



PVS Gap Analysis

Belize

PRELIMINARY VERSION

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I B. LIST OF ACRONYMS

AH	Animal Health
AI	Avian Influenza
BAHA	Belize Agricultural Health Authority
BLPA	Belize Livestock Producers Association
BSE	Bovine Spongiform Encephalopathy
CE	Continuing Education
CIL	Central Investigations Laboratory
CVL	Central Veterinary Laboratory
CVO	Chef Veterinary Office
DVS	Director of Veterinary Services (Chief Veterinary Officer)
FAO	(UN) Food and Agriculture Organisation
END	Exotic Newcastle Disease
FMD	Foot and Mouth Disease
FTE	Full Time Equivalents
GDP	Gross Domestic Product
GOB	Government of Belize
ID	Identification
IDB	Inter-American Development Bank
ISO	International Standard Organisation
LD	Livestock Development
MAF	Ministry of Agriculture and Fisheries
MoH	Ministry of Health
NEMO	National Emergency Management Organisation
OIE	Office International des Epizooties (World Organisation for Animal Health)
OIRSA	Organismo Internacional Regional de Sanidad Agropecuaria
PCR	Polymerase Chain Reaction
PVS	Performance of Veterinary Services/ Tool of OIE
QA	Quality Assurance
QC	Quality Control
RA	Risk Analysis
SOPs	Standard Operating Procedures
SPS	Sanitary and Phyto-Sanitary
TADs	Transboundary Animal Diseases
TB	Tuberculosis
VEE	Venezuelan Equine Encephalitis
VPH	Veterinary Public Health
VS	Veterinary Service
WTO	World Trade Organisation

I C. Acknowledgements

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We are particularly grateful to Ms. Melody Robateau for her assistance with accommodation, preparation of documents and other of logistical needs. Finally thanks are due to the BAHA VS coffee club for our regular supply of fuel and to Dona Dougall Sosa for providing sweets and baked goods to power us through the toughest moments.

II. EXECUTIVE SUMMARY

Livestock production is a small but significant part of the agriculture sector in Belize as it makes important contributions to national food security and to the rural economy. It accounted for 15.7% of agricultural GDP (\$US 18M) in 2008, up from 13.5% in 2000. This contribution could grow significantly in the coming years if Belize succeeds with its plans to export livestock and livestock products to other countries of Central America and the Caribbean.

II.1 National priorities

National priorities were identified for the Veterinary Services in the following four areas:

1) Livestock development

- Implement an equivalency agreement with Mexico and the associated protocol for the export of live cattle for slaughter in Mexico. Develop similar protocols for goats to Jamaica, sheep to Mexico, cattle to Guatemala, processed meat products (beef & poultry) to Mexico and Jamaica.
- Improve production and promote diversification (other species) through improved genetics and feed management, and sustainable production systems.
- Strengthen livestock producer organisations.

2) Animal health

- Reduce the risk of animal diseases spreading to other countries.
- Strengthen existing programmes (surveillance, aquatic health, quarantine inspection, laboratory services) to support livestock development objectives.
- Prevent and control foreign diseases, most notably CSF, AI, END, FMD and BSE .

3) Veterinary public health

- Strengthen collaboration between BAHA and MoH on meat inspection both slaughter and processing.
- Strengthen control of veterinary drugs and monitoring of veterinary drug residues in foods.
- Prevent and control zoonoses, such as rabies, TB, and brucellosis.

4) Organisational structure of the VS

- Pass and implement Belize Biosecurity Bills and regulations on accreditation, TB, animal identification, and BSE.
- Build private and/or public capacity to deliver non-official veterinary services.
- Develop new units in BAHA (i.e. legal, communications, traceability, audit) and strengthen human resource capacity (e.g. recruitment and continuing education).

II.2 Expected results in terms of level of advancement

The desired results in terms of advancement were identified for each of 40 critical competencies as detailed in the report. These can be clustered into several strategic actions to address the national priorities:

1. The Belize Agricultural Health Authority needs more stable core funding if it is to realize sustainable results from the important but fixed-term investment (\$US 2.6

million over 5 years) that it will be receiving as part of an IDB loan to the Government of Belize. A more stable and sustainable financial regime is needed to reduce BAHA's unusually high reliance on user fees that currently account for 2/3 of its budget (for similar agencies in Canada and the USA fees are estimated to provide <10% and approx 33% of the budget, respectively). This high dependence on fees for service limits the capacity of BAHA to fund work in the public interest that does not produce revenues and risks bringing into question the independence of decisions taken by an agency that is largely funded by the regulated community. This funding review should also take into consideration that some of the services that BAHA must provide, for example the provision of border inspections at new ports of entry (item #3 below), are driven by national agendas other than agriculture or food production, for example the promotion of tourism and regional economic development. This funding problem needs to be addressed in the next year or so if sustainable benefits are to be drawn from the IDB investments.

2. Actions are required to strengthen and enforce existing laws and regulations. Compliance and enforcement strategies and resources are required to improve control of the use and quality of veterinary drugs and to reduce the illegal practice of veterinary medicine by non-qualified persons. These inter-woven problems threaten human health as well as strategies for development of the livestock sector. There is also a need to move forward with proposed improvements to the existing laws and regulations that govern the animal health and food safety activities of BAHA in areas such as ante- and post-mortem inspection at abattoirs, authority to accredit private veterinarians and laboratories for regulatory work, livestock identification and traceability, and requirements for specific disease control programmes such as bovine tuberculosis.
3. Strategies are needed to optimize the efficiency and effectiveness of two high cost and essential functions performed by BAHA. There is some urgency to implement this work as the results should guide significant investment planned with funds from the IDB.
 - a. Before investing further in its two small laboratories that support food safety and animal health programmes, BAHA should develop principles and strategies to guide its decisions on which analyses should be performed by its own laboratories and which could be more efficiently performed by others, including laboratories outside of the country, while still meeting programme requirements. These questions should be asked in concert with an exploration of a possible consolidation of its existing laboratories at a single location in order to realize economies and synergies in areas such as quality control, laboratory management and overhead costs (maintenance) as well as the sharing of analytical expertise.
 - b. Border operations of BAHA's quarantine service carry a heavy responsibility on behalf of the national animal health, plant health and food safety programmes. An analysis of staffing requirements of the current border inspection programme confirmed the view of managers that they have too few personnel for the six existing border points (30 staff now; 50 required), let alone for four new ports of entry that will open in the near future, requiring a further 20 staff. Before an investment of this scale is made it would be wise to review the design of the border inspection programme, taking account of international best practices and innovations, to seek efficiencies, for example through a focus on high risk pathways and commodities, increased partnerships with Customs or other agencies, reductions in hours and locations of service, and/or increased fees.

II.3 Description of the resources required, especially the human resources

In order to bring about the desired change the DVS will require additional staff and expertise. It is estimated that an additional 2-3 veterinarians and 22 other professionals are required to provide efficient delivery of services in the field and to supervise the activities of veterinary para-professionals and other technical personnel, categories in which an additional 56 staff are required. The largest increases in personnel are required to fully staff six existing and 4 new ports of entry, where they provide a full spectrum of agri-food border inspection services (ie beyond veterinary controls).

Specialised personnel are required for the veterinary services in such areas as communication, legal services, epidemiology, investigation & enforcement, audit and quality control. Some of these such as investigation and audit services may operate at the corporate level to serve all of BAHA.

II.4 Operating budget for a 5-year period and the investment budget to finance the upgrade

The budget estimates presented are for the headquarters and field operations of the Animal Health and Food Safety Departments of BAHA and also for BAHAs Quarantine Department that provides inspections for a full range of food and agricultural (including plant) commodities at six existing and a planned four new ports of entry. Some funding could also be provided, perhaps through contracts to private sector veterinarians, to provide veterinary oversight extension services of the MAF in their activities to support the national Veterinary Services.

In order to properly resource the afore-mentioned functions, an increase of overall operational budgets would be required starting with a total allocation of \$US 3.6 million in the first year and rising to \$US 3.7 million by the fifth year. An additional \$US 3 million would be needed over this 5 year period for upgrading of facilities, equipment, transportation and skills.

While this is a large investment and represents a substantial increase over current allocations of about \$US 1.75 million, it must be considered in the context of the economic interests for which it provides essential support. The proposed annual budget for year 5 of \$US 3.7 million would represent about 3% of the GDP for the agricultural sector and 18% of the GDP for the livestock sector that depend heavily on these services. It should also be recalled that the largest component (33%) of this investment is a strengthening of the quarantine services at ports of entry to protect all of the agricultural and food sector. This investment is essential to support a significant national strategy for the export of livestock and livestock products that promises a handsome return on investment. For example an early return would be the export of about 10,000 cattle annually to Mexico – worth about \$US 5 million assuming \$US 500 per head. This action alone would increase GDP from livestock farming by about 28%.

III. THE OBJECTIVES OF A PVS GAP ANALYSIS MISSION

The Performance of Veterinary Services (PVS) evaluation of the Belize Veterinary Service was conducted from January 14-25, 2008 and May 14-18, 2009. The OIE Team visited the public and private sector sites and institutions in urban and rural areas and met with government officials, veterinarians, and livestock and aquaculture producers. The final report issued in September 2009 has been published on the OIE web site¹ with the permission of the Government of Belize.

III.1 Key findings of the PVS evaluation

The PVS evaluation identified both strengths and weaknesses. Amongst the strengths, it was noted that:

- BAHA employs a small cadre of well trained and respected veterinarians and technical personnel
- The structure of BAHA and the cooperative attitudes that the Agency has fostered favour coordination amongst its Animal Health, Food Safety and Quarantine programmes. There is also good coordination amongst BAHA, NEMO, Customs, MAF and MoH on emergency planning, border control and other issues.
- BAHA is a well managed organisation. It has up-to-date and clear job descriptions and uses competency-based recruitment procedures. Performance evaluations are conducted semiannually and the results influence salary increments.
- Laboratory support is available from two small, well run laboratories in Belize while tests for other diseases are done at international laboratories.
- Passive surveillance is conducted for a number of livestock and poultry diseases.
- Active surveillance has been conducted periodically on CSF, FMD and AI.
- Good systems and partnerships are in place for early detection and emergency response and simulation exercises have been conducted.
- BAHA has a well structured quarantine service with clearly documented procedures to manage border controls for animal and plant health and food safety at several ports of entry. .
- BAHA enjoys good physical facilities with a few notable exceptions.
- The current Veterinary Services of BAHA provide a sound platform on which to build future programmes. BAHA has the expertise and legal authority to play a strong role in food safety promotion and oversight from “gate to plate”.
- BAHA received significant funding from IDB when it was created and a further investment is under consideration in collaboration with MAF, FAO and IDB under a broad sectoral strategy.
- There are a number of venues for stakeholder engagement including the participation of selected stakeholders on BAHA’s Board of Directors, a multi-stakeholder Zoonoses Committee, sectoral food safety working groups and an annual SPS workshop.
- Belize is active in key international fora including OIE, CODEX, WTO (SPS), with its current CVO serving in a regional executive capacity in the case of OIE.
- The Belize Veterinary Surgeon’s Board is established in law and has a reasonable degree of autonomy.
- BAHA has a broad and modern legislative framework. Updates to the legislation

¹ http://www.oie.int/download/PVS_Rap/FinalReport-Belize.pdf

- are in preparation to further strengthening key areas
- BAHA has the authorities and competencies required to perform certification to the highest international standards for industries performing at that level. It has and applies equivalency authorities as illustrated in negotiations with Mexico.
 - Belize provides regular and timely notifications to OIE and stakeholders are notified of significant changes to trade requirements.

Amongst areas that required strengthening and issues to address, the most significant were to:

- Provide adequate veterinary coverage in the South where there is no dedicated veterinarian and to address growing workloads in the North.
- Provide sufficient quarantine personnel at ports of entry to meet current and growing demands by the addition of staff and/or the use of Customs personnel.
- Upgrade an aging fleet, improve equipment maintenance, and resolve the problems of a residue laboratory that is inoperable due to building.
- Increase the stable but small core budget allocation from the Government of Belize (1.1 million \$Belize per year on average from 2004 to 2008) to improve the balance with significant revenues from fees for service (2.2 million \$Belize in 2008-9). Programmes which primarily serve the public interest appear to be under-resourced due to the high dependence on fees for service.
- Address the issue of irregular practitioners² operating on a private basis in small communities who have irregular training and who are not currently overseen or sanctioned by the Veterinary Surgeon's Board.
- Take steps to consolidate meat inspection services under BAHA, and to clarify the role of the MoH with respect to meat inspection and food safety.
- Develop national disease control or eradication programmes that will be required as the livestock and agriculture industries grow in size and sophistication.
- Exercise the existing authorities to register and control the use of veterinary drugs. In particular there is a need to exert control over the sale and use of powerful antibiotics and other veterinary drugs by requiring prescriptions issued by registered veterinary surgeons. BAHA officials are consulting stakeholders on how to address the issue.
- Extend a comprehensive residue testing programme that is operating for products of aquaculture exported to the European Union; at present there is insufficient funding to apply a programme of this kind to foods for domestic markets.
- Consider how to ensure that members of the BAHA Board would not find themselves facing allegations of conflicts of interest as in cases where staff felt pressured by commercial interests on import decisions. This issue was expected to be addressed in part by proposed amendments to BAHA's legislation requiring Directors to disclose and recuse themselves from potential conflicts.
- Develop a code of conduct on potential conflicts of interest for veterinarians employed by BAHA who operate private veterinary practices.
- Improve the management of laboratories to address issues such as 1) a residue

² The term Veterinary Para-professional is defined by the OIE Terrestrial Animal Health Code for persons who are duly registered by a national Veterinary Statutory Body to perform some specified veterinary procedures under the supervision of registered veterinarians. In Belize the term "para-professionals" has long been used to refer to persons who practice elements of veterinary medicine without the required training or registration (Gongora, V. Rev. sci. tech. Off. Int. Epiz., 2003, 22 (2), 463-471). In this report the latter persons are referred to as irregular practitioners to avoid possible confusions.

testing laboratory that has been out of operation for an extended period, 2) provision of additional laboratory services to support new disease control activities that will need to be undertaken, and 3) the need for a formal laboratory quality assurance programme.

- Establish a dedicated communications unit that is needed to support the breadth of activities undertaken by BAHA.
- Develop accreditation programmes for private veterinarians or laboratories.

It should be noted that further progress has been made since the findings of the PVS evaluation, and in particular,

- An equivalency agreement has been signed between Belize and Mexico under which the national cattle herd will be tested for brucellosis and TB. If the results are satisfactory this may permit the export of live cattle to Mexico for slaughter, beginning with 10,000 head and then rising to 15,000 head annually.
- A second round of investments in the agricultural sector has been secured from IDB and a substantial portion (\$US 2.6 of 5.0 million) will be directed to agricultural and food inspection services delivered by BAHA.
- A proposal is under discussion with the EU for funding the national cattle testing project.

The personnel of BAHA and the MAF are to be commended for this progress.

III.2 Objectives of the Gap Analysis

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

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

IV. NATIONAL AND INTERNATIONAL PRIORITIES AND EXPECTED LEVELS OF ADVANCEMENT

In 2008, the Agricultural Sector contribution to the national Gross Domestic Product (GDP) was \$B 228.8M (\$US 114M) or 8.4% of GDP at current prices. In constant prices, livestock farming accounted for 15.7% of this agricultural GDP (\$US 18M) in 2008, up from 13.5% in 2000.

Prospects for exports to Mexico of up to 10-15,000 live cattle annually for slaughter would add significantly to this livestock GDP. At an estimated price of \$US 500 per head, the sale of 10,000 cattle would add \$US 5M to the livestock farming GDP, an increase of 28% from constant prices in 2008.

GDP (\$B M)³	2000	2008
current prices		
overall	1664.1	2717.4
agriculture	181.6	228.8
livestock farming	24.6	41.7
constant prices		
overall	1664.1	2377.7
agriculture	181.6	232.1
livestock	24.6	36.5

The Belize currency (\$B) is pegged at \$B 2.00 for \$US 1.00. For the balance of this report budget numbers are provided in \$US to facilitate international comparisons.

³ Figures in document “Gross Domestic Product 2000-2008” (6 pp) provided by Ministry of Agriculture

IV.1 National priorities

Table 1 Identification of National Priorities

Category of priorities	National priorities	Explanatory comments (importance for the country)
A. Policy on organisational structure and management of the Veterinary Services	<p>VS1: Pass and implement Belize Biosecurity Bills and regulations on Accreditation, TB, Animal ID, and BSE</p> <p>VS2: Build private and/or public capacity to deliver non-official veterinary services</p> <p>VS3: Develop new units in BAHA (i.e. legal, communications, traceability, audit) and strengthen human resource capacity (e.g. recruitment and continuing education)</p>	
B. Policy on livestock development	<p>LD1: Implement Export Agreement and associated Protocol of Live Cattle for slaughter to Mexico; develop similar protocols for goats to Jamaica, sheep to Mexico, cattle to Guatemala, processed meat products (beef & poultry) to Mexico and Jamaica</p> <p>LD2: Improve production and promote diversification (other species) through improved genetics and feed management, and sustainable production systems</p> <p>LD3: Strengthen livestock producer organisations</p>	An important opportunity for significant growth in the livestock sector
C. Technical priorities in animal health	<p>AH0: Reducing the risk of animal diseases spreading to other countries</p> <p>AH1: Strengthen existing programmes (surveillance, aquatic health, quarantine inspection, laboratory services) to support livestock development objectives.</p> <p>AH2: Prevention and control of exotic diseases such as CSF, AI, END, FMD, BSE etc.</p>	Commitment of all OIE Members
D. Technical priorities in veterinary public health	<p>VPH1: Strengthen collaboration between BAHA and MoH on meat inspection both slaughter and processing</p> <p>VPH2: Strengthen control of veterinary drugs and monitoring of veterinary drug residues in foods</p> <p>VPH3: Prevention and control of zoonoses, such as rabies, TB, and brucellosis</p>	important for public health as well as access to markets

IV.2 Choice of the level of advancement

Table 2 Levels of advancement

Critical competencies	Level of advancement		National priorities				Comments
	current	expected	Organisational structure of VS	Livestock development	Animal health	Veterinary public health	
Chapter 1. Human, physical and financial resources							
I-1. Professional and technical staffing							
I.1.A. Veterinarians and other professionals	4	4	all	all	all	all	Increases are needed for field operations and at HQ; recommend a review of border control strategies to maximize efficiency of the required investment
I.1.B. Veterinary para-professionals and technical staff	4	4	all	all	all	all	as above
I.2. Competencies of veterinarians and veterinary paraprofessionals							
I.2.A. Veterinarians and other professionals	3	4	all	all	all	all	
I.2.B. Veterinary para-professionals and technical staff	4	4	all	all	all	all	
I-3. Continuing education	2	4	all	all	all	all	Develop and fund an ongoing programme
I-4. Technical independence	3	3		all	all	all	Develop/apply a code of conduct to prevent conflict of interest
I-5. Stability of structures and sustainability of policies	4	4		all	all	all	Develop TB and brucellosis and compensation policies
I-6. Coordination capability of sectors and institutions	3	3	all	all	all	all	Strengthen collaboration between BAHA and MoH on meat inspection at municipal level
I-7. Physical resources	3	4	all	all	all	all	
I-8. Funding	3	4	all	all	all	all	Need to increase government of Belize allocation to BAHA
I-9. Contingency and compensatory funding	2	3					Develop polices and systems
I-10. Capacity to invest and develop	3	4	all	all	all	all	Build capacity to demonstrate return on investment

Chapter 2. Technical authority and capability							
II-1 Veterinary laboratory diagnosis	4	4					Consider consolidation of small labs and guidelines for decisions on whether to do the work in-house or through arrangements with outside laboratories
II-2 Laboratory quality assurance Quality of services provided by laboratories	2	3					Recruit/train QA officer, develop SOPs, train staff and implement systems
II-3 Risk analysis	3	3		all	all	all	
II-4 Quarantine and border security	3	4					Hire new personnel for existing and new ports of entry; review procedures for efficiency; build /strengthen required infrastructure
II-5 Epidemiological surveillance.							
A. Passive epidemiological surveillance	3	4					
B. Active epidemiological surveillance	2	4					Test national cattle herd for brucellosis and TB; active surveillance on priority diseases to support export goals
II-6 Early detection and emergency response	4	4					Adopt incident command structure and conduct simulation exercises
II-7 Disease prevention, control and eradication	2	3					Develop control or eradication programmes for priority diseases
II-8 Veterinary public health and food safety	3	3					Collaboration with MoH on slaughter inspection
II-9 Veterinary medicines and veterinary biologicals	2	4			NA		Strengthen control of the sale, distribution and use of veterinary drugs
II-10 Residue testing	2	4			NA		Develop sampling and testing capacity
II-11 Emerging issues	3	3					Develop awareness and codes of practice on animal welfare and environmental issues
II-12 Technical innovation	2	2					
Chapter 3. Interaction with stakeholders							
III-1 Communications	2	4					Recruit a communications officer; develop communication networks and materials
III-2 Consultation with stakeholders	4	5					Further strengthen stakeholder partnerships
III-3 Official representation	3	3		all	all	all	Engage stakeholders; reflect national views in multilateral meetings
III-4 Accreditation/authorisation/delegation	1	3					Long term target is level 5 so introduce audits during 1 st 5 years
III-5 Veterinary Statutory Body	3	4		all	all	all	Address illegal practice of veterinary medicine
III-6 Participation of other producers and other stakeholders in joint programmes	4	4	all	all	all	all	Engage stakeholders in the design and delivery of veterinary statutory programmes

Chapter 4. Access to markets							
IV-1 Preparation of legislation and regulations, and implementation of regulations	3	5					Strengthen capacity to implement legislation and regulations with stakeholder participation
IV-2 Stakeholder compliance with legislation and recommendations	2	4					Strengthen compliance and enforcement capacity with stakeholder support
IV-3 International harmonisation	4	5					Maintain current activities
IV-4 International certification	3	3	All		all	all	Maintain compliance with international standards with an expanded export trade
IV-5 Equivalence and other types of sanitary agreements	3	4	All	,	all	all	Expand development and use of equivalency agreements
IV-6 Traceability	2	4	All		all		Complete design and implement proposed traceability system
IV-7 Transparency	4	4					Maintain compliance with notification standards and procedures
IV-8 Zoning	2	3					Prepare for possible zoning if needed for brucellosis and TB
IV-9 Compartmentalisation	2	4					Establish the feasibility of aquaculture compartments

IV.3 Impact and significance of the programme

The significant investments proposed in this report will protect first and foremost the health and food safety and security of the population of Belize. It will also support economic development of the agricultural and rural economies and provide a safe food and environmental context required for the growth of tourism.

