations:

This indicates the authority and capability of the VS to ensure that the stakeholders are in compliance with animal health and food safety

Farmers usually hide some information associated with disease outbreaks if these outbreaks affect their movement from an area to another although this is not in line with the national sanitary regulations.. The VS in remote areas hardly discover this pattern of information hiding. However, if the VS discover this, through its regular surveillance and monitoring, it can implement the legislative procedures which can eliminate and contain disease outbreak.

The level of advancement is 2

The VS implement programmes consisting of inspection and verification of compliance with regulation relating to animals and animal products, report instances of non-compliance, but generally donot take further actions.

IV.3. International harmonization:

This indicates the authority and capability of VS to be active in the international harmonization 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.

The import/export facilities are in need of rehabilitation and their mandate is to be revived. However, the VS has a lack of appropriate capacities to implement a compliance programme consisting of inspection and verification of regulatory norms for selected products and processes. This was indicated in the level of staff working at the ports who are entrusted to implement such standards. The import/export facilities are in need of rehabilitation and their mandate is to be reviewed.

The level of advancement is 3

The VS monitor the establishment of new and revised international standards and periodically review national legislation, regulations and sanitary standards with the aim of harmonizing them, as appropriate, with international standards but do not actively comment on the draft standards of relevant intergovernmental organizations.

IV.4 International certification:

This indicates 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.

The VS formulates and adopts regulatory norms, applying procedures that take into consideration the opinions of its users

The level of advancement is 3

The VS develop and carry out certification programmes for certain animals and animal products, services and processes under their mandate in compliance with international standards.

IV.5. Equivalence and other types of sanitary agreements:

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

The VS has the authority to negotiate and approve equivalency agreements with other countries. This has only been practiced to a limited degree since livestock export stopped in 1996. Only small consignments have been sent to a limited number of countries, namely, Qatar, Mauritius, Burundi and Egypt.

The level of advancement is 3

The VS have implemented equivalence and other types of sanitary agreements with trading partners on selected animals and animal products and processes.

IV.6. Traceability:

This indicates the authority and capability of the VS to identify animals and animal products under their mandate and trace their history, location and distribution.

The VS has started to impose some regulatory procedures which identifies animals to the level of location, districts, and provinces by branding, according to specific procedures. The brand comprises of two letters and one number e.g. KG7. The symbol K stands for Kenya, G, for a district and 7 for location. Thus the VS has procedures in place and can track selected animals to the level of location and their related products across that portion of the agri-food chain covered under its mandate. It is not possible as yet to identify individual animals. The VS has identified those national regulatory norms that are not in line with international norms, guidelines and recommendations.

The level of advancement is 4

The VS and their stakeholders have coordinated national procedures in place that can identify and trace animals and animal products as required for disease control and food safety purposes

IV.7. Transparency:

This indicates the authority and capability of the VS to notify the OIE of the sanitary status and other relevant matters (and to notify the WTO/SPS committee where applicable), in accordance with established procedures.

The VS notifies the WTO/SPS and the OIE of its regulatory norms, and the OIE of its sanitary status, in full compliance with the criteria established by these organizations.

The level of advancement is 3

The VS notify in compliance with the procedures established by these organizations.

IV.8. Zoning:

This indicates 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).

The VS can identify areas to be regionalized, and establish the current sanitary status of selected animals and their related products originating from these prescribed areas.

The level of advancement is 2

As necessary the VS can identify animal sub-population with distinct health status suitable for zoning.

IV.9. Compartmentalization:

This indicates 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).

The VS is aware of the concept. However, due to limitation of financial resources and lack of capacities, the approach has been implemented in limited range in the Western part of the country. This area is considered as livestock high potential area.

The level of advancement is 2

The level of advancement is 2

As necessary the VS can identify animal sub-population with distinct health status suitable for compartmentalization.

Regarding this part the team recommends the following:

- The VS can not achieve the objective of access to market without being able to implement the appropriate sanitary measures which are in compliance with the international standards. The main tool for implementation of such standards are import/export infrastructures. The VS should review the status of the quarantine stations and a clear distinction between the quarantine stations and holding grounds should be established. This distinction should be based on the OIE standards. As well as well the use of risk analysis is essential to achieve access to markets.

- A master plan should be prepared with the objective to rehabilitate the import/export infrastructures including quarantine stations, holding grounds and slaughterhouses. The VS should enhance the linkages developed by KLMC and KMC for the promotion of Kenyan livestock products in the external markets.
- One of the most crucial issues which should be considered by the VS is the effectiveness of border livestock movement control points. Kenya is strongly encouraged to sign bilateral agreements with neighboring countries to harmonize their activities in the control of livestock movement and carrying out epidemio-surveillance.
- For the purpose of disease control and promotion of export, the VS should identify areas to establish disease free zones and compartmentalization according to OIE standards.

Part IV: Conclusions and recommendations:

The VS of Kenya has a good reputation among African countries. It is one of the oldest veterinary services. Most of the regionally and internationally recognized veterinary institutions in Africa are posted in Kenya. These are namely, Muguga reference laboratory, International Livestock Research and Development (ILRAD) and recently, African Union/Inter-African Bureau of Animal Resources (AU/IBAR) and ILRI.

(i) Current level of performance:

The team after through investigation and assessment is able to reach the following conclusions on current level of performance (Appendix 17).