It has been reported that 60% of all human pathogens originate from animals, and 75% of emerging diseases are zoonotic. It is therefore imperative that the Belize VS is strengthened for the protection of both animal and human health. Food safety is not only important for Belize nationals but as a safeguard to the important tourism sector.

Prospects for exports to Mexico of up to 10-15,000 live cattle annually for slaughter would add significantly to livestock GDP which contributes to rural economic development. At an estimated price of \$US 500 per head, the sale of 10,000 cattle would add \$US 5M to the livestock farming GDP, an increase of 28% from constant prices in 2008.

V. GENERAL STRATEGY OF THE PVS GAP ANALYSIS PLAN

With a total area of 22, 966 sq km, Belize is located in Central America bordering the Caribbean Sea, between Guatemala to the West and Mexico to the North.

The population density of Belize is low with about 308,000 people (July 2009), but the population growth rate is relatively high for the region at about 2.2% (2009 est.)⁴

Belize is a member of the Commonwealth but also an active member in regional organisations. The official language is English, but Spanish is commonly spoken.

The commercial livestock sector consists of moderately large farms and processing units for poultry, beef, dairy and pig production as well as a sophisticated aquaculture sector with markets in the USA and the EU. Commercial production is relatively well organised, production figures are well documented and BAHA focuses most of its services on meeting the needs of this sector.

The contribution of this sector to national GDP could grow significantly in the coming years if Belize succeeds with its plans to export livestock and livestock products to other countries of Central America and the Caribbean. These plans had a significant influence on the national priorities identified by the Veterinary Services in the areas (see Section IV.1).

Public health was the other significant driver of national priorities, with a focus on improving the control of veterinary drugs, improved food safety (e.g. monitoring foods of animal origin for drug and chemical residues) as well as improved control of zoonoses such as rabies, brucellosis and tuberculosis.

The desired results in terms of advancement to address the national priorities can be clustered into several strategic actions:

- The Belize Agricultural Health Authority needs more stable core funding if it is to realize sustainable results from the important but fixed-term investment (\$US 2.6 million over 5 years) that it will be receiving as part of an IDB loan to the Government of Belize. A more stable and sustainable financial regime is needed to reduce BAHA's unusually high reliance on user fees that currently account for 2/3 of its budget. This high dependence on fees for service limits the capacity of BAHA to fund work in the public interest that does not produce revenues and risks bringing into question the independence of decisions taken by an agency that is largely funded by the regulated community. This funding review should also take into consideration that some of the services that BAHA must provide, for example the provision of border inspections at new ports of entry (item #3 below), are driven by national agendas other than agriculture or food production, for example the promotion of tourism and regional economic development. This funding problem needs to be addressed in the next year or so if sustainable benefits are to be drawn from the IDB investments.
- Actions are required to enforce existing laws and regulations, to improve the control of the use and quality of veterinary drugs and to reduce the illegal practice of veterinary medicine by non-qualified persons. These inter-woven problems threaten human health as well as plans for development of the livestock sector. Strategies will be required to overcome resistance to change from those with vested interests. As some of these traditional practices have deep social, economic

⁴ From Wikipedia accessed 26/04/2009 at <http://en.wikipedia.org/wiki/Belize>

and cultural roots dating back great many years, a plan is needed to introduce changes gradually in a manner that will be accepted by the communities concerned. One such approach will be to offer training as basis to improve the practise and eventually to certify and register the current “irregular” veterinary practitioners.

- There is also a need to move forward with proposed improvements to the existing laws and regulations that govern the animal health and food safety activities of BAHA in areas such as ante- and post-mortem inspection at abattoirs, authority to accredit private veterinarians and laboratories for regulatory work, livestock identification and traceability, and requirements for specific disease control programmes such as bovine tuberculosis.
- Strategies are needed to optimize the efficiency and effectiveness of two high cost and essential functions performed by BAHA. There is some urgency to this work as the results should guide significant investment planned with funds from the IDB.
 - a. Before investing further in its two small laboratories that support food safety and animal health programmes, BAHA should develop principles and strategies to guide its decisions on which analyses should be performed by its own laboratories and which could be more efficiently performed by others, including laboratories outside of the country, while still meeting programme requirements. These questions should be asked in concert with an exploration of a possible consolidation of its existing laboratories at a single location in order to realize economies and synergies in areas such as quality control, laboratory management and overhead costs (maintenance) as well as the sharing of analytical expertise.
 - b. Border operations of BAHA’s quarantine service carry a heavy responsibility on behalf of the national animal health, plant health and food safety programmes. An analysis of staffing requirements of the current border inspection programme confirmed the view of managers that they have too few personnel for the six existing border points (30 staff now; 50 required), let alone for four new ports of entry that will open in the near future, requiring a further 20 staff. Before an investment of this scale is made it would be wise to review the design of the border inspection programme, taking account of international best practices and innovations, to seek efficiencies, for example through a focus on high risk pathways and commodities, increased partnerships with Customs or other agencies, reductions in hours and locations of service, and/or increased fees.

VI. STRENGTHENING THE ORGANISATIONAL STRUCTURE OF THE VETERINARY SERVICE

BAHA has an appropriate organisation for the Veterinary Authority that simply needs some strengthening to improve its coverage in the field and in particular at ports of entry, and to strengthen some central capacity for communications, investigation & enforcement, epidemiology, quality control and audit/evaluation services. Limited core funding is the major constraint here, with the monies allocated to BAHA from the Government of Belize accounting for only 1/3 of the annual budget of \$US 1.75 million. There is a strong case to be made for an increase of this core funding.

A more challenging area is the intertwined issues of the illegal practice of veterinary medicine and the lack of control over the distribution and sale of powerful drugs that should be controlled through a system of prescriptions from licensed Veterinarians or by registered Veterinary para-professionals under conditions authorized by the Veterinary Statutory Body. These issues are addressed in Section IX.

VI.1 Leadership and coordination of the Veterinary Services

VI.1.A *Central leadership and chain of command*

Limited core funding threatens to prevent the Belize Agricultural Health Authority from realizing sustainable results from the important but fixed-term investment (\$US 2.6 million over 5 years) that it will be receiving as part of an IDB loan to the Government of Belize. A more stable and sustainable financial regime is needed to reduce BAHA's unusually high reliance on user fees that currently account for 2/3 of its budget (for similar agencies in Canada and the USA fees are estimated to provide <10% and approx 33% of the budget, respectively. This high dependence on fees for service limits the capacity of BAHA to fund work in the public interest that does not produce revenues and risks bringing into question the independence of decisions taken by an agency that is largely funded by the regulated community.

This funding problem needs to be addressed in the next year or so if sustainable benefits are to be drawn from the IDB investment. Hence formal funding review is proposed in year one, to draw upon national and international policy experts who would explore the best international practices and take account of the socio-economic circumstances in Belize. This review should also take into consideration that some of the services that BAHA must provide, for example the provision of border inspections at new ports of entry (item #3 below), are driven by national agendas other than agriculture or food production, for example the promotion of tourism and regional economic development.

VI.1.B *Strengthening capacity for national coordination of the VS*

The Veterinary Service needs strengthening by creating the following specialized units:

Communication unit

This unit should be headed by a professional trained in communications and media work and supported by one support staff member.

Epidemiology, risk assessment and emergency response unit

This unit would be overseen by a veterinary epidemiologist supported by two veterinary para-professionals and one support staff member to collect and process

surveillance and disease occurrence data, to conduct investigations and to provide information and policy advice to the Director of the Animal Health department as required. The unit will be responsible for gathering all the notifiable animal disease control and livestock data from the field. The unit will be able to map disease outbreaks and indicate disease trends. It will be responsible for preparing risk assessments, providing policy advice to the Director and compiling reports for regional and international organisations such as the OIE. It would also plan and manage emergency response simulation exercises with the support of an additional professional, a veterinary para-professional and one support staff member.

Depending upon the results of the national herd test, an additional veterinarian may be required if foci of brucellosis and/or TB are uncovered that require extended disease control or eradication efforts.

Audit and Evaluation unit

This unit could serve all BAHA Departments to promote efficient and effective practices, including audit and evaluation of programmes. It should be headed by a professional trained in audit and evaluation and supported by one support staff member.

Quality Control unit

This unit could serve all BAHA Departments with quality control services. It should be headed by a professional trained in ISO or equivalent quality management methods and supported by one support staff member.

Investigation and Enforcement unit

This unit could serve all BAHA Departments to ensure stakeholder compliance with legislation. It would work in concert with the Customs Service, Police and other enforcement bodies, and should be headed by a professional trained in investigation and enforcement methods and supported by one support staff member.

Legal and regulatory affairs unit

This unit could serve all BAHA Departments to assist in the development and application of laws and regulations. It should be headed by a legal professional supported by one support staff member (a legal secretary).

VI. 2 Human resources required to strengthen the VS

Veterinarians

There is need to employ 3 additional veterinarians including those mentioned above to support the expanded requirements for disease surveillance, control and export certification.

In order to assist in the provision of statutory veterinary services, regulations should be promulgated that will enable private practitioners to be accredited and authorised to carry out specific functions required by the BAHA VS. Such a mechanism will facilitate the utilisation of the skills of the private sector while the numbers of state employed veterinarians is increasing. This issue is addressed in more detail in Section IX.

Post graduate training for some veterinarians should be encouraged in fields such as epidemiology and public health that will support programmes of the Veterinary Services.

A programme of continuing education should continue to address management and leadership skills in addition to technical training.

Other professionals

Professionals in a number of disciplines will be needed for the enhanced coordination roles (see VI.1 above).

A significant number of professionals will be required to supervise the work at current and new ports of entry (see Section X).

Veterinary para-professionals and other technical personnel

Additional technical and veterinary para-professional staff are required for the enhanced coordination roles described in VI.1 and also for the increased operational work on disease surveillance, meat inspection, other aspects of food safety, control of veterinary drugs and residues, border control, aquaculture and laboratories as described in Sections VII, VIII, IX, X and XI.

VI.3 Physical resources required to strengthen the VS

Buildings will need to be renovated and expanded to accommodate increased laboratory capacity. These costs are addressed in Section XI.

Building renovations or construction may also be needed at some ports of entry where inspection facilities are not provided by others such as Customs or a port authority. These costs are addressed in Section X.

VI.4 Budget

Human resources:

Staff required for the new headquarters and coordination roles would increase from the current 29 to 53 by year 2 (83%). This is a smaller increase than the proposed overall personnel growth from 85 to 178 staff (109%).

Investments for continuing education were calculated based on an average of 2 weeks of training per employee annually. This would require a budget of \$US 100,000 in year 1, rising to \$US 133,000 by year 3.

Physical resources:

Additional office space, IT and telecommunications investments and vehicles will be required to support the proposed new coordination units.

Table 3 Budget

	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
I-1. Composition of science and technical staff. A. Professional and technical staffing of the VS	259,200	324,000	324,000	324,000	324,000	0
I-1. Composition of science and technical staff. B. Veterinary para-professionals and other technical personnel	380,400	452,400	452,400	452,400	452,400	0
I.2. Competencies of veterinarians and veterinary para-professionals A. Veterinarians and other professionals	7,800	3,900	3,900	3,900	3,900	240,000
I.2. Competencies of veterinarians and veterinary para-professionals B. Veterinary para-professionals and technical personnel	0	0	0	0	0	0
I-3. Continuing education	99,684	121,836	132,912	132,912	132,912	0
I-4. Technical independence	0	0	0	0	0	33,075
I-5. Stability of structures and sustainability of policies	0	0	0	0	0	0
I-6. Coordination capability of the sectors and institutions of the VS	0	0	0	0	0	0
I-7. Physical resources	145,529	143,422	180,359	180,359	180,359	325,561
I-8. Funding	0	0	0	0	0	19,505
I-9. Contingency and compensatory funding	10,050	3,350	3,350	3,350	3,350	10,770
I-10. Capability to invest and develop	3,350	1,675	1,675	1,675	1,675	0
Total in LC	906,013	1,050,583	1,098,596	1,098,596	1,098,596	628,911
Total in USD	906,013	1,050,583	1,098,596	1,098,596	1,098,596	628,911
Total in EUR	671,120	778,210	813,775	813,775	813,775	465,860
	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
Material investments: Technical equipments	0	0	0	0	0	0
Material investments: Office IT and communications	31,500	49,250	56,000	56,000	56,000	98,000
Material investments: Transports	24,000	36,000	48,000	48,000	48,000	120,000
Material investments: Buildings	4,594	6,970	8,089	8,089	8,089	104,861
Material investments: Software and information system						0
Non-material investments: Expertise	0	0	0	0	0	35,010
Non-material investments: Qualifying education	0	0	0	0	0	240,000
Total staff expenses	533,000	647,000	647,000	647,000	647,000	
Continuing education	99,684	121,836	132,912	132,912	132,912	27,690
Transport and travels expenses	41,935	55,103	72,170	72,170	72,170	
Specific consumables	0	0	0	0	0	0
Delegated activities	51,300	0	0	0	0	
Exceptional funds	0	0	0	0	0	0
Other operating expenses	120,000	134,425	134,425	134,425	134,425	3,350
Total in USD	906,013	1,050,583	1,098,596	1,098,596	1,098,596	628,911
Total in EUR	671,120	778,210	813,775	813,775	813,775	465,860

VII. STRENGTHENING COMPETENCIES FOR ANIMAL HEALTH

The plan to develop export markets for livestock and livestock products will require targeted investments in animal disease surveillance, systems for early detection of serious diseases and for rapid control or eradication actions if such diseases are found. For efficient animal disease prevention, detection, control and eradication, BAHA must have sufficient human, financial and material resources and the support of stakeholders.

VII.1 Action strategy in the field of animal health

The main steps needed to support the national priorities in animal health are to:

Strengthen surveillance

A national herd test for bovine TB and brucellosis is planned for 2010 in collaboration with Mexico and with support requested from the EU. This would need to be followed by active surveillance for these diseases and for BSE across the cattle population. Active surveillance for other animal diseases (AI, ND, CSF, FMD, scrapie and aquaculture diseases) is also planned. A poultry improvement programme covering salmonellosis and mycoplasmosis (for commercial breeder flocks) is also under development and there are plans to design an active hive surveillance programme for bee diseases.

Passive surveillance will continue for rabies, vesicular diseases (also some active), BSE (also some active), scrapie, TB (at slaughterhouse) and through export testing for bovine TB & brucellosis.

Develop disease control/eradication policies and procedures

Priorities are being established to support economic development and export goals. An early step is to establish the prevalence of bovine brucellosis and TB through the national herd test, and then to undertake any control or eradication measures that may be required to gain disease-free status in support of the export objective (LD1). Should control action be needed there will be a requirement for clear policies and written standard operating procedures for:

- Follow up testing of suspected herds, herd quarantine and culling of animals based on serological reactions and/or culture in accordance with recommendations of the OIE Code (Chapter 11.7 for Bovine TB and 11.3 for Brucellosis)
- Enhanced diagnostic testing (serology and bacteriology)
- Possible herd depopulation (depending on herd size and prevalence).
- Establishment of movement controls points at up to four strategic locations
- Compensation for animals ordered slaughtered (see I.9)

Other disease control measures will be established as required (e.g. a VEE vaccination programme). VEE vaccination would be conducted as required under a programme of owner education and vaccination by private vets, supplemented by emergency vaccination in the face of outbreaks with funds from the Government of Belize and/or international donors.

For all the diseases identified in the section on national priorities, detailed animal disease control or emergency response programmes should be developed covering epidemiological surveillance; sample collection and submission; disease reporting; emergency response; control measures; etc.

Strengthen emergency response capacity

The development of export markets will increase the importance of maintaining an effective early detection and rapid response plan for exotic diseases that could disrupt trade. Foot and Mouth disease is an example of one of the more critical issues, while bovine brucellosis & TB will also be important in the case of exports to Mexico and other countries.

The emergency response plans and procedures, including those for funding decisions, should be rehearsed regularly through simulation exercises. In the event of an outbreak of a priority disease, an incident command system should be established that would include other applicable ministries, such as NEMO that would work with BAHA.

Increase involvement of the private sector

Private sector veterinarians could be used to assist and extend the reach and efficiency of the public sector in the delivery of vaccination campaigns, emergency measures, meat inspection and other statutory services under appropriate accreditation programmes. A start will be made with the use of accredited veterinarians, including some from Mexico for the first complete test of the national cattle herd for brucellosis and TB.

VII.2 Physical, human and financial resources in the field of animal health

Strengthening of human, financial and physical resources will be required to support key elements of the plan to strengthen the VS set out above in VII.1 and detailed in the Appendix 1 Critical Competency Cards (pages 83-92).

For the initial test of the national cattle herd, \$US 433,000 is allocated in year 1 for accredited veterinarians (12 from Mexico and 6 from Belize) over 38 weeks. This would include transportation for the Mexican veterinarians. An additional \$US 344,000 is allocated for consumables. Funds are also allocated for training of BAHA staff and the newly accredited veterinarians in year 1.

Staff requirements are for an additional 2 veterinarians and 2 veterinary para-professionals to conduct export testing on an ongoing basis, as well as to assist with any disease control or eradication efforts that may be required. An additional seven veterinary para-professionals plus 1 support staff would be required for movement controls at 4 strategic points.

Four 4x4 vehicles (plus fuel) are required for the cattle herd test plus another 4 for export testing and 2 for movement control operations.

Consumables required for surveillance are testing supplies for BSE, AI, and CSF plus sample shipping costs for FMD testing (estimated \$US 8600 in year 1 rising to 31,000 by year 5). All testing methods should be selected in accordance with the OIE code..

National amounts were budgeted for compensation in the event that some pockets of brucellosis or TB are encountered. The amounts are modest at \$US 56,000 in year 1 and then declining to \$US 5,000 year five. These figures will need to be adjusted once results from the national herd tests are available.

For emergency preparedness simulation exercises a budget was provided each year for a one week session with BAHA personnel including 2 days of stakeholder participation. Funds are provided for a stockpile of essential consumables (disinfectants, protective clothing, etc), estimating \$US 20,000 to establish the stockpile in year one plus \$US 5,000 annually for additions and replacement materials.

VII.3 Budget

Funds are allocated for an international consultant (4 weeks) to assist with the development of policies and procedures for brucellosis and TB control or eradication. This is supplemented with funds for 4 days of stakeholder consultation in year 1 and 2 days of consultations annually thereafter.

For emergency management, funds are provided for an international expert for a 1 week visit each year to advise on and participate in a simulation for a different disease each year, thereby developing a stock of scenarios and policies specific to the 5 most significant disease risks. Funds are also earmarked for training of the new emergency management officer (see section I.1) in the use of an Incident Command System during years 1 and 2 (\$US 5000).

To design a surveillance programme to establish freedom at country level for fish diseases (white spot, Taura syndrome and Yellow Head), funding is allocated for an international consultant for one week to assist and for discussions with industry to design an approach and to negotiate shared funding.

Building construction is required to support system of movement controls (estimate of \$US 88,000) and for surveillance work (est 105 sqm).

Table 4 Budget

	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
II-5. Epidemiological surveillance A. Passive	178,668	313,586	313,586	321,086	321,086	184,764
II-5. Epidemiological surveillance B. Active	8,600	23,600	23,600	31,100	31,100	6,035
II-6. Early detection and emergency response	6,119	11,119	11,119	11,119	11,119	43,025
II-7. Disease prevention, control and eradication	916,730	96,410	86,410	71,410	71,410	107,382
Total in LC	1,110,116	444,716	434,716	434,716	434,716	341,206
Total in USD	1,110,116	444,716	434,716	434,716	434,716	341,206
Total in EUR	822,308	329,419	322,011	322,011	322,011	252,745

	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
Material investments: Technical equipments	0	0	0	0	0	0
Material investments: Office IT and communications	0	7,875	7,875	7,875	7,875	31,500
Material investments: Transports	36,000	60,000	60,000	60,000	60,000	120,000
Material investments: Buildings	0	4,034	4,034	4,034	4,034	121,018
Material investments: Software and information system						0
Non-material investments: Expertise	0	0	0	0	0	26,850
Non-material investments: Qualifying education	0	0	0	0	0	9,600
Total staff expenses	120,500	164,500	164,500	164,500	164,500	
Continuing education	6,119	6,119	6,119	6,119	6,119	8,888
Transport and travels expenses	68,270	85,338	85,338	85,338	85,338	
Specific consumables	357,227	48,600	48,600	63,600	63,600	20,000
Delegated activities	433,200	0	0	0	0	
Exceptional funds	56,000	20,000	10,000	5,000	5,000	0

Other operating expenses	32,800	48,250	48,250	38,250	38,250	3,350
Total in LC	1,110,116	444,716	434,716	434,716	434,716	341,206
Total in USD	1,110,116	444,716	434,716	434,716	434,716	341,206
Total in EUR	822,308	329,419	322,011	322,011	322,011	252,745

VIII. STRENGTHENING COMPETENCIES FOR VETERINARY PUBLIC HEALTH (FOOD SAFETY AND ZOOSES)

Food safety and zoonotic disease control are important core functions of the VS as they have a direct impact on human health.