(ii) Recommendations, Action plans:

The following recommendations are offered to the help in rehabilitation of the VS of Kenya based on the four fundamental components:

Human and Financial Resources:

- As been stated above, the VS has a critical need to strengthen its professional and technical staff. The re-establishment of employment to the public sector will definitely address this problem. As been estimated by the VS, the anticipated recruitment of almost 500 veterinarians and technical staff will help in filling the gaps which resulted from staff retirement.
- To address funding, there should be a master plan proposed by the VS in which they can include all their needs based on a technical and socio-economical study, preferably to be conducted by specialized experts. This study should cover all aspects of the VS

particularly capacity building, training, communication and information technology, infrastructures and provision of means of transport. However, the most urgent need is the provision of financial support for the VS to fully address the needs of emergency preparedness. This funding is needed to monitor and prevent avian influenza and to complete the programme for elimination of RVF from the country as well as to prepare for any future emergencies. For example there is an indication that the RVF virus doesn't completely disappear from the country. The beginning of the rainy season this year indicates the possibility of another episode of flooding which may result in reactivation of the infective agent and its vector. The VS, assisted by other international and regional organisation, has developed a strategic plan which could serve as the basis for the above mentioned purpose. The team strongly recommends that it should be considered as a major priority in future funding.

- The VS is actively planning to increase the veterinary field services especially in the ASAL of the North. This could only be achieved through changing the existing conventional pattern of delivery of veterinary services to its users. An alternative approach for the delivery of veterinary services, which has proved to be feasible and successful in similar areas in other countries, is an integrated pattern of services. It mainly comprises of the introduction of a mobile unit system which accommodates, in specially designed vehicles, all veterinary services including those responsible for prevention, treatment, epidemiological surveillance, laboratory investigation, extension and animal production improvement. This would minimize the operational cost of sending every one of the above mentioned specialities alone. The MPTU in Isiolo could also be improved and upgraded to compliment this objective.

Technical Authority and Capability:

- National laboratories should be strengthened through increasing technical capabilities. The linkages and twinning procedures with regional and international laboratories particularly OIE reference laboratories and collaborating centres, should be encouraged. It is known that the staff in the labs are well trained. Thus the provincial disease investigation labs should be supplied with trained personnel, additional diagnostic equipment and supplies and improved facilities. Consideration should be given to a level 3 facility which could have shared access by multiple and which could serve the entire East Africa region. These establishment would

increase the capabilities of the field VS at the provincial and district levels.

- Due to the limited knowledge about the OIE and other international standards at the field level, the VS should approach OIE to second experts to participate in locally organized training workshops and seminars for senior technical staff at district, provincial and central levels.
- As a priority to increase the capacities of VS staff, training in risk analysis should be urgently and strongly emphasized. It is impossible to run effective import/export activities without implementing risk analysis procedures. Thus the import/export is a unique and specialized activity of paramount importance. It is recommended that the department of quarantine should be upgraded and considered as one of the main activities for disease control. Senior and advanced trained officers should be located at the ports and other main livestock points of entry.
- Since Kenya is a member of the WTO, application to the WTO should be forwarded in order to provide training opportunities in SPS and this is of paramount importance. This must include risk analysis and management.

Interaction with Stakeholders:

- All parties concerned including VS, KVB and KVA should work together to strengthen the role of private veterinarians in rendering proper veterinary services through the accreditation and training of the veterinarians and securing of funding for them.
- The team recommends that the holding areas in the ASAL should be re-established with the construction of slaughter facilities and appropriate staff to assure the delivery of veterinary services in these areas.

Access to Markets:

- The VS could not achieve the objective of access to market without being able to implement the appropriate sanitary measures which are in compliance with the international standards. The main tool for implementation of such standards is import/export infrastructures. The VS should review the status of the quarantine stations and a clear distinction between the quarantine stations and holding grounds should be drawn up. This distinction should be based on the OIE standards.
- A master plan should be prepared with the objective to rehabilitate the import/export infrastructures including quarantine stations, holding

grounds and slaughterhouses. The VS should enhance the linkages developed by KLMC for the promotion of Kenyan livestock products in the external markets.

- One of the most crucial issues which should be considered by the VS is the effectiveness of border livestock movement control points. Kenya is strongly encouraged to sign bilateral agreements with neighboring countries to harmonize their activities in control of livestock movement and carrying out epidemio-surveillance.
- For the purpose of disease control and promotion of export, the VS should identify areas to establish disease free zones and compartmentalization according to OIE standards.
- For appropriate action plans to be implemented in order to revive the Kenyan VS, the following should be considered.

Action Plan:

The recommendations should be categorized into immediate, medium and long term plans.

Immediate term plans include (to be implemented within coming fiscal year, 2007/2008):

- Actions to address human resources development.
- Training in import/export sanitary procedures and in the importance of compliance with international standards in particular OIE standards and norms especially including risk assessment.
- Securing funds for emergency preparedness for avian influenza monitoring and elimination of RVF as well as for other diseases expected in near future. This also includes strengthening the laboratory capabilities.
- Employment of 500 veterinarians and technical staff.

Medium term plans include (to be implemented within 2 years starting from the coming fiscal year):

- Establishment of animal quarantine at the ports according to international specifications and under the direct supervision of the VS.
- Upgrading the quarantine department and assigning a fairly senior officer with trained veterinarians and other technical staff to be located in Mombassa. A consultant could be hired to prepare a master plan to establish this department or unit and fix the total cost of rehabilitation of infrastructures with immediate implementation.
- Introduction of mobile units in the ASAL in North to supplement the existing Mobile Pastoralist Training Unit (MPTU).

- Prepare a master plan for the complete rehabilitation and revival of veterinary services in Kenya taking in consideration the proposed strategic plan.

Long term plans starting from year 2008/2009 and continue onwards

- Implementation of the VS rehabilitation programme.
- Employment of veterinarians and technical staff every 2 years as required.
- Harmonization of activities with neighboring countries to control livestock movements and the signing of bilateral agreements in which the two countries agree on border points for monitoring of livestock movements across the borders.
- Support provinces, districts and divisions (field services) with senior, trained and technically competent staff

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