VIII.1 Action strategy in the food safety field

In order to maintain level 3, additional resources are required for inspection of slaughterhouses, dairy and fish plants and high seas fishing vessels.

In support of livestock export objectives it will be necessary to extend disease surveillance to municipal slaughter plants by collaborating with MoH to establish veterinary ante- and post-mortem inspection at these locations that are currently inspected by public health officers who are not veterinarians.

1) Strengthening the meat, fish and dairy inspection services

An increase of veterinary para-professional staff from the current 6 to 13 is required to provide sufficient inspection coverage for inspection at:

- slaughterhouses (increase from 6 to 10 inspectors)
- small municipal slaughter points to collect surveillance information (hire 3 additional inspectors in year 2)
- four aquaculture fishery products establishments (one visit quarterly) plus one veterinarian one day per plant per year
- two wild fishery product establishments (once per year)
- new fishery establishment to be opened where more extensive inspection is required to establish HACCP and perform follow up inspections.
- seven high seas fishing vessels –this requires a dedicated unit consisting of one other professional (or a highly qualified HACCP technician) plus one technician to review and verify HACCP systems (5 working days needed per vessel plus travel time)
- one dairy farm (Western) a half day once a month

To ensure adequate authority for slaughter inspection at municipal abattoirs it would be important to pass the BAHA Biosecurity Bill (with 3 parts: animal health, plant health and food safety)

Consultations with stakeholders should be launched to encourage the adoption of on-farm food safety practices (e.g. quality assurance methods to avoid drug residues), supported by communications to stakeholders and the public to promote food safety.

2) Residue testing of meat

The extend of residue testing capacity from fish to other food commodities of animal origin will require development of sampling plans as well as sample collection protocols and capacity.

A plan to secure the required laboratory testing for residues in food is required, and should take into consideration the investments already made by BAHA's CIL, possible partnerships with an existing pesticides lab and opportunities to collaborate with any regional programmes. The issue of laboratory capacity is explored further in Section XI where a study is proposed to weigh the costs, benefits and other issues that need to be

considered in order to find the optimum balance between in house testing and the purchase of testing services from 3rd parties abroad.

Results of the residue testing programme should be communicated to both stakeholders and the public to promote actions that may be required to address problems that may be detected. This work should be coordinated with activities to improve the control of veterinary drugs and the practice of veterinary medicine (see Section IX).

3) Improved detection and control of zoonotic diseases

Actions are proposed under sections VI, VII and XI to strengthen surveillance and control for zoonotic diseases including brucellosis, TB, rabies and VEE.

VIII.2 Physical and human resources in the food safety field

Increased salary funds are allocated for an increase of veterinary para-professional staff from 6 to 13, (increasing to 10 techs from 6 for slaughter plants currently inspected by BAHA plus 3 new inspectors for the plants currently inspected by MoH; 1 north, 2 south) and for an additional other professional for high-seas fisheries inspection.

The fleet is increased by 2 vehicles (regular trucks) for coverage of new facilities (e.g. municipal plants) and to support sample collection for residue testing.

Funds are allocated for specialized and continuing education to

- train public health inspectors to meet BAHA requirements for disease surveillance,
- training new BAHA veterinary para-professional staff and upgrade training for existing staff (twice a year for meat, aquaculture and bees)
- specialized training abroad, specifically a sanitation course in Japan (staff time only as other costs currently paid by Japan)
- specialized training for a new unit dedicated to the inspection of high seas fishing vessels plus training (10,000US\$ - 0.2 units).

Funds are allocated for stakeholder consultations (6 days per year) regarding on-farm food safety procedures and the residue sampling/testing programme and subsequent prevention actions that may be required.

Communications investments in years 2, 3 and 4 reflect a plan for stakeholder and public education proposed under the IDB project.

Develop residue sampling and testing strategies and procedures – international consultant 2 weeks plus local counterpart (10 days).

Laboratory costs for residue testing (see chapter XI):

- Hire more staff for the laboratory
- Training of lab personnel - US\$ 10000 for specialized testing
- Acquire technical equipment, lab supplies and space

Table 5 Budget

	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
II-8. Veterinary public health and food safety	338161.2	415175.28	431175.28	419175.28	407175.28	128,152
II-10. Residue testing	0	0	0	0	0	27,270
Total in LC	338,161	415,175	431,175	419,175	407,175	155,422
Total in USD	338,161	415,175	431,175	419,175	407,175	155,422
Total in EUR	250,490	307,537	319,389	310,500	301,611	115,127

	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
Material investments: Technical equipments	0	0	0	0	0	0
Material investments: Office IT and communications	0	10,000	13,000	13,000	13,000	52,000
Material investments: Transports	15,000	21,000	21,000	21,000	21,000	30,000
Material investments: Buildings	0	0	0	0	0	0
Material investments: Software and information system						0
Non-material investments: Expertise	0	0	0	0	0	8,070
Non-material investments: Qualifying education	0	0	0	0	0	43,200
Total staff expenses	230,000	263,000	263,000	263,000	263,000	
Continuing education	11,076	11,076	11,076	11,076	11,076	22,152
Transport and travels expenses	26,035	36,449	36,449	36,449	36,449	
Specific consumables	0	0	0	0	0	0
Delegated activities	0	0	0	0	0	
Exceptional funds	0	0	0	0	0	0
Other operating expenses	56,050	73,650	86,650	74,650	62,650	0
Total in LC	338,161	415,175	431,175	419,175	407,175	155,422
Total in USD	338,161	415,175	431,175	419,175	407,175	155,422
Total in EUR	250,490	307,537	319,389	310,500	301,611	115,127

IX. STRENGTHENING THE MANAGEMENT OF VETERINARY DRUGS AND THE PRACTICE OF VETERINARY MEDICINE

The purpose of this section is to explain the proposed activities in the management of veterinary drugs and the practice of veterinary medicine. These two topics are grouped together because of the major interactions between them.

IX.1 Action strategy for the management of veterinary drugs and the practice of veterinary medicine

The main needs identified in relation to national priorities are to improve compliance with the national laws and international standards for the control of veterinary drugs and the practice of veterinary medicine. A sudden change from current practices would create a major disruption of livelihoods for many persons currently involved in the “irregular” (ie illegal) practice of veterinary medicine including the distribution of veterinary drugs, and perhaps more problematic would be a disruption in the availability of drugs and veterinary care to livestock and pet owners. The proposed approach is therefore one of phased-in enforcement in parallel with a programme of education that would provide a basis for “irregular” practitioners and drug distributors to obtain limited licences for selected activities that would increasingly fall under professional veterinary supervision.

This programme would include the following steps:

IX.1.A Enforcement of legislation on veterinary practice and veterinary drugs

Develop and implement a strategy to enforce the Veterinary Surgeons Act to eliminate illegal practice of veterinary medicine, and build continuing education capacity for the VSB. Actions required are to:

- Seek legal advice on the Veterinary Act to determine who is responsible and has the required authority for enforcement
- Develop a strategy to bring irregular practitioners (approximately 30) under professional veterinary control
- Define what functions a veterinary para-professional can carry out, after being registered with the Veterinary Surgeon’s Board of Belize. .
- Develop a training programme (in collaboration with local training institution) for irregular practitioners to qualify for registration as veterinary para-professionals, and
- Develop a continuing education programme starting with a newsletter and invited speakers/conferences and evolving over time to a more formal programme with requirements for participation

Develop and implement a strategy to promote compliance with and to enforce regulations to improve control and distribution of veterinary drugs down to the retail and user levels, and to improve the quality of veterinary drugs themselves. Actions required are to:

- Inspect retail drug distributors by a newly hired veterinary para-professional under veterinary supervision (one technician travelling for 20000 km per year)

- Create lists of vet drugs (prescription, over counter, restricted)
- Take enforcement action in concert with actions proposed under Section XII (competency IV.2) regarding a new investigation/enforcement unit)
- Improve quality control for the most used drugs (IVOMEC, Anabolics), using external consultants to review the laws and regulations and to advise on systems and advise testing strategies that could be used for drugs and biologics

IX.1.B Improved public awareness

Action is required to improve public and stakeholder awareness to the risks of misuse of drugs and the negative implications that this may have on human health. Consumers should know to demand food derived from animals purchased from reliable sources which have codes of good farming practice which ensures the correct use of veterinary drugs.

Studies should be undertaken to establish the presence or not of drug residues in animal products, and these results made known to the public (see Section VIII).

IX.1.C Improved compliance with veterinary ethics and public service code of professional conduct.

There is a need to develop a code and guidelines to guide BAHA staff, senior officials and Directors (Board members) on how to avoid possible real or perceived conflicts of interest. Implementation of the Code should be supported by a training programme on public service ethics and methods to avoid or address conflicts of interest. This is particularly important in the BAHA context where suspicions of undue industry influence over public decisions could be fueled by the fact that 2/3 of the funding for BAHA comes from fees that it charges to the regulated sector.

IX.1.D Contracting work to private practitioners

As and when required, BAHA should contract out work to private practitioners. The type of work to be contracted out (vaccination campaigns, disease surveillance, investigations and control, laboratory testing, etc) should be determined by BAHA based on the epidemiological situation (disease hot spots), and on socio-economic considerations e.g. are private veterinarians willing and available to do the work. SOPs would need to be developed and provided to the private practitioners in order for them to work to the desired standard. Regulations to support this activity have been drafted and should be promulgated (See Section XII, critical competency IV.1).

IX.2 Physical and human resources for the management of veterinary drugs and the practice of veterinary medicine

Funds are budgeted to:

- Develop a strategy to bring irregular practitioners (approximately 30) under veterinary control and to define what functions a veterinary para-professional can carry out - local expertise to be considered and budgeted (10 days consultancy plus further 10 days, in coordination with work to improve the control of veterinary drugs control see Section VIII, critical competency CC II.9).
- Develop a training programme (in collaboration with the VSB and a local training institution) to prepare irregular practitioners to qualify for licensing as veterinary para-professionals. Estimate 30 trainees at 8 days each in year 3, plus 12 days in year 4, and 16 days in year 5.

- Inspect retail drug distributors by a newly hired veterinary para-professional under veterinary supervision (one technician and travel approx. 20000 km per year).
- Provide stakeholder and public education (consultation and compliance promotion): 6 days in year 1, 2 days ongoing for years 2-5.
- Improve quality oversight for the most critical and commonly used drugs (IVOMEK, anabolics) - hire external consultants for drugs and biologics (one week per each for biologics and drugs) to review law and advise on systems and testing strategies that could be used.
- Funds are allocated under activity II.7 (Section VII) for statutory veterinary services to be contracted out to private entities starting with \$432,000 in year one for the “sweep” test of the national cattle herd.
- To assist in development of a training programme on public service ethics and methods to avoid or address conflicts of interest consulting services are budgeted as 1 week international professional and 20 days local consultant (perhaps a local training institution).

Table 6 Budget

	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
II-9. Veterinary medicines and veterinary biologicals	13200.00	22690.44	22690.44	22690.44	22690.44	44592.00
III-4. Accreditation / Authorization / Delegation	0.00	0.00	0.00	0.00	0.00	14426.00
III-5. Veterinary Statutory Body	0.00	0.00	26800.00	40200.00	53600.00	29600.00
Total in LC	13200.00	22690.44	49490.44	62890.44	76290.44	88618.00
Total in USD	13200.00	22690.44	49490.44	62890.44	76290.44	88618.00
Total in EUR	9777.78	16807.73	36659.59	46585.51	56511.44	65642.96

	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
Material investments: Technical equipments	0	0	0	0	0	0
Material investments: Office IT and communications	0	1,125	1,125	1,125	1,125	4,500
Material investments: Transports	0	3,000	3,000	3,000	3,000	15,000
Material investments: Buildings	0	158	158	158	158	4,752
Material investments: Software and information system						0
Non-material investments: Expertise	0	0	0	0	0	26,940
Non-material investments: Qualifying education	0	0	0	0	0	9,600
Total staff expenses	11,000	11,000	11,000	11,000	11,000	
Continuing education	0	0	26,800	40,200	53,600	14,426
Transport and travels expenses	0	5,207	5,207	5,207	5,207	
Specific consumables	0	0	0	0	0	0
Delegated activities	0	0	0	0	0	
Exceptional funds	0	0	0	0	0	0
Other operating expenses	2,200	2,200	2,200	2,200	2,200	13,400
Total in LC	13,200	22,690	49,490	62,890	76,290	88,618
Total in USD	13,200	22,690	49,490	62,890	76,290	88,618
Total in EUR	9,778	16,808	36,660	46,586	56,511	65,643

X. STRENGTHENING COMPETENCIES FOR INTERNATIONAL TRADE

This section describes the proposed activities in the field of international trade development, including both imports and exports.

X.1 Action strategy in the field of international trade

The main needs identified in relation to the national objectives are:

- Review strategies and protocols for agricultural inspections at border post and points of entry to ensure that these personnel are optimally deployed to maximise efficiency and effectiveness.
- Increase the numbers of BAHA personnel to meet these requirements to protect animal and food safety at the six existing and four new ports of entry. This investment will also support work on plant health⁵ and food safety risks from foods that are not of animal origin.
- Develop capacity for priority zoning and compartmentalisation measures to support strategies and investments to develop new and maintain existing export markets.

In order to address these needs the following actions are required:

Review the requirements for BAHA personnel and resources at border posts

Using the current design and protocols for its border inspection programme, BAHA's quarantine Department would require significant investments (about 40 new staff) to fully deliver its mandate at the six existing and four new ports of entry. Before this investment is made in new inspection personnel it seems prudent to ask if this programme might be re-designed to reduce costs while maintaining or increasing its effectiveness. This recommendation is made in light of the relatively large costs that are identified to continue "business as usual" (see item 2 below for details of costs). Techniques that could be considered to reduce costs would include risk-based sampling, a focus on high risk pathways and development of institutional partnerships within the country and with neighbouring countries.

Provision of adequate BAHA personnel and resources at border posts

Discussions with BAHA officials identified a significant gap in the numbers of personnel available to staff the existing ports of entry (approx 20 FTE). A further 20 FTE would be required to staff the proposed new ports of entry to support regional development and a growing tourism sector.

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- ⁵ While work on plant health and the safety of foods not of animal origin lies outside of the OIE mandate, it is inextricably part of the work performed by BAHA's Quarantine Services so we have included these costs rather than create an arbitrary, pro-rated cost estimate for the animal health and veterinary public health portions).

Table 7a Calculation of BAHA Personnel required at Ports of Entry (FTE)

Existing ports	No days/year	No shifts/day	No. staff/shift		# staff-days per year	current	needs (FTE)
Philip Goldson airport		365	1.5	3	1642.5	5	8.2
Port of Belize Ltd		250	1	7	1750	7	8.8
Big Creek seaport		355	1	2	710	2	3.6
Punta Gorda seaport		365	1	2	730	2	3.7
Santa Elena (Mex)		365	3	2	2190	6	11.0
cargo		255	2	2	1020	4	5.1
Benque viejo (Gua)		365	2	2	1460	2	7.3
cargo		255	1	2	510	2	2.6
New ports							
Placencia airport and seaport		365	1.5	3	1642.5	0	8.2
San Pedro sea port		365	1	2	730	0	3.7
Blue Creek (land Mex)		365	1	2	730	0	3.7
Jalacte (land Gua)		365	1	2	730	0	3.7
Total						30	69.2
Existing ports						30	50.1
New ports						0	19.2

Establishment of disease free zones and compartments

Zoning

At present there are no disease free zones or compartments documented in Belize. However these two approaches could support several of the national priorities, especially the export of livestock or products of animal origin. For example, if the national “sweep” to test the cattle herd for brucellosis and TB were to identify pockets of infection, the development of one or more free zones may be required as a basis for the export of live cattle to Mexico.

To establish disease-free zones requires the support of livestock producers and thus BAHA has to engage in consultation with stakeholders. Farmers should understand and hopefully accept the implications of a possible division of the cattle population into different subpopulations with respect to disease status. The establishment of internal controls between zones of different health status should also be discussed with stakeholders, and the benefits of zoning should be weighed against the costs of maintaining a zone (monitoring for the two diseases and controls on animal movements).

Compartmentalisation

Compartmentalisation is a concept better adapted to intensive farming such as aquaculture and poultry production. At present Belize may wish to consider the possibility of applying this concept in its shrimp and/or Tilapia farming sub-sectors that already export products to the USA and to the EU. By defining compartments of the same health and bio security status Belize could protect its aquaculture exports from restrictive measures that would apply to affected compartment(s) if an infectious disease were to appear in one or more compartment(s). Feasibility studies should take account of provisions of the OIE Aquatic code on this matter (www.oie.int/eng/normes/fcode/en_chapitre_1.4.1.htm).

Belize may also wish to consider the possibility of applying compartmentalisation in its poultry farming.

The benefits of compartmentalisation have to be balanced against the cost of establishing the compartments. BAHA needs to engage the stakeholders in discussing the benefits and the cost. In particular stakeholders have to be made aware of the necessity of establishing good farming practices, surveillance against specified diseases and clear biosecurity measures along with other costs.

X.2 Physical and human resources for capacity building in the field of international trade

As noted above, a considerable investment is required for BAHA to adequately staff its border operations. In addition to the personnel costs requirements are also identified for additional vehicles (4x4s and motorcycles) as well as telecommunications and computer equipment, and in some cases buildings.

It should be noted that the investment identified here for border posts would a) serve more than the Veterinary Service, for example it would also protect pant health, and b) might cost less than we have estimated if efficiencies can be made, for example by focusing resources on highest risk pathways and collaborating more fully with others agencies such as the Customs authority. To assist with a study these questions we have allocated resources for a team of national (4 weeks) and international consultants (2 weeks).

The relatively small allocations for work on zoning and compartmentalisation are to engage consultants and for consultation with stakeholders.

Table 7 Budget

	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
II-4. Quarantine and border security	796,884	992,449	1,169,504	1,158,964	1,158,964	1,061,352
IV-4. International certification	0	0	0	0	0	14,426
IV-5. Equivalence and other types of sanitary agreements	0	0	0	0	0	6,035
IV-6. Traceability	0	0	0	0	0	15,588
IV-7. Transparency	0	0	0	0	0	0
IV-8. Zoning	0	0	0	0	0	8,750
IV-9. Compartmentalisation	0	0	0	0	0	8,720
Total in LC	796,884	992,449	1,169,504	1,158,964	1,158,964	1,114,871
Total in USD	796,884	992,449	1,169,504	1,158,964	1,158,964	1,114,871
Total in EUR	590,284	735,147	866,299	858,492	858,492	825,831
	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
Material investments: Technical equipments	6,000	15,000	30,200	32,000	32,000	130,000
Material investments: Office IT and communications	9,750	16,875	21,875	21,875	21,875	48,500
Material investments: Transports	9,000	24,000	33,000	33,000	33,000	120,000
Material investments: Buildings	1,183	2,587	6,811	6,811	6,811	168,854
Material investments: Software and information system						150,000
Non-material investments: Expertise	0	0	0	0	0	24,225
Non-material investments: Qualifying education	0	0	0	0	0	0
Total staff expenses	620,000	730,000	840,000	840,000	840,000	
Continuing education	0	0	0	0	0	58,217
Transport and travels expenses	15,621	41,656	57,277	57,277	57,277	
Specific consumables	0	0	0	0	0	400,000
Delegated activities	0	0	0	0	0	
Exceptional funds	0	0	0	0	0	0
Other operating expenses	135,330	162,330	180,340	168,000	168,000	15,075
Total in LC	796,884	992,449	1,169,504	1,158,964	1,158,964	1,114,871

Total in USD	796,884	992,449	1,169,504	1,158,964	1,158,964	1,114,871
Total in EUR	590,284	735,147	866,299	858,492	858,492	825,831

XI. STRENGTHENING COMPETENCIES FOR VETERINARY LABORATORIES

XI.1 Action strategy in the field of veterinary laboratories

The laboratory system of BAHA comprises two small geographically separated units. A public health unit, the Central Investigations Laboratory (CIL), is located in Belize City while an animal health unit, the Central Veterinary Laboratory (CVL), is located in San Ignacio (at the Central Farm). These laboratories are very small. The CIL has two sections: chemistry with only one staff member graduated in chemistry, and microbiology with two technicians and no professional staff member. The CVL is composed of 4 sections managed by two staff members. Both labs are under the part-time direction of a veterinarian. The laboratories have in the past few years acquired some critical equipment that could allow them to perform most of the required analyses for public health and they are moving to acquire equipment and expertise to increase the diagnostic capacity in animal health (PCR methodology).

Strengths

The laboratories are staffed with small but competent and enthusiastic teams.

The expansion of international trade and of the livestock production in the country will generate the need for a broader range and higher volume of tests and the development of formal quality controls.

BAHA has planned a programme to acquire the necessary equipment and staff training to meet the growing needs of the exporting industry.

There may be opportunities to use newly acquired equipment and expertise for multiple purposes and commodities.

Weaknesses

Diagnostic capacities

While at present the small CVL can satisfy the requirements of the farming industry, the same may not be the case in a near future as Belize engages in international trade of livestock. For example, animal health conditions for the export of live cattle for slaughter in Mexico will require increased laboratory diagnostic capacity. Furthermore the need for Belize to demonstrate the prevalence of diseases such as bovine brucellosis and TB and to confirm the absence of BSE and CSF will further stretch the capacity of the lab. The limitations of the CIL for residue analysis have been reported in several occasions, including the PVS evaluation. Currently the residue testing required for the export of fishery products to the EU must be carried out abroad.

The PVS report of 2009 noted that although well organised the laboratory network of BAHA lacked of a formal quality control system.

Sample analyses cost- effectiveness

Aside from the small size of the labs, especially in staff number which is not a weakness in itself, a possible limitation is the very small number of samples analysed per year. This is particularly true for the CIL. A small number of samples limits the economic viability and effectiveness of a laboratory which may be 1) unable to demonstrate a significant return for costly investments in structures and equipment, 2) be prevented from realizing economies of scale and 3) experience difficulty acquiring and maintaining the necessary level of expertise to repeat accurately complex analyses.

Rationality of the network management

Taking into account the size of the country, and above all the size of the laboratories it is recognised by BAHA that at least a merging of the two structures should be desirable. If the merging would be important on the point of view of rationalising the use of spaces, equipment and staff management it would be even more important when the decision would be taken of designing and implementing a quality system and acquiring an accreditation.

Possible future scenarios & consideration for the development of the laboratories

What is required from a laboratory

A well managed laboratory network can be an indispensable asset for Belize. The possibility of certifying both animal products and livestock for export will depend on the guarantees that Belize will be able to give that these commodities do not constitute a threat to the public and animal health of the importing entity. Reliable laboratory results are necessary to declare absence of animal disease and/or zoonotic diseases or harmful agents in the item exported. Belize can today sign a certificate to export fisheries products to the EU availing themselves of the services of a laboratory abroad. To this needs to be added the already present necessity of preserving the acquired level of animal health and the need to guarantee the necessary level of public health for the population of Belize and for the increasing tourist population.

Possible strategy

BAHA to support the livestock industry and to preserve the public health in Belize and commercial partners needs to be able to give to its clients:

- reliable result of a requested analysis
- Increase the range and number of tests done in a cost-effective manner

To be able to achieve that BAHA needs to establish first a strategy to

- Develop a lab business strategy that balances in-house testing and contracted testing to optimize efficiency and effectiveness.
- Study the feasibility and conduct a cost/benefit analysis of a proposal to consolidate all of BAHA's laboratory services at one central location (Belmopan or Cayo Farm).

What is needed to develop the laboratory network

Needs for laboratories are expected to increase, driven in part by plans to export cattle to Mexico and Guatemala and goats to Jamaica, and possibly in the following years also the export of poultry and beef to Mexico, as well as the continued export of aquaculture and fishery products to the EU and USA. These will drive/direct needs for animal health and food safety testing services that will require investments in:

- Staff: estimate doubling the present number
- Expertise: training needed in use of the equipment acquired: HPLC etc, or to be acquired (PCR)
- Quality management systems: quality manual, SOPs, training, accreditation
- Structures and vehicles: expansion and refurbishment

How these needs can best be met (e.g. by in-house or contracted services) should be carefully weighed taking into consideration:

- the cost of various analyses, as well as any time constraints that might preclude transport outside of the country

- the necessary investments described above
- the number of analyses carried out today and projected for the future in both animal health and food safety
- the possibility of contracting abroad or with other labs in Belize for some of the analyses
- BAHA's current assets – human, financial and physical - and possible strategies to maximise their efficiency (e.g. by consolidating the small existing laboratories to share costs and expertise)
- The capacity of the exporting sectors to fund laboratory services either through cost recovery or by providing funds for contracted services.

Before further investments are made it would be wise to pause for an assessment of two key questions:

- a. What laboratory services should be performed by BAHA and what analyses could be more efficiently performed by other laboratories, whether in or outside of the country without a loss of effectiveness in terms of mission objectives (timeliness, security, etc).
- b. Should the existing laboratories be consolidated at one location and if so where?

These important and inter-connected questions should be studied in a coordinated approach by a team that would combine international and local expertise on disease control and food safety programmes, laboratory operations and building construction and maintenance.

XI.2 Physical and Human Resources (laboratories)

For the proposed review laboratory strategies funds were allocated for international consultant(s) (2 weeks) and local consultants (3 months) to work with BAHA personnel on these issues. The outcome of this study may lead to adjustments in the planned expenditures set out below which largely reflect the current directions on which a major investment is planned with the support of an IDB loan.

Significant investments in laboratory buildings (\$US 270,000) and equipment (\$US 157,800) reflected in the 5 year “upgrading” budget are based on estimates drawn largely from the plans developed by Belize for the IDB-funded project.

To provide a minimum domestic capacity for the required animal health and food safety testing the number of staff would need to be increased from 1 to 5 professionals and 6 to 9 technicians (7 to 14 overall). An additional professional would be required to oversee a formal laboratory quality assurance programme. These staff increases would increase the annual salary budget to \$US 207,000 by year 5.

Staff training would consist of about \$34,000 for specialized courses to be taken out of country and an investment for continuing education – e.g. for quality control, of \$11,000 in the first year and \$5,500 ongoing.

XI.3 Budget

Funding for staff training activities appears in the Table of section XI.3 as part of the Upgrading Plan and as an ongoing expenditure.

Table 8 Budget

	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
II-1. Veterinary laboratory diagnosis	271,304	315,363	355,963	362,363	365,363	498,136
II-2. Laboratory quality assurance	32,676	27,138	27,138	27,138	27,138	4,800
Total in LC	303,980	342,501	383,101	389,501	392,501	502,936
Total in USD	303,980	342,501	383,101	389,501	392,501	502,936
Total in EUR	225,170	253,704	283,778	288,519	290,741	372,545

	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
Material investments: Technical equipments	69,000	107,800	113,600	120,000	123,000	270,000
Material investments: Office IT and communications	7,875	7,875	7,875	7,875	7,875	0
Material investments: Transports	0	0	0	0	0	0
Material investments: Buildings	2,429	7,688	7,688	7,688	7,688	157,766
Material investments: Software and information system						0
Non-material investments: Expertise	0	0	0	0	0	21,570
Non-material investments: Qualifying education	0	0	0	0	0	33,600
Total staff expenses	178,000	178,000	207,000	207,000	207,000	
Continuing education	11,076	5,538	5,538	5,538	5,538	0
Transport and travels expenses	0	0	0	0	0	
Specific consumables	0	0	0	0	0	20,000
Delegated activities	0	0	0	0	0	
Exceptional funds	0	0	0	0	0	0
Other operating expenses	35,600	35,600	41,400	41,400	41,400	0
Total in LC	303,980	342,501	383,101	389,501	392,501	502,936
Total in USD	303,980	342,501	383,101	389,501	392,501	502,936
Total in EUR	225,170	253,704	283,778	288,519	290,741	372,545

XII. STRENGTHENING CROSS-CUTTING COMPETENCIES

The purpose of this section is to explain the activities relating to cross-cutting competencies such as legislation, communication, engagement of stakeholders and official representation.

XII.1 Action strategy

The priority areas for action are as follows:

1) Updating and enforcing the legislation and regulations

Implement in-house (BAHA) legal and enforcement capacity to support all of its programme activities. In order to more expeditiously prepare and update laws and regulations the agency should hire staff for legal and enforcement units (each consisting of one professional and one support staff).

Propose updates to the law on BAHA and proposed new regulations in areas such as accreditation of private veterinarians and laboratories, animal identification and the prevention or control of Tuberculosis and BSE.

Establish a programme to promote compliance of the regulated communities and stakeholders in order to improve the control of veterinary drug distributors and “irregular” veterinary practices (see Section IX). This would be followed by active enforcement actions.

Develop audit capacity in BAHA, one professional and one support staff (budgeted under Section VI) and provide training (budgeted under Sections VI and XI respectively).

2) Communications

Staff a new communications unit in BAHA (budgeted under I.1A/B) to serve the VS in areas of animal health and food safety (this could be part of a corporate BAHA communications group). An early action of this new unit should be to review and upgrade of existing website with the support of a web designer and in consultation with clients.

3) Stakeholder consultation and engagement

Build capacity for stakeholder participation as other competencies are developed, for example:

- invite stakeholders to provide input to a review of the VS web site and to help plan the improvements upgrade in year 1
- seek stakeholder feed back on experience with Mexico equivalency agreement, traceability and export strategy (year 3), and
- engage stakeholders in year 5 to review BAHA/VS in final year of IBD investments

XII.2 Physical and human resources

Staff required for new legal, enforcement and communications units – each consisting of one professional and one support worker, are budgeted in this section. These new units also require office space and equipment.

The communications unit also requires in-house printing capacity (estimated at US\$ 25,000) as well as contracted printing work (posters, pamphlets).

A vehicle (4x4 without corporate markings) would be required for use by the enforcement unit during investigations.

XII.3 Budget

Funds are also budgeted for the upgrade of an existing website with the support of a web designer (local expertise 20 days) and in consultation with clients (2 days).

Budgets are allocated for stakeholder consultations and compliance promotion with legislation (CC III-2, III-3, IV-2) as well as under specific competencies, e.g. CC III.5 for “regularization” of the practice of veterinary medicine.

Table 9 Budget for transversal competencies

	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
II-3. Risk analysis	0	0	0	0	0	4,800
II-11. Emerging issues	0	0	0	0	0	21,110
II-12. Technical innovation	0	0	0	0	0	0
III-1. Communications	33,000	40,567	40,567	40,567	40,567	52,254
III-2. Consultation with stakeholders	3,350	3,350	3,350	3,350	3,350	26,565
III-3. Official representation	27,300	27,300	27,300	27,300	27,300	0
III-6. Participation of producers and other stakeholders in joint programmes	3,350	3,350	3,350	3,350	3,350	0
IV-1. Preparation of legislation and regulations, and implementation of regulations	66,000	85,667	85,667	85,667	85,667	67,008
IV-2. Stakeholder compliance with legislation and regulations	0	8,350	8,350	8,350	8,350	16,700
IV-3. International harmonization	0	0	0	0	0	0
Total in LC	133,000	168,584	168,584	168,584	168,584	188,437
Total in USD	133,000	168,584	168,584	168,584	168,584	188,437
Total in EUR	98,519	124,877	124,877	124,877	124,877	139,583

	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
Material investments: Technical equipments	0	5,000	5,000	5,000	5,000	25,000
Material investments: Office IT and communications	0	6,750	6,750	6,750	6,750	27,000
Material investments: Transports	0	6,000	6,000	6,000	6,000	30,000
Material investments: Buildings	0	950	950	950	950	28,512
Material investments: Software and information system						0
Non-material investments: Expertise	0	0	0	0	0	43,050
Non-material investments: Qualifying education	0	0	0	0	0	4,800
Total staff expenses	82,500	82,500	82,500	82,500	82,500	
Continuing education	0	0	0	0	0	0
Transport and travels expenses	27,300	35,834	35,834	35,834	35,834	
Specific consumables	0	0	0	0	0	0
Delegated activities	0	0	0	0	0	
Exceptional funds	0	0	0	0	0	0
Other operating expenses	23,200	31,550	31,550	31,550	31,550	30,075
Total in LC	133,000	168,584	168,584	168,584	168,584	188,437
Total in USD	133,000	168,584	168,584	168,584	168,584	188,437
Total in EUR	98,519	124,877	124,877	124,877	124,877	139,583

XIII. GLOBAL BUDGET ANALYSIS

The budget estimates presented here are the sum of all previous Tables. Some key observations and points to bear in mind while reviewing these numbers are:

The proposed programme would more than double the annual BAHA budget from its current \$US 1.75 M per year to over \$US 3.7 M per year. This would be an increase from about 8% to about 18% of the national livestock GDP (\$US 21 M). While this is a dramatic increase it should be borne in mind that:

- these costs might be reduced by alternate approaches with respect to laboratories and border operations, and
- these investments are essential to an export strategy that could greatly enhance the GDP from livestock - for example the first tranche of this strategy, namely the export of 10,000 cattle to Mexico for slaughter, would alone add some \$US 5 M to increase the annual livestock GDP by 26%.

Before taking account of possible savings, the total staff costs would rise to \$US 2.2 M per year, requiring a significant increase to the core funding of BAHA. This would increase the numbers of veterinarians (from 5 to 8), other professionals (from 7 to 29) and technicians (from 54 to 110). The staff increases would be distributed in headquarters (from 29 to 52), laboratories (from 7 to 14), the Quarantine Department (from 30 to 70) and other field staff (from 15 to 41).

By far the largest investment (33% of the proposed \$US 3.7 M annual budget) would be in the Quarantine Department for inspection at ports of entry. To fully deliver this programme as currently designed would require an increase of about 40 FTE (20 for coverage at four new ports of entry and 20 to close gaps in coverage at 6 existing ports of entry). Before approving this increase BAHA should seek efficiencies by considering alternate strategies and designs for its inspection programme at ports of entry. Careful consideration should also be given to how the increased costs should be funded as there is a case to be made that a significant portion of these costs should be borne by sectors of the economy beyond agriculture that are driving the increase in the number of ports of entry.

Investments to upgrade capacity would represent about 2.9 M USD for technical equipment, building upgrades, IT, office and information systems, transportation, training and consulting expertise.

Table 10 Global budget

	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
I-1. Composition of science and technical staff.						
A. Professional and technical staffing of the VS	259,200	324,000	324,000	324,000	324,000	0
I-1. Composition of science and technical staff. B. Veterinary para-professionals and other technical personnel	380,400	452,400	452,400	452,400	452,400	0
I.2. Competencies of veterinarians and veterinary para-professionals A. Veterinarians and other professionals	7,800	3,900	3,900	3,900	3,900	240,000
I.2. Competencies of veterinarians and veterinary para-professionals B. Veterinary para-professionals and technical personnel	0	0	0	0	0	0
I-3. Continuing education	99,684	121,836	132,912	132,912	132,912	0
I-4. Technical independence	0	0	0	0	0	33,075
I-5. Stability of structures and sustainability of policies	0	0	0	0	0	0
I-6. Coordination capability of the sectors and institutions of the VS	0	0	0	0	0	0
I-7. Physical resources	145,529	143,422	180,359	180,359	180,359	325,561
I-8. Funding	0	0	0	0	0	19,505
I-9. Contingency and compensatory funding	10,050	3,350	3,350	3,350	3,350	10,770
I-10. Capability to invest and develop	3,350	1,675	1,675	1,675	1,675	0
II-1. Veterinary laboratory diagnosis	271,304	315,363	355,963	362,363	365,363	498,136
II-2. Laboratory quality assurance	32,676	27,138	27,138	27,138	27,138	4,800
II-3. Risk analysis	0	0	0	0	0	4,800
II-4. Quarantine and border security	796,884	992,449	1,169,504	1,158,964	1,158,964	1,061,352
II-5. Epidemiological surveillance A. Passive	178,668	313,586	313,586	321,086	321,086	184,764
II-5. Epidemiological surveillance B. Active	8,600	23,600	23,600	31,100	31,100	6,035
II-6. Early detection and emergency response	6,119	11,119	11,119	11,119	11,119	43,025
II-7. Disease prevention, control and eradication	916,730	96,410	86,410	71,410	71,410	107,382
II-8. Veterinary public health and food safety	338,161	415,175	431,175	419,175	407,175	128,152
II-9. Veterinary medicines and veterinary biologicals	13,200	22,690	22,690	22,690	22,690	44,592
II-10. Residue testing	0	0	0	0	0	27,270
II-11. Emerging issues	0	0	0	0	0	21,110
II-12. Technical innovation	0	0	0	0	0	0
III-1. Communications	33,000	40,567	40,567	40,567	40,567	52,254
III-2. Consultation with stakeholders	3,350	3,350	3,350	3,350	3,350	26,565
III-3. Official representation	27,300	27,300	27,300	27,300	27,300	0
III-4. Accreditation / Authorisation / Delegation	0	0	0	0	0	14,426
III-5. Veterinary Statutory Body	0	0	26,800	40,200	53,600	29,600
III-6. Participation of producers and other stakeholders in joint programmes	3,350	3,350	3,350	3,350	3,350	0
IV-1. Preparation of legislation and regulations, and implementation of regulations	66,000	85,667	85,667	85,667	85,667	67,008
IV-2. Stakeholder compliance with legislation and regulations	0	8,350	8,350	8,350	8,350	16,700
IV-3. International harmonisation	0	0	0	0	0	0
IV-4. International certification	0	0	0	0	0	14,426
IV-5. Equivalence and other types of sanitary agreements	0	0	0	0	0	6,035
IV-6. Traceability	0	0	0	0	0	15,588
IV-7. Transparency	0	0	0	0	0	0
IV-8. Zoning	0	0	0	0	0	8,750
IV-9. Compartmentalisation	0	0	0	0	0	8,720
Total in LC	3,601,354	3,436,698	3,735,166	3,732,426	3,736,826	3,020,401
Total in USD	3,601,354	3,436,698	3,735,166	3,732,426	3,736,826	3,020,401
Total in EUR	2,667,669	2,545,702	2,766,789	2,764,760	2,768,019	2,237,334

	Annual budget - Year 1	Annual budget - Year 2	Annual budget - Year 3	Annual budget - Year 4	Annual budget - Year 5	Upgrading Plan
Material investments: Technical equipments	75,000	127,800	148,800	157,000	160,000	425,000
Material investments: Office IT and communications	49,125	99,750	114,500	114,500	114,500	261,500
Material investments: Transports	84,000	150,000	171,000	171,000	171,000	435,000
Material investments: Buildings	8,205	22,387	27,731	27,731	27,731	585,763
Material investments: Software and information system	0	0	0	0	0	150,000
Non-material investments: Expertise	0	0	0	0	0	185,715
Non-material investments: Qualifying education	0	0	0	0	0	340,800
	0	0	0	0	0	0
Total staff expenses	1,775,000	2,076,000	2,215,000	2,215,000	2,215,000	0
Continuing education	127,955	144,569	182,445	195,845	209,245	131,373
Transport and travels expenses	179,161	259,587	292,275	292,275	292,275	0
Specific consumables	357,227	48,600	48,600	63,600	63,600	440,000
Delegated activities	484,500	0	0	0	0	0
Exceptional funds	56,000	20,000	10,000	5,000	5,000	0
Other operating expenses	405,180	488,005	524,815	490,475	478,475	65,250
Total in LC	3,601,354	3,436,698	3,735,166	3,732,426	3,736,826	3,020,401
Total in USD	3,601,354	3,436,698	3,735,166	3,732,426	3,736,826	3,020,401
Total in EUR	2,667,669	2,545,702	2,766,789	2,764,760	2,768,019	2,237,334
Part of the annual investment budget	6.0%	11.6%	12.4%	12.6%	12.7%	
Part of the annual staff expenses budget	49.3%	60.4%	59.3%	59.3%	59.3%	

XIV CONCLUSION

Belize has continued to make progress to build on the sound foundation as well as the needs that were described in the PVS evaluation. Promising investments are planned and clear economic and trade opportunities are being pursued.

Key factors for success of these proposed initiatives will be:

- An increased in core funding to BAHA to reduce the unusually high reliance on revenue from fees for service. The sustainability of work to be funded by a major IDB loan and other investments will be very much at risk without enhanced ongoing funding to provide BAHA with the personnel and operating resources that it requires, in particular staff for border posts, field operations, laboratories and new headquarters functions such as audit, legal, enforcement and communications units.
- There is a need to enact proposed new laws and regulations that have been drafted, and to develop policies and strategies for animal disease control and compensation.
- There is a need to develop strategies and programmes to promote compliance and enforce laws to improve the control of veterinary drugs and to reduce the illegal practice of veterinary medicine.
- BAHA should continue to strengthen its investments in continuing education, including management and leadership training which have helped it to gain national and international recognition as a well run institution.

Underlying these required actions are two key decisions that will require the support of senior political leaders:

- allocation of sustainable core funding for BAHA, and
- adoption of strategies and actions to control veterinary drugs and the illegal practice of veterinary medicine.

XV APPENDICES

1. Critical Competency Cards
2. List of persons met or interviewed
3. PowerPoint presentation for the closing meeting

APPENDIX 1. Critical Competency Cards

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

I.1.A. Veterinarians and other professionals (university qualifications)

1. Specific objective	
<i>The staffing of the VS is appropriate to allow veterinary functions to be undertaken efficiently and effectively.</i>	
2. Result / Expected level of advancement:	
4. There is a systematic approach to defining job descriptions and formal appointment procedures for veterinarians and other professionals.	
5. There are effective management procedures for performance assessment of veterinarians and other professionals.	
3. Key issues and strategy of the activity	
Description of the activity	Recruit 3 (total raised from 5 to 8) public sector veterinarians and 20 (total raised from 8 to 28) other professionals in the fields listed under the various competencies. Rationalize the delivery and distribution of veterinary and quarantine services along the lines stated in the report.
Link with national priorities:	Links with all the national priorities
Strategy of the activity	Recruit veterinarians and other professionals as per schedules set out below. Note: this strategy covers all of the staffing requirements, not just those for central and coordination functions that are set out in the accompanying cost estimation sheet. Develop policies that influences the viability of veterinary practice especially in rural areas – dealing with issues such as the illegal practice of veterinary (see VSB III.5), control of veterinary drugs (see II.9), employment of private “accredited” veterinarians to deliver official services (see III.4), removing BAHA from delivery of non-official services, and other factors affecting the distribution of veterinary practitioners (e.g. bonuses, loans, insurance, tax exemptions, etc. for practice in remote areas). Analysis (XL spreadsheet on practitioners) indicates that between 2-8 private veterinarians would be needed to service the livestock population and geography. It also suggests that revenues should be more than adequate if illegal practices re veterinary drugs and veterinary services are curtailed, thereby driving revenues to the qualified practitioners. In remote areas or areas with low livestock population that would not support private farm animal veterinary practices (e.g Toledo, Stan Creek, Corozal), consider staff from MAF – hired or employed under contract. Hire other professionals to strengthen capacity of BAHA for border inspections, communications, legal, investigation/enforcement, programme audit, laboratory and quality control activities.
Objectively verifiable indicators	veterinary posts established and filled other professional posts established and filled number and distribution of private veterinarians.
4. Tasks and time frame	
Year 1	establish a system to track veterinarians in training abroad, and to forecast requirements and supply of professionals over time recruit 3 veterinarians and 17 other professionals review national policies to foster private veterinary practice (see III.5. II.9, III.4)
Year 2	recruit four other professionals; implement policies to rationalize practice of veterinary medicine
Year 3	recruit one other professional; recruit others as required (attrition); implement policies to rationalize practice of veterinary medicine
Year 4	recruit as required (attrition); implement policies to rationalize practice of veterinary medicine
Year 5	recruit as required (attrition); implement policies to rationalize practice of veterinary medicine
5- Cross-cutting competencies and corresponding actions	
Continuing Education (I.3)	training on management, leadership and effective supervision
Communication (III.1)	Communication on incentive measures, recruitment, respective functions
Consultation (III.2)	Consultation on the private sector sanitary network
Procedures	Job procedures and descriptions

I.1.A. Professional and technical staffing of the Veterinary Services Veterinary and other professionals (university qualification)

<i>Means required to upgrade competence</i>		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency and compensatory funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
<i>Means needed for operational requirements (not covered in chap.1)</i>		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :	4	4	4	4	4
	Other university graduates (No.) :	7	10	10	10	10
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other functioning expenses (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipment: Telecommunications, Desk IT equipment, transport vehicles, technical equipment	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

I.1.B. Scientific and technical staffing. Veterinary para-professionals and other technical staff

1. Specific objective	
<i>The staffing of the VS is appropriate to allow veterinary functions to be undertaken efficiently and effectively.</i>	
2. Result / Expected level of advancement:	
4. The majority of technical positions are effectively supervised on a regular basis.	
5. There are effective management procedures for formal appointment and performance assessment of veterinary para-professionals.	
3. Key issues and strategy of the activity	
Description of the activity	Recruit required number of veterinary para-professionals and support staff; Address regional distribution issues and issues of supervision by veterinarians (see III.5 re control of illegal veterinary practices)
Link with national priorities:	Links with all the national priorities
Strategy of the activity	Note: this strategy covers all of the staffing requirements, not just those for central and coordination functions for which funding is set out in the accompanying cost estimation sheet. Recruit 56 new veterinary para-professionals or other qualified technical persons (increase total to 108 from 52) for the public sector in the fields listed under the various competencies. Note that approx 40 of these new staff are for new and existing border posts; their roles include plant protection. Recruit 12 new support staff (increase total from 14 to 26) Establishing effective supervision of veterinary para-professionals (see III.5)
Objectively verifiable indicators	Number of veterinary para-professionals and other technical persons in BAHA; adequate staffing of key functions (eg border inspection posts); Supervisory procedures and their application
4. Tasks and time frame	
Year 1	establish an inventory of Belize citizens who are studying in other countries to become veterinarians so as to be able to forecast the future supply of veterinarians recruit approx 29 veterinary para-professionals or other qualified technical persons and 8 support staff for the public sector in the fields listed under the various competencies
Year 2	Recruit approximately 17 veterinary para-professionals or other qualified technical persons and 4 support staff for the public sector in the fields listed under the various competencies
Year 3	Recruit approximately 20 veterinary para-professionals or other qualified technical persons for the public sector in the fields listed under the various competencies
Year 4	Recruit as required to maintain required levels
Year 5	Recruit as required to maintain required levels
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training on effective supervision
Info management	demographic databases on veterinary para-professionals.

I.1.B. Professional and technical staffing of the Veterinary Services Veterinary para-professionals and other technical personnel

<i>Means required to upgrade competence</i>		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days)					
	International expertise (Nb of Man-Weeks):					
2- Continuing education to level	Public sector (No. sessions 1 week):					
	Private sector (No. of days):					
3- Qualifying education	Veterinarians (No.):					
	Other university courses (No.):					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency and compensatory funds					
7- Premises investments	Renovation of premises (in m ²):					
	Building construction (in m ²):					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.):					
	Desk IT units (No.):					
	Motocycles (No.):					
	Cars (No.):					
	4x4 vehicles (No.):					
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.):					
	Other university graduates (No.):					
	Veterinary para-professional (No.):	15	17	17	17	17
	Support staff (No.):	16	20	20	20	20
2- Initial training	Veterinarians (No.):					
	Other university graduates (No.):					
	Veterinary para-professional (No.):					
3- Continuing education	Public sector (No. sessions 1 week):					
	Private sector (No. of days):					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other functioning expenses (in the annual budget):					
	Fuel for motorcycles (No. of km):	-	-	-	-	-
	Fuel for saloon cars (No. of km):	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km):	-	-	-	-	-
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days)					
	International expertise (No. of Man-Weeks):					
8- Premises	Surface area in m2					
9- Equipement:	Telecommunication Units (No.):					
	Office technology unit (No.):					
	Motocycles (No.):					
	Cars (No.):					
	4x4 vehicles (No.):					
	Other transport vehicles (No.)					
10- Contingency funds	Estimated costs of acquiring technical equipment					
	Allocation to compensation and emergency funds					

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

I.2.A. Professional competencies of veterinarians

1. Specific objective	
<i>The VS have the capability to efficiently carry out their veterinary functions, as measured by the academic qualifications of their personnel in veterinary and other professional positions.</i>	
2. Result / Expected level of advancement:	
3. The veterinarians' practices, knowledge and attitudes usually allow undertaking all professional/technical activities of the VS (e.g. epidemiological surveillance, early warning, public health, etc.).	
4. The veterinarians' practices, knowledge and attitudes usually allow undertaking specialized activities as may be needed by the VS.	
5. The veterinarians' practices, knowledge and attitudes are subject to regular updating, or international harmonisation, or evaluation.	
3. Key issues and strategy of the activity	
Description of the activity	Train 1 veterinarian annually (out of an eventual total of 8 employed by BAHA) to MSc or diploma level and other professionals as required for their new roles
Link with national priorities	Links with all the national priorities, especially expertise to support national disease prevention and control work in support of the LD and export strategies
Strategy of the activity	<p>Due to importance of aquaculture and the growing importance of the poultry industry and the proposed export of cattle there is a need for the following veterinary specialization:</p> <ul style="list-style-type: none"> ○ Train veterinarians in epidemiology including risk analyses (money to be budgeted under specialised courses, considering MSc level education) ○ Train or hire a poultry disease specialist. ○ Maintain expertise in aquaculture (secure the service of a biologist) <p>Other professionals will require training in their specialized areas such as programme auditing, ISO quality control systems, new laboratory methods, etc.</p>
Objectively verifiable indicators	Number of professionals trained per year
4. Tasks and time frame	
Year 1	MSc training abroad (US\$48,000 per year) epidemiology, poultry path, aquaculture Train professional in programme auditors (2 weeks international travel plus 1 week in the next 4 years) Other specialized training budgeted under relevant competencies
Year 2	ongoing training
Year 3	ongoing training
Year 4	ongoing training
Year 5	ongoing training
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	Training in management and leadership competencies
Communication (III.1)	Persons returning from training should share what they have learned by writing reports or making presentations that could be shared with other persons
Official representation (III.3)	Recognize value of attendance at international meetings as a training opportunity; share trip reports with colleagues
Procedures	Require informative trip reports before expenses paid
Information management	Track training investments

I.2.A. Competencies of veterinarians

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses	1	1	1	1	1
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency and compensatory funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other functioning expenses (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)	2	1	1	1	1
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m ²					
9- Equipment:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

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

I.2.B. Competencies of veterinary para-professionals

1. Specific objective	
<i>The VS have the capability to efficiently carry out their technical functions, as measured by the qualifications of veterinary para-professionals</i>	
2. Result / Expected level of advancement:	
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.	
3. Key issues and strategy of the activity	
Description of the activity	Provide required training for new and existing irregular practitioners to be licenced as veterinary para-professionals
Link with national priorities:	
Strategy of the activity	Establish a national curriculum to support “regularisation” of approx 30 current irregular practitioners (budgeted under III.5); offer training in years 3-5 Provide training for approx 40 newly recruited border personnel (budgeted under II.4) Purchase specialised training as required for veterinary para-professionals in public health, laboratory work, aquaculture etc. (budgeted under relevant competencies)
Objectively verifiable indicators	Curricula for veterinary para-professionals; Records of on the job training and specialised training
4. Tasks and time frame	
Year 1 - 2	Provide training for newly recruited border personnel specialized training as scheduled under relevant competencies develop curriculum for veterinary para-professionals;
Year 2	Provide training for newly recruited border personnel specialized training as scheduled under relevant competencies develop curriculum for irregular practitioners
Year 3	Provide training for newly recruited border personnel specialized training as scheduled under relevant competencies train veterinary para-professionals and irregular practitioners (regularization project);
Year 4 - 5	train veterinary para-professionals; and irregular practitioners (regularization project) specialized training as scheduled under relevant competencies
Year 5	train irregular practitioners (regularization project); specialized training as scheduled under relevant competencies
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training programme for irregular practitioners (regularization project)
Legislation (IV.1, 2, 3)	enforce Veterinary Act (see IV.2)
Communication (III.1)	Communication with teaching institutions for the benefit of students.
Consultation (III.2)	Consultation with teaching staff, the veterinary para-professional body and the VS.
Procedures	registration of veterinary para-professionals; irregular practitioners
Information management	expanded registry of practitioners records of training available and taken

I-3. Continuing education

1. Specific objective	
<i>The VS have the capability 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.</i>	
2. Result / Expected level of advancement:	
2. The VS have access to continuing education (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 continuing education that is reviewed annually and updated as necessary, but it is implemented for less than 50% of the relevant personnel.	
4. The VS have access to continuing education that is reviewed annually and updated as necessary, and it is implemented for more than 50% of the relevant personnel.	
5. The VS have up-to-date continuing education that is implemented for all relevant personnel.	
3. Key issues and strategy of the activity	
Description of the activity	Develop and fund a BAHA-wide continuing education programme linked to annual work plans and performance appraisals
Link with national priorities:	all
Strategy of the activity	<p>Develop a training needs identification and planning system linked to annual work plans and performance appraisals</p> <ul style="list-style-type: none"> ○ Include supervisory, management and leadership training ○ Job-specific technical training ○ Other? <p>Allocate required resources on an annual basis (our estimate assumes on average minimum 2 weeks / employee annually for a staff numbers that rise from 139 in year #1 to 178 by year #3)</p>
Objectively verifiable indicators	Number of days' training per staff member, by topic.
4. Tasks and time frame	
Year 1	develop Human Resources management system for training training investments year 1
Year 2	training investments
Year 3	training investments
Year 4	training investments
Year 5	training investments
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Communication (III.1)	Communication with managers on the need for continuing education and links to employee performance appraisals
Procedures	Develop a training needs identification and planning system linked to annual work plans and performance appraisals
Information management	Information on continuing education (training calendars, trip reports) shared with members of staff

I.3. Continuing education

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.) :					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :	18	22	24	24	24
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
Foreign travels (No. of trips)						
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m ²					
9- Equipement:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Estimated costs of acquiring technical equipment						
10- Contingency funds	Allocation to compensation and emergency funds					

I-4. Technical independence

1. Specific objective	
<i>The VS have the capability 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>	
2. Result / Expected level of advancement:	
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).	
3. Key issues and strategy of the activity	
Description of the activity	Strengthen policies and practices to prevent and address any possible conflict of interest
Link with national priorities:	VS1, VS2, LD1, VPH2
Strategy of the activity	Reduce possible conflict of interest at the level of the BAHA Board through provisions of the new legislation Reduce possible conflict of interest for BAHA staff by adopting a conflict of interest code for BAHA
Objectively verifiable indicators	New BAHA Act Conflict of Interest code for BAHA Training programme for BAHA staff on public service values and ethics
4. Tasks and time frame	
Year 1	Pass and implement new BAHA Act Develop Conflict of interest code (drawing upon national and international expertise) Develop a training programme for BAHA staff on public service ethics and avoidance of conflict of interest (1 week international professional and 20 days local consultant)
Year 2	Apply Code, compliance promotion staff training on public service ethics (1 week annually)
Year 3	Apply Code, compliance promotion staff training on public service ethics
Year 4	Apply Code, compliance promotion staff training on public service ethics
Year 5	Apply Code, compliance promotion staff training on public service ethics
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	Orientation courses for BAHA staff should address ethics and avoidance of conflicts of interest
Legislation (IV.1, 2, 3)	pass BAHA legislation
Communication (III.1)	communications to staff re ethics and avoidance of conflicts of interest
Procedures	Conflict of interest code and procedures for its application

I.4. Technical independence

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :	10				
	International expertise (Nb of Man-Weeks) :	1				
2- Continuing education to level	Public sector (No. sessions 1 week)	1	1	1	1	1
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipement:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

I-5. Stability of structures and sustainability of policies

1. Specific objective	
<i>The VS have the capability to implement and sustain policies over time.</i>	
2. Result / Expected level of advancement:	
4. There are generally only minor changes in the organisational structure of the public sector of the VS following a change in the political leadership and these have little or no effect on sustainability of policies.	
5. The organisational structure of the public sector of the VS generally remains stable for longer periods (e.g. 5 years) and is only modified based on an evaluation process, with little or no effect on the sustainability of policies.	
3. Key issues and strategy of the activity	
Description of the activity	Continue regular improvements of policies and the organisation
Link with national priorities	All
Strategy of the activity	Policy development needed for TB and brucellosis programmes, compensation programme, role of government in the practice of veterinary medicine (see actions under III.5)
Objectively verifiable indicators	
4. Tasks and time frame	
Year 1	Develop policies for the control of brucellosis and TB; pass the relevant regulations (see II.7) Develop policy on compensation (see I.9) Develop policies and strategies on government support to the development of the private veterinary sector including incentives for rural practice (see I.1.A), control of veterinary drugs (see II.9), accreditation (see III.4), and enforcement of the Veterinary Act (see III.5) Training and consultation as set out in afore-mentioned competencies
Year 2	Continue policy development as required Training and consultation as set out in afore-mentioned competencies
Year 3	Continue policy development as required Training and consultation as set out in afore-mentioned competencies
Year 4	Continue policy development as required Training and consultation as set out in afore-mentioned competencies
Year 5	Continue policy development as required Training and consultation as set out in afore-mentioned competencies
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	train BAHA staff on new regulations
Legislation (IV.1, 2, 3)	Pass BAHA legislation and pertinent regulations (e.g. accreditation)
Communication (III.1)	communicate policies to stakeholders
Consultation (III.2)	engage stakeholders in policy development
Procedures	develop SOPs to put the new regulations and policies into effect

I-6. Coordination capability of the sectors and institutions of the Veterinary Services (public and private)

1. Specific objective	
<i>The VS have the capability to coordinate national activities, including disease control and eradication programmes, food safety programmes and responses to emergency situations.</i>	
2. Result / Expected level of advancement:	
3. There are coordination mechanisms with a clear chain of command for some activities, but these are not coordinated / implemented throughout the country.	
4. There are coordination mechanisms with a clear chain of command at the national level for most activities, and these are uniformly implemented throughout the country.	
5. There are agreed coordination mechanisms that can be implemented as necessary to address all activities.	
3. Key issues and strategy of the activity	
Description of the activity	Strengthen collaboration between BAHA and MoH in respect on meat inspection at municipal level
Link with national priorities	VPH1, AH0,1&2, LD1
Strategy of the activity	Hire 3 new inspectors to allow BAHA to improve coordination with MoH by overseeing municipal meat inspectors in order to gather surveillance data and perform ante-mortem inspection
Objectively verifiable indicators	
4. Tasks and time frame	
Year 1	Hire and train required BAHA personnel
Year 2	Train municipal inspectors in basics of disease surveillance Implement enhanced inspection
Year 3	Implement enhanced inspection
Year 4	Implement enhanced inspection
Year 5	Implement enhanced inspection
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Legislation (IV.1, 2, 3)	Complete update of BAHA legislation as required to provide necessary authority
Procedures	SOPs for BAHA and MoH staff setting out their respective roles at these sites of shared jurisdiction
Information management	Gather ante- and post-mortem surveillance data

I-7. Physical resources

1. Specific objective	
<i>The VS have access to relevant physical resources including buildings, transport telecommunications, cold chain, and other relevant equipment (e.g. computers).</i>	
2. Result / Expected level of advancement:	
3. The VS have suitable physical resources at national, regional and some local levels and maintenance and replacement of obsolete items occurs only occasionally.	
4. The VS have suitable physical resources at all levels and these are regularly maintained.	
5. The VS have suitable physical resources at all levels (national, sub-national and local levels) and these are regularly maintained and updated as more advanced and sophisticated items become available.	
3. Key issues and strategy of the activity	
Description of the activity	Investments are needed to expand and renovate laboratories and border control posts, expand and renew the fleet of vehicles, acquire new laboratory equipment and expand and renew IT and telecommunications equipment
Link with national priorities:	VS3, LD1, AH0, 1-2, VPH2-3
Strategy of the activity	Several physical resource investments are recommended under specific operational competencies while investments for coordination functions are identified under this competency Considering the scale of investment planned, BAHA to consider developing in-house capacity for the management of fleet, buildings and technical equipment (labs and IT) Assess feasibility, costs and benefits of laboratory consolidation (see II.1)
Objectively verifiable indicators	
4. Tasks and time frame	
Year 1	review assets management capacity and plans; study the cost effectiveness of having a management unit or contracted services (local expert two weeks to review assets management capacity) assess feasibility, costs and benefits of laboratory consolidation
Year 2	continue controlling management of assets
Year 3	continue controlling management of assets
Year 4	continue controlling management of assets
Year 5	continue controlling management of assets
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Procedures	Establish management procedures for acquisition, maintenance and replacement physical assets
Information management	Develop databases for fleet, buildings and equipment

I.7. Physical resources

		Years				
		Y1	Y2	Y3	Y4	Y5
Means required to upgrade competence						
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :	10				
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :	225	106			
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :	14	6			
	Desk IT units (No.) :	16	6			
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :	2	2			
	Other transport vehicles (No.)					
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km) :	128 000	192 000	256 000	256 000	256 000
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities	51 300				
	Local expertise (No. of Man-Days) : International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2	435	660	766	766	766
9- Equipment:	Telecommunication Units (No.) :	28	42	48	48	48
	Office technology unit (No.) :	28	44	50	50	50
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :	4	6	8	8	8
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

I-8. Funding

1. Specific objective	
<i>The VS have the ability to access financial resources adequate for their continued operations, independent of political pressure.</i>	
2. Result / Expected level of advancement:	
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.	
5. Funding for all aspects of VS activities is adequate; all funding is provided under full transparency and allows for full technical independence.	
3. Key issues and strategy of the activity	
Description of the activity	Develop more sustainable funding arrangement for BAHA by increasing public funding to support the very significant public goods derived from the activities of BAHA
Link with national priorities	All
Strategy of the activity	Develop a sustainable funding formula for BAHA that includes a higher proportion of ongoing public funding. This will require increasing the core funding to BAHA from GOB to reduce the extraordinarily high dependence of BAH on user fees (2/3 of current budget). Make effective use of funds from IDB, OIRSA and the International Atomic Energy Agency Secure funds from other sources such as the European Union (proposal under discussion) Explore with stakeholders possible additional industry funding
Objectively verifiable indicators	Improved funding formula for BAHA Project reports documenting impact of funding from IDB, IAEA, EU and OIRSA.
4. Tasks and time frame	
Year 1	Review and increase GOB funding allocation for BAHA – consulting resources required to compare BAHA with similar organisations in the UK, USA, Canada, Australia and NZ; local consultants 30 days teamed with external consultant (3 weeks). Make effective use of IDB IAEA, OIRSA funds Secure funds from other sources: EU proposal Explore with stakeholders possible additional industry funding
Year 2 - 5	Continue work on sustainable funding and make the case to political and senior officials to increase GOB funding allocations to BAHA
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Communication (III.1)	communication results of study on funding to senior public officials and stakeholders
Consultation (III.2)	discussions with stakeholders on funding arrangements

I.8. Funding

<i>Means required to upgrade competence</i>		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :	30				
	International expertise (Nb of Man-Weeks) :	3				
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.) :					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals	2				
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
<i>Means needed for operational requirements (not covered in chap.1)</i>		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km) :	-	-	-	-	-
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2		-	-	-	-
9- Equipment:	Telecommunication Units (No.) :		-	-	-	-
	Office technology unit (No.) :		-	-	-	-
	Motocycles (No.) :		-	-	-	-
	Cars (No.) :		-	-	-	-
	4x4 vehicles (No.) :		-	-	-	-
	Other transport vehicles (No.)		-	-	-	-
	Estimated costs of acquiring technical equipment		-	-	-	-
10- Contingency funds	Allocation to compensation and emergency funds					

I-9. Contingency and compensatory funding

1. Specific objective	
<i>The VS have the capability to access extraordinary financial resources in order to respond to emergency situations or emerging issues; measured by the ease with which contingency and compensatory funding (i.e. arrangements for compensation of producers in emergency situations) can be made available when required.</i>	
2. Result / Expected level of advancement:	
2. Contingency and compensatory funding arrangements with limited resources have been established, but these are inadequate for expected emergency situations (including emerging disease 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.	
3. Key issues and strategy of the activity	
Description of the activity	Define procedures to access contingency funds and develop a clear policy on compensation for animals slaughtered to address an animal health or food safety emergency
Link with national priorities	VS1, VS3, LD1, LD3, AH0, AH1, AH2, VPH3
Strategy of the activity	Define, document and rehearse use of procedures to access contingency funds to address an animal health or food safety emergency Develop in consultation with stakeholders a clear policy on compensation for livestock ordered slaughtered in response to a food safety or animal health emergency (define procedures for accessing the funds, the amount and the sources of funding, what animals will be covered, etc.). Use a team made up of international and local expertise (2 weeks of external consultant in collaboration with a local consultant for 4 weeks to carry-on with local policy implementation. Six days of consultation with stakeholders in year one; 2 days in subsequent years
Objectively verifiable indicators	Compensation policy in place Procedures for contingency funds documented Reports of simulation exercises
4. Tasks and time frame	
Year 1	2 weeks of international consultant working with local consultant (4 weeks) 6 days of consultation with stakeholders
Year 2 - 5	2 days consultation with stakeholders
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Legislation (IV.1, 2, 3)	legislative or regulatory updates if required
Communication (III.1)	inform stakeholders about new policies and procedures
Consultation (III.2)	stakeholders about new policies and procedures
Official representation (III.3)	learn about experiences and best practices from other jurisdictions
Procedures	develop SOPs

I.9. Contingency and compensatory funding

		Years				
		Y1	Y2	Y3	Y4	Y5
Means required to upgrade competence						
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :	20				
	International expertise (Nb of Man-Weeks) :	2				
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.) :					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap. 1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)	6	2	2	2	2
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km) :	-	-	-	-	-
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
Foreign travels (No. of trips)						
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m ²					
9- Equipement:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Estimated costs of acquiring technical equipment						
10- Contingency funds	Allocation to compensation and emergency funds					

I-10. Capability to invest and develop

1. Specific objective	
<i>The VS have the capability to access additional investments, over time, that lead to a sustained improvement in the VS.</i>	
2. Result / Expected level of advancement:	
3. The VS regularly secure funding for improvements in operational infrastructure, through extraordinary allocations from the national budget or from other sources, but these are allocated with constraints on their use.	
4. The VS secure adequate funding for the necessary improvements in operational infrastructure through extraordinary allocations, including from stakeholders.	
5. The VS routinely secure adequate funding for the necessary improvements in operational infrastructure.	
3. Key issues and strategy of the activity	
Description of the activity	Increase stakeholder contributions to enhance animal health and VPH activities to move from level 3 to 4
Link with national priorities	VS2, LD1, LD2, LD3, AH1, AH2, VPH1-3
Strategy of the activity	Build on collaboration with poultry and aquaculture to increase contributions from these and other sectors
Objectively verifiable indicators	Stakeholder funding increased
4. Tasks and time frame	
Year 1	consultations with BLPA and other stakeholders to consider prospects and modalities for industry contributions to compensation, livestock identification, biosecurity, and self-insurance
Year 2 - 5	ongoing stakeholder engagement
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Consultation (III.2)	stakeholder engagement on funding

I.10. Capability to invest and develop

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days)					
	International expertise (Nb of Man-Weeks)					
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)	2	1	1	1	1
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km) :	-	-	-	-	-
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
Foreign travels (No. of trips)						
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipment:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Estimated costs of acquiring technical equipment						
10- Contingency funds	Allocation to compensation and emergency funds					

II-1. Veterinary laboratory diagnosis

1. Specific objective	
<i>The VS have the authority and capability to identify and record pathogenic agents, including those relevant for public health, that can adversely affect animals and animal products.</i>	
2. Result / Expected level of advancement:	
4. For diseases of zoonotic or economic importance not present in the country, but known to exist in the region and/ or that could enter the country, the VS have access to and use a laboratory to obtain a correct diagnosis.	
5. In the case of new and emerging diseases in the region or world, the VS have access to and use a network of national or international reference laboratories (e.g. an OIE Reference Laboratory) to obtain a correct diagnosis.	
3. Key issues and strategy of the activity	
Description of the activity	Increase the range and number of tests done in the country in a cost-effective manner
Link with national priorities:	LD1, AH1, VPH2, VPH3
Strategy of the activity	<p>General Strategy:</p> <ul style="list-style-type: none"> ○ Develop a lab business strategy that balances in-house testing with contracted testing to optimize efficiency and effectiveness. Team of international consultant (2 weeks) and national consultant (4 weeks) ○ Study the feasibility and conduct a cost/benefit analysis of a proposal to consolidate all of BAHA's laboratory services at one central location (Belmopan or Cayo Farm). Local consultant (2 months) <p>Buildings, equipment and supplies:</p> <ul style="list-style-type: none"> ○ Use multiple funding sources; PCR to be performed at central farm, serving food safety, animal and plant health. ○ Create a serum bank with 10% of the samples from the "sweep" test of the national cattle herd: total expense of US\$ 20,000 (US\$10,000 for consumables). ○ Lab equipment for animal health (\$US150,000) and food safety (\$US75,000) based on IDB funding plan and GOB contributions; the food safety component includes residue testing to be done at the CIL Food safety lab. <p>Staff:</p> <ul style="list-style-type: none"> ○ No new personnel are funded under the IDB project or other donor projects so GoB will need to provide more staff to use the new equipment and facilities. At the moment there are only two 2 lab technicians (microbiologists) for food safety, one residue lab chemist and 4 animal health lab technicians (total=7). Need to increase this by one aquatic animal health lab technician, 1 chemist and 2 chemistry technicians, 1 degree holding microbiologist and 2 animal health technicians for total of 14 by year 3. ○ PCR training for 3 people (\$28,800)
Objectively verifiable indicators	Reports of studies on lab business case and proposed consolidation; Number of and training of lab staff; State of lab facilities and equipment
4. Tasks and time frame	
Year 1	<p>Prepare lab business plan including a cost/buy analysis</p> <p>Assess proposal to consolidate laboratory services at one location</p> <p>hire and train new staff required</p> <p>procure equipment</p> <p>prepare lab construction/renovation plans based on findings of the studies described above under "general strategy"</p> <p>perform initial priority renovations (e.g. to create a PCR lab at Cayo)</p> <p>priority training for new and existing personnel</p>
Year 2	<p>construction/renovation based on findings of the studies described above under "general strategy"</p> <p>procure additional equipment</p> <p>ongoing staff training</p>
Year 3	<p>hire and train remaining staff based on findings of the studies described above under "general strategy"</p> <p>procure additional equipment</p>
Year 4	<p>procure additional equipment</p> <p>further staff training</p>
Year 5	ongoing operations

5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training for lab personnel
Consultation (III.2)	consult stakeholders on lab business plan and on possible consolidation
Procedures	write lab SOPs
Information management	laboratory data management

II.1. Veterinary laboratory diagnosis

<i>Means required to upgrade competence</i>		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :	60				
	International expertise (Nb of Man-Weeks) :	2				
2- Continuing education to level	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.) :					
	Specialisation courses	0,6				
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables	20000				
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :	498				
8- Technical investments	Technical equipment	194000	29000	32000	15000	
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
<i>Means needed for operational requirements (not covered in chap.1)</i>		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :	4	4	5	5	5
	Veterinary para-professional (No.) :	8	8	9	9	9
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km) :	-	-	-	-	-
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
Foreign travels (No. of trips)						
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2	230	728	728	728	728
9- Equipment:	Telecommunication Units (No.) :	7	7	7	7	7
	Office technology unit (No.) :	7	7	7	7	7
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment	345 000	539 000	568 000	600 000	615 000
10- Contingency funds	Allocation to compensation and emergency funds					

II-2. Laboratory quality assurance

1. Specific objective	
<i>The VS apply formal quality assurance systems and take part in relevant proficiency testing programmes for laboratories (that conduct diagnostic testing or analysis for chemical residues, antimicrobial residues, toxins, or tests for biological efficacy, etc.).</i>	
2. Result / Expected level of advancement:	
Some laboratories used by the public sector VS are using formal quality assurance systems.	
All laboratories used by the public sector VS are using formal quality assurance systems.	
4.	All the laboratories used by the public sector VS and most or all private laboratories are using formal quality assurance systems.
5.	All the laboratories used by the public sector VS and most or all private laboratories are using formal quality assurance programmes that meet OIE, ISO 17025, or equivalent QA standard guidelines.
3. Key issues and strategy of the activity	
Description of the activity	Accreditation of the laboratories, development of quality assurance.
Link with national priorities:	VS3, LD1, AH1, VPH2, VPH3
Strategy of the activity	Create a new position of quality control officer (budgeted under central laboratory); train lab personnel in QA, develop SOPs and seek accreditation.
Objectively verifiable indicators	Labs have quality controls system in place
4. Tasks and time frame	
Year 1	Hire a new quality control officer Training QC officer: specialized ISO or equivalent training at US\$ 5000 (0.1 specialization course) Train lab personnel in QA (2 weeks) Start creating SOPs
Year 2	Continue write SOPs, implement SOPs Continue training (one week)
Year 3 - 5	Implement QA system including participation in inter-lab proficiency tests for key analyses Continue training (one week)
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training of lab personnel
Official representation (III.3)	consider inter-lab collaboration (twinning)
Procedures	SOPs
Information management	lab information management

II.2. Laboratory quality assurance

<i>Means required to upgrade competence</i>		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses	0,1				
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables and other functioning expenses					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
<i>Means needed for operational requirements (not covered in chap.1)</i>		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :	1	1	1	1	1
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :	2	1	1	1	1
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km) :	-	-	-	-	-
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipment:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

II-3. Risk analysis

1. Specific objective	
<i>The VS have the authority and capability to base their risk management decisions on a scientific assessment of the risks.</i>	
2. Result / Expected level of advancement:	
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).	
3. Key issues and strategy of the activity	
Description of the activity	Strengthen risk analysis at level 3
Link with national priorities:	VS3, LD1, AH0-2, VPH3
Strategy of the activity	No change in level but risk analysis (RA) will be increased as new epidemiology unit will do RA
Objectively verifiable indicators	RA reports
4. Tasks and time frame	
Year 1	hire epidemiologists (see II.5) who will perform risk analysis along with other duties training in RA for epidemiologists (\$5000)
Year 2	improve quality of RA using national and international intelligence document RAs
Year 3 - 5	ongoing
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training in RAs
Communication (III.1)	publish RAs as appropriate
Consultation (III.2)	consultations as RAs are performed
Official representation (III.3)	participation in relevant international meetings
Procedures	document RA methods
Information management	keep records of RAs performed

II.3. Risk analysis

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses	0,1				
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipment:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

II-4. Quarantine and border security

1. Specific objective	
<i>The VS have the authority and capability to prevent the entry and spread of diseases and other hazards related to animals and animal products.</i>	
2. Result / Expected level of advancement:	
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 ⁶ relating to the import of animals and animal products.	
4. The VS can establish and apply quarantine and border security procedures which systematically address legal pathways and illegal activities.	
5. The VS work with their neighbouring countries and trading partners to establish, apply and audit quarantine and border security procedures which systematically address all risks identified.	
3. Key issues and strategy of the activity	
Description of the activity	Strengthen human and physical resources at 6 existing border posts and establish operations at 4 new border posts Address illegal activities through compliance promotion in collaboration with stakeholders targeting high risk areas
Link with national priorities	VS1,3, LD1,2, AH0,1,2,
Strategy of the activity	<p>Staff</p> <ul style="list-style-type: none"> ○ To fully implement its current procedures significant increases of staff levels are required for the quarantine services due a) to new ports and b) to understaffing of existing ports. Propose a local consultant (20 days), supported by an international expert (2 weeks) to review procedures to determine if efficiencies could be made, for example through targeted sampling of high risk pathways, and/or closer partnership with and training of customs inspectors. ○ Six sites now existing and in operation; 4 new sites planned: 30 people employed now, total need estimate is 69 staff. Of these, six should be new supervisors (other professionals) to get to total of 10 supervisors that is 1 per port, phased in over 2 years. Technical officers can be recruited from graduates of the University of Belize. ○ Training of staff: now done on the job (training) – courses budgeted for years 1-5 <p>Physical resources</p> <ul style="list-style-type: none"> ○ Vehicles: 1 needed for each new site plus vehicles needed for old sites for a total of 11 new cars phased in over 1st 2 years ○ Space, available in some sites but need more space in others (storage or office space) and in some cases including 3 of the new sites (in one of them twice the normal space) also housing space. Some space provided by other agencies; where BAHA needs to fund new space its phased in over 2 years. We estimated 112 sqm existing plus 533 sqm new construction for total 645 sqm. – note this is consistent with IDB project that allocates \$US 160000 which is eq to 505 sqm new construction. ○ No X Ray machines available now, 4 needed for passenger luggage screening. Best to be rented to avoid maintenance problems – guess \$80,000 per year ○ Technical (lab office and field) equipment budgeted in accordance with IDB project plans over yrs 1-3 total \$130,000 (45+76+9K) ○ IT system to network quarantine stations under OIRSA strategy (estimated at \$190,000 TBC) ARIS (Information Network). ○ Incinerator 20,000 US\$ per new parts plus \$10,000 per maintenance (under ongoing tech equip); consider also international consultancy to review incinerator strategy (10 working days). <p>Communications and compliance promotion: Target illegal movements through a compliance promotion campaign using communications costs yrs 1-3 as per IDB estimates (\$US 40,000)</p>
Objectively verifiable indicators	Number of staff at new and existing border posts; report on efficiency of border inspection strategies; compliance promotion communications products
4. Tasks and time frame	
Year 1	Management review of strategies for efficient border inspections and resulting verification of staff levels required (20 working days of local management consultant) supported by an international expert (2 weeks); amend protocols (SOPs) and staffing strategies if appropriate

⁶ Illegal activities include attempts to gain entry for animals or animal products other than through legal entry points and/or using certification and/or other procedures not meeting the country's requirements.

	Hiring of extra staff for new and existing border posts On the job training for new personnel Procure required equipment: PC for new posts (2 per post) and telecommunication; Baggage x ray machines (lease to include maintenance); Develop IT network to link all border posts – estimate US\$150,000 under OIRSA regional project Develop compliance promotion campaign and communication supporting materials to address illegal movements
Year 2	complete staffing and training of new personnel implement compliance promotion campaign
Year 3 - 5	ongoing training and compliance promotion
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training of new border inspection personnel and supervisors
Communication (III.1)	develop materials and campaign for compliance promotion
Consultation (III.2)	engage stakeholders as part of compliance promotion campaign
Official representation (III.3)	use international contacts to seek ideas on efficient border inspections
Procedures	amend SOPs if required
Information management	develop IT network linking all border posts and HQ

II.4. Quarantine and border security

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :	20				
	International expertise (Nb of Man-Weeks) :	2				
2- Continuing education to level	Public sector (No. sessions 1 week)	2	2	2		
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables	80000	80000	80000	80000	80000
	Contingency funds					
7- Premises investments	Renovation of premises (in m²) :					
	Building construction (in m²) :	133	400			
8- Technical investments	Technical equipment	45000	76000	9000		
	Data management - Softwares	150000				
	Telecommunication Unit (No.) :	9				
	Desk IT units (No.) :	6	5			
	Motocycles (No.) :					
	Cars (No.) :	5	3			
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :	10	10	10	10	10
	Veterinary para-professional (No.) :	40	50	60	60	60
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost	11 330	16 330	12 340		
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	46 080	122 880	168 960	168 960	168 960
	Fuel for 4x4 vehicles (No. of km) :	-	-	-	-	-
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2	112	245	645	645	645
9- Equipment:	Telecommunication Units (No.) :	6	15	15	15	15
	Office technology unit (No.) :	9	15	20	20	20
	Motocycles (No.) :					
	Cars (No.) :	3	8	11	11	11
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment	30 000	75 000	151 000	160 000	160 000
10- Contingency funds	Allocation to compensation and emergency funds					

II.5. Epidemiological surveillance

II.5.A. Passive epidemiological surveillance

1. Specific objective	
<i>The VS have the authority and capability to determine, verify and report on the sanitary status of the animal populations under their mandate.</i>	
2. Result / Expected level of advancement:	
3. The VS conduct passive surveillance 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 on 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.	
3. Key issues and strategy of the activity	
Description of the activity	Conduct passive surveillance for rabies, vesicular diseases (also some active), BSE (also some active), scrapie, TB (at slaughterhouse) and through export testing for bovine TB & brucellosis
Link with national priorities:	VS1,2,3 LD1, AH0, 1, 2 VPH3
Strategy of the activity	Passive surveillance on slaughtered animals for TB. Rapid test on slaughtered animals and symptomatic animals for BSE (US\$ 2000, in consumables per year). Rabies: passive surveillance by investigation of approx. 12 cases year (Half day per 2 technicians per case) 2400 US\$ for sample shipment. Investigate suspected vesicular diseases cases (6 cases year average) half day investigation per case by a veterinarian
Objectively verifiable indicators	Results obtained (reports, findings)
4. Tasks and time frame	
Year 1	Passive surveillance on slaughtered animals for TB Surveillance transport costs: 6 (4x4) and fuel for export testing and movement control points Continue surveillance for CSF, rabies & vesicular diseases Design a scrapie surveillance programme
Year 2	continue surveillances year 1 implement new scrapie surveillance programme
Year 3 - 5	continue surveillance
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	
Legislation (IV.1, 2, 3)	pass regulations required for TB, BSE
Communication (III.1)	communications materials to support disease recognition and reporting
Consultation (III.2)	engagement of stakeholders to support disease recognition and reporting
Procedures	SOPs on new scrapie and other surveillance programmes
Information management	develop surveillance databases

II.5.A. Epidemiological surveillance

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :	105				
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :	7				
	Desk IT units (No.) :	7				
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :	4				
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :	2	2	2	2	2
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :	6	10	10	10	10
	Support staff (No.) :	1	1	1	1	1
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :	5 000	20 000	20 000	27 500	27 500
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km) :	64 000	192 000	192 000	192 000	192 000
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2		105	105	105	105
9- Equipment:	Telecommunication Units (No.) :		7	7	7	7
	Office technology unit (No.) :		7	7	7	7
	Motocycles (No.) :		-	-	-	-
	Cars (No.) :		-	-	-	-
	4x4 vehicles (No.) :	2	6	6	6	6
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

II.5. Epidemiological surveillance

II.5.B. Active epidemiological surveillance

1. Specific objective	
<i>The VS have the authority and capability to determine, verify and report on the sanitary status of the animal populations under their mandate.</i>	
2. Result / Expected level of advancement:	
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 for some relevant diseases and apply it to all susceptible populations but do not update it regularly.	
4. The VS conduct active surveillance for some relevant diseases, apply it to all susceptible populations, update it regularly and report the results systematically.	
5. The VS conduct active surveillance for most or all relevant diseases and apply it to all susceptible populations. The surveillance programmes are evaluated and meet the country's OIE obligations.	
3. Key issues and strategy of the activity	
Description of the activity	Following a national herd test for bovine TB and brucellosis, perform active surveillance for BSE across the cattle population; Conduct surveillance on other animal diseases (AI, ND, CSF, FMD, aquaculture); Poultry improvement programme covering salmonellosis and mycoplasmosis (for commercial breeder flocks); design an active hive surveillance programme for bee diseases and scrapie
Link with national priorities:	VS1,2,3 LD1, AH0,1,2 VPH3
Strategy of the activity	<p>Bovine:</p> <ul style="list-style-type: none"> ○ Testing of export animals for bovine brucellosis & TB: 10000 in first year, 15000 animals in the following years; ○ Rapid BSE test on slaughtered and symptomatic animals (US\$ 2000 in consumables per year) to confirm free status <p>Poultry:</p> <ul style="list-style-type: none"> ○ AI: every 3 months a sample of poultry flocks in each district to be sampled for poultry diseases Poultry improvement programme for salmonellosis, mycoplasmosis (for 16 commercial breeder flocks to be carried out in steps: define baseline, follow up). <p>Pigs: CSF, 3 days work per district (two technicians plus one vet) US\$ 4000 budget in consumables per year and confirm free status</p> <p>Aquaculture: Quarterly aquaculture surveillance (white spot plus yellow head) is conducted in 6 farms, half workday per farm, by a biologist (other profession) all paid by industry under government oversight; upgrade this surveillance programme as required to establish country freedom from White Spot, Taura syndrome and Yellow Head</p> <p>Other:</p> <ul style="list-style-type: none"> ○ Scrapie: design flock freedom surveillance programme to support export of small ruminants. ○ Hive diseases, design of programme in first year, then follow up only testing activity ○ FMD and vesicular diseases active surveillance in 10% of farms (300 farms) by technicians (10 fly technicians) at 10 farms per technician per day, Shipment costs to be budgeted in consumables US\$1200 per year ○ Confirm free status for CSF, BSE, AI
Objectively verifiable indicators	Prevalence established for the selected diseases; Protocols established; Reports on surveillance programmes
4. Tasks and time frame	
Year 1	<p>National cattle "Sweep" for brucellosis and TB (see II.7)</p> <p>Develop active surveillance plan for TB&BR</p> <p>Hire new personnel (2 veterinarians, 2 veterinary para-professionals) budgeted under II.5.A.</p> <p>Train staff - 2 days (15 people per session)</p> <p>Lab technician training abroad, 2 people each for one week on the BSE rapid test (budget included in laboratory section)</p> <p>Design a programme for Scrapie</p> <p>Design hive surveillance programme</p> <p>Begin Poultry improvement programme</p> <p>Set up surveillance programme to establish freedom at country level for fish diseases (white spot, Taura syndrome and Yellow Head); negotiate shared funding with industry 1 days consultation; international consultant in year 1 – one week</p>

Year 2 - 5	<p>Testing on exported cattle (brucellosis and TB) plus passive surveillance on slaughtered animals for TB. Rapid test on slaughtered and symptomatic animals for BSE. Continue surveillance for AI, ND, CSF, FMD, rabies, aquaculture, Scrapie, bee diseases only testing Implement scrapie and hive surveillance Poultry breeders to follow up on Poultry improvement programme</p>
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training of staff on new programmes
Communication (III.1)	communication of surveillance programmes and results
Consultation (III.2)	consultation with stakeholders on design of new programmes
Official representation (III.3)	reporting of surveillance results
Procedures	SOPs for new surveillance programmes
Information management	data bases on surveillance results

II.5.B. Active epidemiological surveillance

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days)					
	International expertise (Nb of Man-Weeks) :	1				
2- Continuing education to level	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals	2				
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
3- Continuing education	Specialization trainings					
	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :	8 600	23 600	23 600	31 100	31 100
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m ²					
9- Equipment:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

II-6. Early detection and emergency response

1. Specific objective	
<i>The VS have the authority and capability to detect and respond rapidly to a sanitary emergency (such as a significant disease outbreak or food safety emergency).</i>	
2. Result / Expected level of advancement:	
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.	
3. Key issues and strategy of the activity	
Description of the activity	Maintain an effective early detection and rapid response plan for foreign diseases plus diseases affecting trade (e.g bovine brucellosis & TB)
Link with national priorities:	VS1, VS3, LD1&LD3, AH0, AH1, AH2; VPH3
Strategy of the activity	Training in recognition of exotic diseases for extension officers and farmers to increase notification efficiency/speed Simulation exercises (with international agencies or experts as opportunities arise); increase the number of disease contingency plans with each simulation exercise (already available: CSF, FMD and AI) fund Continuing education; training can combine OIRSA and in house resources/knowledge stockpile essential consumables to avoid procurement delays BAHA veterinarians to be targeted especially for training in Incident Command Systems Encourage reporting through education of producers. Set up effective compensation strategy to encourage reporting (see I.9)
Objectively verifiable indicators	Reports of annual simulation training
4. Tasks and time frame	
Year 1	Secure appropriate funding for simulation exercises. We propose that this include annually one half week training for staff, one week of consultancy by an international expert in the disease selected for the simulation, and two days training for stakeholders) Training in the use of Incident Command Structure methods (\$5000) Stockpile consumables (20,000 year 1 as upgrade then \$5000 annual for maintenance of stock) Develop compensation policy (see I.9)
Year 2	Ensure appropriate funding Continue simulation training; 2 nd ICS training session \$5000
Year 3 - 5	Ensure appropriate funding Continue simulation training
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	develop and hold annual simulation exercises training staff and stakeholders in foreign animal disease recognition training in incident command systems
Legislation (IV.1, 2, 3)	ensure authority for compensation and contingency funding
Communication (III.1)	communication work to support disease recognition and simulation exercises
Consultation (III.2)	consult stakeholders on policies re compensation and disease control
Official representation (III.3)	link with international agencies on simulation and preparedness
Procedures	SOPs for emergency responses
Information management	information on evolving threats

II.6. Early detection and emergency response

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days)					
	International expertise (Nb of Man-Weeks) :	1	1	1	1	1
2- Continuing education to level	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses	0,1	0,1			
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables	20 000				
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :	1	1	1	1	1
	Private sector (No. of days) :	2	2	2	2	2
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :		5 000	5 000	5 000	5 000
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km) :	-	-	-	-	-
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m ²					
9- Equipment:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

II-7. Disease prevention, control and eradication

1. Specific objective	
<i>The VS have the authority and capability 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>	
2. Result / Expected level of advancement:	
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 only 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.	
3. Key issues and strategy of the activity	
Description of the activity	Establish prevalence of bovine brucellosis and TB and if required undertake to eradication measures to gain disease-free status in support of export objective (LD1). Establish other disease control measures as required (e.g. a VEE vaccination programme).
Link with national priorities:	VS1,2,3 LD1, AH0,1,2 VPH3
Strategy of the activity	<p>Perform a national “sweep” (test of national cattle herd) to calculate the prevalence of TB and brucellosis</p> <p>Develop and implement policies for:</p> <ul style="list-style-type: none"> ○ Follow up testing, herd quarantine and culling of reactors. ○ Possible herd depopulation (depending on herd size and prevalence). ○ Set up movement controls points at four strategic locations. ○ Compensation (see I.9) <p>VEE vaccination as required- owner education, vaccination by private vets, emergency vaccination in face of outbreaks with funds from GoB or intl donors</p> <p>Public communication on rabies, CSF, VEE, AI etc. (\$US 2000 per year for pamphlets, etc)</p>
Objectively verifiable indicators	results of national “sweep”; recognition by importing countries of acceptable TB and brucellosis-prevalence to allow trade in cattle for slaughter; other disease control actions taken
4. Tasks and time frame	
Year 1	<p>Perform “sweep” test of the national herd to calculate the prevalence of TB and brucellosis using 12 Mexican and 6 Belizean accredited veterinarians</p> <p>Bring cattle identification system into use in collaboration with MAF; enter information into the established database</p> <p>Engage and international consultant to assist with the design of brucellosis and TB disease control and surveillance policies (4 weeks)</p> <p>Consultation with stakeholders (4 days) on the new testing programs and policies</p> <p>Training of BAHA and accredited personnel in herd testing and disease control measures (1 week staff, 2 days accredited professionals)</p> <p>Follow up testing, herd quarantine and culling of reactors.</p> <p>Possible herd depopulation (depending on herd size and prevalence; estimate 200 cattle x US\$ 280 first year; total after 5 years US\$ 5000).</p> <p>Set up movement controls points for disease control at two strategic locations</p> <p>VEE vaccination as required- owner education, vaccination by private vets, emergency vaccination in face of outbreaks with funds from GoB or international donors</p>
Year 2	<p>Follow up testing, herd quarantine and culling of reactors. Ongoing staff costs.</p> <p>Possible herd depopulation (depending on herd size and prevalence).</p> <p>Maintain movement controls points at four strategic locations. plus 10,000 in each of yrs 2 and 3 for</p>

	communicatons (IDB project) consultation with stakeholders 2 days
Year 3 - 5	continue control/eradiation measures if required
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training or personnel in herd testing and disease control measures
Legislation (IV.1, 2, 3)	TD regulations
Communication (III.1)	communications re disease control programmes
Consultation (III.2)	consult stakeholders on disease control policies
Official representation (III.3)	report progress and seek recognition for disease free status
Procedures	SOPs for herd testing and disease control measures
Information management	database for cattle identification

II.7. Disease prevention, control and eradication

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days)					
	International expertise (Nb of Man-Weeks) :	4				
2- Continuing education to level	Public sector (No. sessions 1 week) :	1				
	Private sector (No. of days) :	2				
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :	277				
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
3- Continuing education	Specialization trainings					
	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)	4	2	2	2	2
5- Communication	Communication media and tools: No. x cost	2 000	12 000	12 000	2 000	2 000
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :	343 627				
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km) :	192 000	128 000	128 000	128 000	128 000
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities	433 200				
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2		277	277	277	277
9- Equipment:	Telecommunication Units (No.) :		-	-	-	-
	Office technology unit (No.) :		-	-	-	-
	Motocycles (No.) :		-	-	-	-
	Cars (No.) :		-	-	-	-
	4x4 vehicles (No.) :	4	4	4	4	4
	Other transport vehicles (No.)		-	-	-	-
	Estimated costs of acquiring technical equipment		-	-	-	-
10- Contingency funds	Allocation to compensation and emergency funds	56 000	20 000	10 000	5 000	5 000

II-8. Veterinary public health and food safety

1. Specific objective	
<i>The VS have the authority and capability to implement, manage and coordinate veterinary public health measures, including programmes for the prevention of specific foodborne zoonoses and general food safety programmes.</i>	
2. Result / Expected level of advancement:	
3. Management, implementation and coordination are generally undertaken in conformity with international standards only for export purpose and for products that are distributed throughout the national market.	
4. Management, implementation and coordination are generally undertaken in conformity with international standards for export purpose and for products that are distributed throughout the national and local markets.	
5. Management, implementation and coordination are undertaken in full conformity with international standards for products at all levels of distribution (throughout the national and local markets, and direct sales).	
3. Key issues and strategy of the activity	
Description of the activity	Maintain level 3 for inspection of slaughterhouses, dairy and fish plant and high seas fishing vessels, and collaborate with MoH to establish veterinary ante- and post-mortem inspection in order to extend disease surveillance to municipal slaughter plants that are inspected by public health officers
Link with national priorities:	VS1, LD1, AH0,1,2, VPH1,3
Strategy of the activity	<p>Increase staff for meat inspection at slaughterhouses from 6 to 10 inspectors plus two veterinarians.</p> <p>BAHA also needs to provide veterinary supervision at small municipal slaughter points to collect surveillance information; for this it is needed to pass the BAHA Biosecurity Bill to gain the required authority and to hire 3 additional inspectors in year 2.</p> <p>A new fishery establishment to be opened requires inspection to establish HACCP and perform follow up inspections.</p> <p>Inspection of 7 high seas fishing vessels requires a dedicated unit (one professional plus one technician) to be created to check HACCP applications; 5 working days needed per vessel.</p> <p>Stakeholder consultations to be engaged to promote on-farm food safety practices</p> <p>Communications to stakeholders and the public to promote food safety</p>
Objectively verifiable indicators	staff numbers increased to required levels agreement between BAHA and MoH
4. Tasks and time frame	
Year 1	<p>Hiring necessary meat inspection staff – e.g. increase to 10 techs from 6 for plants currently covered plus 3 new inspectors for the plants inspected by Public Health (1 north, 2 south)</p> <p>Train public health inspectors of MoH to meet BAHA requirements for disease surveillance</p> <p>Training for new BAHA staff and upgrade training for existing staff</p> <p>Training abroad: specialisation course in Japan (sanitation) paid by Japan</p> <p>Training twice a year for meat, aquaculture and bees</p> <p>Creation of unit to be dedicated to the inspection of high seas fishing vessels</p> <p>Stakeholders consultations re on-farm food safety</p>
Year 2	<p>Follow up training of Public Health inspectors</p> <p>Continue refresher training courses</p> <p>Further training abroad (specialisation courses – meat inspection)</p> <p>Continue specialisation course in Japan (sanitation) paid by Japan</p> <p>Continue training twice a year for meat, fish from aquaculture and honey (residues and sanitation)</p> <p>Ongoing stakeholders consultations and</p> <p>Communications to stakeholders and to the public to promote food safety \$11,000 (IDB)</p>
Year 3	<p>Continue specialisation course Japan (sanitation)</p> <p>Continue training twice a year for meat, aquaculture and honey</p> <p>Ongoing stakeholders consultations</p> <p>Communications continued (public awareness) \$24000 (IDB)</p>
Year 4 - 5	<p>Continue specialisation course Japan (sanitation)</p> <p>Plus training twice a year for meat, aquaculture and honey</p> <p>Ongoing stakeholders consultations and communications 12,000 (IDB)</p>

5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training for new and existing staff (see strategy)
Legislation (IV.1, 2, 3)	Enact new BAHA legislation
Communication (III.1)	Public and stakeholder education on food safety
Consultation (III.2)	Stakeholder consultations re on-farm food safety
Official representation (III.3)	Maintain relations with donor countries (eg Japan) and trading partners
Procedures	SOPs for new and improved inspection roles (e.g. for disease reporting by PH inspectors)
Information management	data on disease surveillance at slaughter points

II.8. Veterinary public health and food safety

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week)	2	2			
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses	0,2	0,3			
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :	10	3			
	Motocycles (No.) :					
	Cars (No.) :	2				
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :	2	2	2	2	2
	Other university graduates (No.) :	1	1	1	1	1
	Veterinary para-professional (No.) :	10	13	13	13	13
	Support staff (No.) :	6	6	6	6	6
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :	2	2	2	2	2
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)	6	6	6	6	6
5- Communication	Communication media and tools: No. x cost		11 000	24 000	12 000	
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	76 800	107 520	107 520	107 520	107 520
	Fuel for 4x4 vehicles (No. of km) :	-	-	-	-	-
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipement:	Telecommunication Units (No.) :					
	Office technology unit (No.) :		10	13	13	13
	Motocycles (No.) :					
	Cars (No.) :	5	7	7	7	7
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

II-9. Veterinary medicines and veterinary biologicals

1. Specific objective	
<i>The VS have the authority and capability to regulate veterinary medicines and veterinary biologicals.</i>	
2. Result / Expected level of advancement:	
2. The VS have only limited capability to exercise administrative control (including registration) over the usage, including import and production, of veterinary medicines and veterinary biologicals.	
3. The VS exercise quality control (technical standards) over the import, production and distribution of veterinary medicines and veterinary biologicals.	
4. The VS exercise complete control over registration, sale and usage of veterinary medicines and veterinary biologicals.	
5. The VS implement systems to monitor the use of veterinary medicines, veterinary biologicals and their side effects (pharmacovigilance).	
3. Key issues and strategy of the activity	
Description of the activity	Establish an inspection programme to control veterinary drugs market; add a dedicated inspector Apply SI #184 of 2001 (Veterinary Drugs and Animal Feed Regulation and Control) to enforce proper control of veterinary drugs sale Improve quality control on newly registered drugs Set up a list of drugs requiring control through prescriptions
Link with national priorities:	VS2, VS3, LD1,LD3,VPH2
Strategy of the activity	Develop strategy to promote compliance with and to enforce regulations to improve control and distribution of veterinarians down to the retail and user levels. Inspect retail sector by a newly hired veterinary para-professional under veterinary supervision (one technician travelling for 20000 km per year) Provide stakeholder and public education (consultation and compliance promotion): 6 days yr 1, 2 days ongoing yrs 2-5 Create lists of vet drugs (prescription, over counter, restricted) Cross-link to training programme to regularize irregular practitioners (regularization project); Improve quality oversight for the most used drugs (IVOMEC, Anabolics) - hire external consultants for drugs and biologics (one week per each for biologics and drugs) to review law and advise on systems and testing strategies that could be used
Objectively verifiable indicators	Compliance promotion and enforcement strategy developed and phased-in; Programme established to improve quality control
4. Tasks and time frame	
Year 1	Develop a compliance promotion and enforcement strategy to improve control of drug distribution down to the retail and user levels (local consultant 20 days) to liaise with the other local consultant assigned to study control of irregular practitioners 6 days stakeholder consultation for enforcement strategy Hire a veterinary para-professional for inspection of retail outlets Develop a strategy to oversee quality of imported drugs and biologicals. Consider capacity of doing it, budget for the activity and expertise available or needed – including labs; budget external consultant both for drugs and biological (1 working week each).
Year 2	Implement compliance promotion and enforcement actions established under the consultancy 2 days stakeholder consultation on progress Training in vet biologic registration for the veterinarian holding the responsibility (approx US\$10,000)
Year 3 - 5	Continue implement compliance promotion and enforcement actions 2 days stakeholder consultation on progress
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training in drug/vaccine registration
Legislation (IV.1, 2, 3)	new investigation/enforcement unit (IV.2)
Communication (III.1)	communication will be part of compliance promotion and enforcement plans (fund from II.8)
Consultation (III.2)	Consult stakeholders
Procedures	SOPs for enforcement
Information management	data on drug distribution and enforcement actions

II.9. Veterinary medicines and veterinary biologicals

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :	4				
2- Continuing education to level	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses		0,2			
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :	15				
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :	1				
	Desk IT units (No.) :	1				
	Motocycles (No.) :					
	Cars (No.) :	1				
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :	1	1	1	1	1
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :		15 360	15 360	15 360	15 360
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2		15	15	15	15
9- Equipment:	Telecommunication Units (No.) :		1	1	1	1
	Office technology unit (No.) :		1	1	1	1
	Motocycles (No.) :					
	Cars (No.) :		1	1	1	1
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

II-10. Residue testing

1. Specific objective	
<i>The VS have the capability to undertake residue testing programmes for veterinary medicines (e.g. antimicrobials and hormones), chemicals, pesticides, radionuclides, metals, etc.</i>	
2. Result / Expected level of advancement:	
Some residue testing programmes are performed but only for selected animal products for export.	
A comprehensive residue testing programme is performed for all animal products for export and some for domestic consumption.	
A comprehensive residue testing programme is performed for all animal products for export and/or domestic consumption.	
The residue testing programme is subject to routine quality assurance and regular evaluation.	
3. Key issues and strategy of the activity	
Description of the activity	Plan and implement a residue testing programme for all commodities of animal origin including honey
Link with national priorities:	LD1,VPH2, LD2
Strategy of the activity	Develop testing capacity; consider partnership possibilities with pesticides lab and any other regional programmes Implement existing residue programme: sampling plan, by applying to other commodities in addition fish Communicate the results to stakeholders Increase lab expertise to analyse samples, increase lab staff and procure lab equipment.(see II.1) and allocate US\$10000 for each of the first two years training of staff including accreditation of laboratory
Objectively verifiable indicators	residue testing programme established for all commodities
4. Tasks and time frame	
Year 1	Develop sampling and testing programme including accreditation of laboratories Consider whether to do in house testing or purchase testing abroad; carry out cost benefit study; consider total amount of samples per year, equipment, structure and expertise. Consider possible regional collaboration. Calculate 10 days consultancy for the study. Hire more staff for lab (see II.1) Training of lab personnel - US\$ 10000 for specialized training Procure laboratory support as described above under II.1
Year 2	Continue sampling and testing Start communicating results Continue developing lab capacity (US\$10000 for training) Hire more staff for lab (see II.1 – propose 1 more chemist and 1 more tech)
Year 3 - 5	Continue sampling, testing and communicate results
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training of lab personnel
Legislation (IV.1, 2, 3)	Enact new BAHA Act to secure food safety mandate
Communication (III.1)	communicate results of the residue monitoring
Consultation (III.2)	engage stakeholders on findings and costs
Procedures	SOPs for laboratory tests
Information management	Laboratory data management

II.10. Residue testing

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :	10				
	International expertise (Nb of Man-Weeks) :	2				
2- Continuing education to level	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses	0,2	0,2			
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.)					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.)					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipment:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

II-11. Emerging issues

1. Specific objective	
<p><i>The VS have the authority and capability 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>	
2. Result / Expected level of advancement:	
<p>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, animal welfare and environment) on emerging issues.</p>	
<p>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, animal welfare and environment) on emerging issues.</p>	
<p>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.</p>	
3. Key issues and strategy of the activity	
Description of the activity	Maintain level 3 including appropriate attention to animal welfare, environmental sustainability and wildlife diseases as emerging issues
Link with national priorities:	VS1, VS2, LD1, LD2, LD3
Strategy of the activity	Promote OIE standards and best practices on animal welfare and environmentally sustainable production; disease surveillance to include possible new wildlife/livestock disease issues.
Objectively verifiable indicators	codes of practices on animal welfare and sustainable production wildlife diseases addressed under surveillance strategies
4. Tasks and time frame	
Year 1	Collaborate with stakeholders to develop stakeholder and public awareness on animal welfare and environment/wildlife diseases; invite international experts to raise awareness (2 for one week each)
Year 2	Promote development of codes of practice (two consultants two weeks each) in collaboration with stakeholders including MAF and Environment Department; budget US\$ 5000 to print codes of practice
Year 3 - 5	Promote implementation of codes of practice
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	invited experts to raise stakeholder and public awareness
Communication (III.1)	communication around invited experts
Consultation (III.2)	engage stakeholders in developing codes of practice
Procedures	codes of practice
Information management	wildlife disease surveillance

II.11. Emerging issues

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :	2	4			
2- Continuing education to level	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication			5000			
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipment:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

II-12. Technical innovation

1. Specific objective	
<i>The VS have the capability 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>	
2. Result / Expected level of advancement:	
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.	
3. Key issues and strategy of the activity	
Description of the activity	Maintain level 2
Link with national priorities:	All
Strategy of the activity	Continue information gathering through use of professional networks and the internet
Objectively verifiable indicators	
4. Tasks and time frame	
Year 1 - 5	Continue networking and internet access to information
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	Continue professional networking and use of the internet to access information
Communication (III.1)	
Consultation (III.2)	
Information management	

III-1. Communication

1. Specific objective	
<i>The VS have the capability 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>	
2. Result / Expected level of advancement:	
2. The VS have informal communication mechanisms.	
3. The VS maintain an official contact point for communications but they are 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.	
3. Key issues and strategy of the activity	
Description of the activity	Create a communication unit at the central level and upgrade the internet site
Link with national priorities:	VS3, LD1, AH0-1-2, VPH2-3
Strategy of the activity	This cross-cutting activity supports most of the critical competencies.
Objectively verifiable indicators	High quality website with performance measures; Communication unit is staffed and operating (annual reports); Communication products
4. Tasks and time frame	
Year 1	staff a new communications unit review and upgrade of existing website by a web designer (local expertise 20 days) and in consultation with stakeholders (2 days) purchase of specialised printing equipment (US\$25000)
Year 2 - 5	maintenance of the communication system
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Consultation (III.2)	engage stakeholders on upgrade of the web site to ensure their needs are considered

III.1. Communications

<i>Means required to upgrade competence</i>		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :	20				
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals	2				
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :	30				
8- Technical investments	Technical equipment	25000				
	Data management - Softwares					
	Telecommunication Unit (No.) :	2				
	Desk IT units (No.) :	2				
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
Other transport vehicles (No.)						
<i>Means needed for operational requirements (not covered in chap.1)</i>		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :	1	1	1	1	1
	Veterinary para-professional (No.) :					
	Support staff (No.) :	1	1	1	1	1
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km) :	-	-	-	-	-
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
Foreign travels (No. of trips)						
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2		30	30	30	30
9- Equipment:	Telecommunication Units (No.) :		2	2	2	2
	Office technology unit (No.) :		2	2	2	2
	Motocycles (No.) :		-	-	-	-
	Cars (No.) :		-	-	-	-
	4x4 vehicles (No.) :		-	-	-	-
	Other transport vehicles (No.)		-	-	-	-
	Estimated costs of acquiring technical equipment		25 000	25 000	25 000	25 000
10- Contingency funds	Allocation to compensation and emergency funds					

III-2. Consultation with stakeholders

1. Specific objective	
<i>The VS have the capability to consult effectively with stakeholders on VS activities and programmes, and on developments in animal health and food safety.</i>	
2. Result / Expected level of advancement:	
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.	
3. Key issues and strategy of the activity	
Description of the activity	Develop stakeholder feedback and participation mechanisms
Link with national priorities:	In particular VS3, LD3, AH1-2, VPH2-3 ;
Strategy of the activity	Build capacity for stakeholder participation as other competencies are developed, for example: engage stakeholders in a review as part of web site upgrade (III.1) in year 1 seek stakeholder feed back on experience with Mexico equivalency agreement, traceability and export strategy (year 3), and engage stakeholders in year 5 to review BAHA/VS in final year of IBD investments
Objectively verifiable indicators	Outputs from above mentioned review/feed back sessions, including actions taken
4. Tasks and time frame	
Year 1	Review and upgrade of existing website by a web designer and in consultation with clients (see III.1 for resources)
Year 2	Implement findings of website review
Year 3	Review of the experience with Mexico equivalence agreement and traceability programme to identify lessons learned and future opportunities, with stakeholders (see IV.5 for resources)
Year 4	Implement findings of export and traceability experiences
Year 5	Review overall progress of BAHA and IDB project (budget international consultant 4 weeks and local consultant for two months; plus add time for stakeholder consultations; 3 one day sessions)
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Communication (III.1)	website review
Consultation (III.2)	consultations with stakeholders in years 1, 3 and 5 (see above)

III.2. Consultation with stakeholders

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					40
	International expertise (Nb of Man-Weeks) :					4
2- Continuing education to level	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					3
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)	2	2	2	2	2
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km) :	-	-	-	-	-
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
Foreign travels (No. of trips)						
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipment:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Estimated costs of acquiring technical equipment						
10- Contingency funds	Allocation to compensation and emergency funds					

III-3. Official representation

1. Specific objective	
<i>The VS have the capability 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>	
2. Result / Expected level of advancement:	
3. The VS participate actively in the majority of relevant meetings.	
4. The VS consult with stakeholders and take into consideration their opinions in providing papers and making interventions in relevant meetings.	
5. The VS consult with stakeholders to ensure that strategic issues are identified, to provide leadership and to ensure coordination among national delegations as part of their participation in relevant meetings.	
3. Key issues and strategy of the activity	
Description of the activity	The VS will participate actively in global and regional meetings of OIE, Codex, SPS and in regional meetings of OIRSA, IICA and PAHO
Link with national priorities:	All
Strategy of the activity	Build knowledge and relationships to advance the interest of Belize (see IV.3, 4, 5)
Objectively verifiable indicators	Report for each meeting attended identifying follow up actions
4. Tasks and time frame	
Year 1 - 5	Participate in 3 global meetings (OIE, Codex, SPS) and 4 Regional meetings (OIRSA, PAHO, IICA, OIE).
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	participation in international and regional training events (resources under relevant competencies)
Communication (III.1)	communication to stakeholders regarding activities with the various agencies
Consultation (III.2)	Consultation with stakeholders regarding activities with the various agencies
Procedures	harmonization of procedures with international standards
Information management	management of disease reporting information

III.3. Official representation

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.) :					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)	7	7	7	7	7
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m ²					
9- Equipement:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

III-4. Accreditation / authorisation / delegation

1. Specific objective	
<i>The public sector of the VS has the authority and capability to accredit / authorise / delegate the private sector (e.g. private veterinarians and laboratories), to carry out official tasks on its behalf.</i>	
2. Result / Expected level 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.	
3. Key issues and strategy of the activity	
Description of the activity	Develop accreditation/delegation programmes for animal health regulatory field services suited for delegation to level three within the next 5 years, including an audit capacity to be initiated by the end of the five year period.
Link with national priorities:	VS1, VS3, LD1, AH0-1-2, VPH3
Strategy of the activity	Accredited veterinarians will be used for a test of the national cattle herd under the Mexico equivalence agreement, and in future for other delegated official activities
Objectively verifiable indicators	regulations authorizing the use of accredited veterinarians and veterinary para-professionals policies and SOPs for accreditation and supervision of accredited veterinarians list of accredited private practitioners and veterinary para-professionals
4. Tasks and time frame	
Year 1	Pass required regulations Prepare SOPs and list of accredited veterinarians and veterinary para-professionals Develop audit capacity in BAHA, one professional and one support staff (budgeted under I.1) and provide training (budgeted under I.2A) Implement programme for cattle sweep
Year 2	Expand programme to other activities
Year 3	continue implementation
Year 4	continue implementation
Year 5	conduct first audits
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training of BAHA personnel and accredited personnel
Legislation (IV.1, 2, 3)	regulations that may be required
Communication (III.1)	communications to stakeholders and accredited veterinarians about the programme
Consultation (III.2)	consultations with stakeholders and accredited veterinarians about the programme
Procedures	SOPs governing work of accredited personnel
Information management	register of accredited personnel

III.4. Accreditation/authorisation/delegation

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week)	1	1			
	Private sector (No. of days) :	1	1			
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.) :					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m ²					
9- Equipement:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

III-5. Veterinary Statutory Body

1. Specific objective	
<i>The Veterinary Statutory Body is an autonomous authority responsible for the regulation of the veterinarians and veterinary para-professionals. Its role is defined in the Terrestrial Code.</i>	
2. Result / Expected level of advancement:	
3. The Veterinary Statutory Body regulates veterinarians and veterinary paraprofessionals only within certain sectors of the VS (e.g. public sector but not private sector veterinarians).	
4. The Veterinary Statutory Body regulates veterinarians and veterinary paraprofessionals throughout the VS.	
5. The Veterinary Statutory Body is subject to evaluation procedures in respect of autonomy, functional capacity and membership representation.	
3. Key issues and strategy of the activity	
Description of the activity	Develop and implement a strategy to enforce the Veterinary Surgeons Act to eliminate illegal practice of veterinary medicine, and build continuing education capacity for the VSB
Link with national priorities:	VS2, VS3, LD1, AH0-1-2, VPH2
Strategy of the activity	<p>Address illegal practices by:</p> <ul style="list-style-type: none"> ○ Seeking legal advice on enforcement of the Vet. Surgeons Act. (Determine who is responsible) ○ Developing a strategy to bring irregular practitioners (approximately 30 people) under veterinary control (training, supervision, incentive) and define what functions a veterinary para-professional can carry out - local expertise to be considered and budgeted (10 days consultancy plus further 10 days, in coordination with veterinary drugs control). Establish a registry for them under the independent authority of the VSB. ○ Developing a training programme (in collaboration with local training institution) for irregular practitioners to qualify for registration by the Veterinary Surgeon's Board of Belize as veterinary para-professionals. Estimate 30 trainees at 8 days each in year 3, plus 12 days in y 4, and 16 days in y 5. ○ Action to enforce the Veterinary Act and laws on veterinary drugs <p>In collaboration with the VSB develop a continuing education programme starting with a newsletter and invited speakers/conferences and evolving over time to a more formal programme with requirements for participation; seek funds from members and sponsors</p>
Objectively verifiable indicators	Strategy documented; Training programme; Enforcement activities
4. Tasks and time frame	
Year 1	Research enforcement authority and develop a strategy including a job description for licensed veterinary para-professionals (to define what functions a veterinary para-professional can carry out) Consult veterinarians and irregular practitioners (budget for 4 days consultation) Offer initial continue education opportunities for licensed veterinarians
Year 2	Develop a training programme in collaboration with local training institution (budget for a consultant estimated 40 days to develop training programme for irregular practitioners); use regional models for training Offer enhanced continuing education opportunities for licensed veterinarians Begin registration of a new group of veterinary para-professionals (the former irregular practitioners)
Year 3	Continue education of previously irregular practitioners and start enforcement Offer enhanced continuing education opportunities for licensed veterinarians
Year 4 - 5	As year 3 Consider making continuing education compulsory for licensing
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	VSB to develop and to eventually make mandatory a continuing education programme for its members
Legislation (IV.1, 2, 3)	control of vet drugs II.9
Communication (III.1)	communications to stakeholders and irregular practitioners about the regularization programme"
Consultation (III.2)	consultations with stakeholders and veterinary irregular practitioners about the programme
Procedures	examinations?
Information management	register of licensed members and continuing education taken by all concerned inventory of training available

III.5. Veterinary Statutory Body

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days)	20	40			
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals	4	4			
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :			16	24	32
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipment:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

III-6. Participation of producers and other stakeholders in joint programmes

1. Specific objective	
<i>The VS and stakeholders have the capability to formulate and implement joint programmes in regard to animal health and food safety.</i>	
2. Result / Expected level of advancement:	
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.	
3. Key issues and strategy of the activity	
Description of the activity	Build on the experience of stakeholder's participation of poultry and aquaculture sectors in working with the livestock industries.
Link with national priorities:	VS3, LD1, LD3, AH1-2, VPH2-3;
Strategy of the activity	Strengthen producer consultation to level 5 as foundation to enhance stakeholder participation in programme implementation
Objectively verifiable indicators	examples of producer participation
4. Tasks and time frame	
Year 1	BLPA will fund one person in the livestock traceability unit as a producer contribution to this activity Budgets for stakeholders consultation identified here (2 days/year) as well as under other relevant competencies
Year 2	Maintain and strengthen producer participation in programme design and review
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Communication (III.1)	engagement of stakeholders in enhanced communication systems (see III.1 and III.2)
Consultation (III.2)	see enhanced engagement plan under III.2

III.6. Participation of producers and other stakeholders in joint programmes

<i>Means required to upgrade competence</i>		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
Other transport vehicles (No.)						
<i>Means needed for operational requirements (not covered in chap.1)</i>		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
3- Continuing education	Specialization trainings					
	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)	2	2	2	2	2
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km) :	-	-	-	-	-
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipment:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

IV-1. Preparation of legislation and regulations, and implementation of regulations

1. Specific objective	
<i>The VS have the authority and capability to actively participate in the preparation of national legislation and regulations, and to implement animal health and food safety regulations for animals, animal products and processes under their mandate.</i>	
2. Result / Expected level of advancement:	
3. The VS have the authority and the capability to participate in the preparation of national legislation and regulations, and to implement the resulting regulations nationally.	
4. The VS consult their stakeholders in participating in the preparation of national legislation and regulations, and in implementing regulations to meet national needs.	
5. The VS consult their stakeholders in implementing regulations to meet international trade needs.	
3. Key issues and strategy of the activity	
Description of the activity	Finalise draft regulations and legislations and enhance involvement of stakeholders in the preparation of any further legislation and regulations
Link with national priorities:	VS1, VS3 LD1, LD3, H0-1-2, VPH2-3
Strategy of the activity	Strengthen legal capacity of BAHA and engagement with stakeholders
Objectively verifiable indicators	New Belize Biosecurity Bills and regulations are brought into in force (see VS1)
4. Tasks and time frame	
Year 1	Hire staff legal Unit in BAHA Pass new law and regulations engage stakeholders (see III. 2 for plans and budget)
Year 2 - 5	engage stakeholders (see III. 2 for plans and budget)
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Legislation (IV.1, 2, 3)	see above
Communication (III.1)	see above
Consultation (III.2)	see above

IV.1. Preparation of legislation and regulations and implementation of regulations

<i>Means required to upgrade competence</i>		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :	60				
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :	4				
	Desk IT units (No.) :	4				
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :	1				
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap. 1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :	2	2	2	2	2
	Veterinary para-professional (No.) :					
	Support staff (No.) :	2	2	2	2	2
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km) :	-	32 000	32 000	32 000	32 000
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2		60	60	60	60
9- Equipment:	Telecommunication Units (No.) :		4	4	4	4
	Office technology unit (No.) :		4	4	4	4
	Motocycles (No.) :		-	-	-	-
	Cars (No.) :		-	-	-	-
	4x4 vehicles (No.) :		1	1	1	1
	Other transport vehicles (No.)		-	-	-	-
	Estimated costs of acquiring technical equipment		-	-	-	-
10- Contingency funds	Allocation to compensation and emergency funds					

IV-2. Stakeholder compliance with legislation and regulations

1. Specific objective	
<i>The VS have the authority and capability to ensure that stakeholders are in compliance with animal health and food safety regulations under the VS mandate.</i>	
2. Result / Expected level of advancement:	
2.	The VS implement a programme consisting of inspection and verification of compliance with regulations relating to animals and animal products, report instances of non-compliance, but generally do not take further action.
3.	If necessary, the VS impose appropriate penalties in instances of non-compliance.
4.	The VS work with stakeholders to minimise instances of non-compliance.
5.	The VS carry out audits of their compliance programme.
3. Key issues and strategy of the activity	
Description of the activity	Strengthen enforcement capacity in areas such as veterinary drugs distribution and the practice of veterinary medicine
Link with national priorities	VS1, VS3, VPH2
Strategy of the activity	Create an enforcement unit for BAHA (serving all programmes) composed of one investigator and one support staff Establish compliance promotion programmes that engage the regulated community and stakeholders (veterinary drug distributors, licensed and “irregular” veterinary practices)
Objectively verifiable indicators	Record of activity of the enforcement unit; documented compliance promotion initiatives; reports from inspections of drug retail establishments (see II.9)
4. Tasks and time frame	
Year 1	Hire new staff (budget under IV.1) Develop communication materials and strategies: see II.9 & III.5) US\$10000 Engage stakeholders in compliance promotion strategy
Year 2 - 5	Implement compliance promotion and enforcement plans (US\$5000)
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	SOPs and staff training materials-update to include a section on compliance programme and principles
Communication (III.1)	Engage stakeholders in compliance promotion strategy
Consultation (III.2)	Engage stakeholders in compliance promotion strategy
Procedures	enforcement SOPs
Information management	enforcement records

IV.2. Stakeholder compliance with legislation and regulations

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals	4				
5- Communication		10000				
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)		2	2	2	2
5- Communication	Communication media and tools: No. x cost		5 000	5 000	5 000	5 000
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :	-	-	-	-	-
	Fuel for saloon cars (No. of km) :	-	-	-	-	-
	Fuel for 4x4 vehicles (No. of km) :	-	-	-	-	-
	Fuel for other transport vehicles (No. of km)	-	-	-	-	-
7- Honoraries and fees for outside services	Foreign travels (No. of trips)					
	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipement:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

IV-3. International harmonisation

1. Specific objective	
<i>The VS have the authority and capability 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>	
2. Result / Expected level of advancement:	
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, and use the standards to harmonise national legislation, regulations and sanitary measures.	
3. Key issues and strategy of the activity	
Description of the activity	Increase the harmonisation of laws and regulations with international standards
Link with national priorities:	VS1, VS3, LD1, AH0-1-2, VPH1-2-3
Strategy of the activity	Strengthen participation, increase legal capacity and stakeholder engagement
Objectively verifiable indicators	Examples of harmonisation of regulations/laws
4. Tasks and time frame	
Year 1	Hiring legal staff (see IV.1) Engagement of stakeholders
Year 2 - 5	ongoing engagement (international and domestic)
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Communication (III.1)	communications to stakeholders
Consultation (III.2)	stakeholder engagement
Official representation (III.3)	Ensure adequate travel budget

IV-4. International certification

1. Specific objective	
<i>The VS have the authority and capability to certify animals, animal products, services and processes under their mandate, in accordance with the national legislation and regulations, and international standards.</i>	
2. Result / Expected level of advancement:	
3. The VS develop and carry out certification programmes for certain animals, animal products, services and processes under their mandate in compliance with international standards.	
4. The VS develop and carry out all relevant certification programmes for any animals, animal products, services and processes under their mandate in compliance with international standards.	
5. The VS carry out audits of their certification programmes, in order to maintain national and international confidence in their system.	
3. Key issues and strategy of the activity	
Description of the activity	Certification at international standards level for aquaculture existing, and cattle to Mexico in year 2, plus other commodities in future years
Link with national priorities:	VS1, VS3, LD1, AH0-1-2, VPH1, VPH2, VPH3
Strategy of the activity	Investments in surveillance and diseases control (II5-7), and training of officials (veterinarians and veterinary para-professionals) in order to allow certification for cattle to Mexico plus inform stakeholders on requirements Maintain biosecurity and other systems to support aquaculture and other export certification
Objectively verifiable indicators	Audit reports progress of surveillance and control programmes
4. Tasks and time frame	
Year 1	train personnel (1 week) and inform exporters (1 day) about requirements for export to Mexico
Year 2	train personnel inform exporters in any further requirements for export to Mexico
Year 3 - 5	ongoing maintenance of certification capacity
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training of BAHA staff, accredited personnel and stakeholders in export requirements and procedures
Communication (III.1)	communications regarding export requirements and procedures
Consultation (III.2)	consultations regarding export requirements and procedures
Official representation (III.3)	negotiations regarding export requirements and procedures
Procedures	SOPs for export requirements and procedures
Information management	records of export requirements and shipments

IV.4. International certification

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week) :	1	1			
	Private sector (No. of days) :	1	1			
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals					
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipment:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

IV-5. Equivalence and other types of sanitary agreements

1. Specific objective	
<i>The VS have the authority and capability to negotiate, implement and maintain equivalence and other types of sanitary agreements with trading partners.</i>	
2. Result / Expected level of advancement:	
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.	
3. Key issues and strategy of the activity	
Description of the activity	Actively pursue additional equivalence agreements in the Caribbean and central America
Link with national priorities:	LD1, LD2, LD3
Strategy of the activity	use of official representation meetings to develop networks and strategies work in collaboration with industry organisations to develop equivalence strategies build upon successes in aquaculture and investments/experience in cattle to Mexico
Objectively verifiable indicators	additional equivalence agreements
4. Tasks and time frame	
Year 1 - 2	ongoing maintenance of certification capacity
Year 3	review of the experience with Mexico, and identify lessons learned and future opportunities, with stakeholders (two days meeting) one week of international expert (NOTE opportunity of mid term review of IDB investment)
Year 4 - 5	Follow up on review
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Consultation (III.2)	consult stakeholders to establish priorities and strategies for additional agreements
Official representation (III.3)	negotiations for additional agreements
Information management	records on international agreements

IV.5. Equivalence and other types of sanitary agreements

<i>Means required to upgrade competence</i>		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days)					
	International expertise (Nb of Man-Weeks) :			1		
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.) :					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals			2		
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
<i>Means needed for operational requirements (not covered in chap.1)</i>		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
7- Honoraries and fees for outside services	Foreign travels (No. of trips)					
8- Premises	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
9- Equipement:	Surface area in m2					
	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

IV-6. Traceability

1. Specific objective	
<i>The VS have the authority and capability to identify animals and animal products under their mandate and trace their history, location and distribution.</i>	
2. Result / Expected level of advancement:	
2. The VS can document the history of some animals and animal products.	
3. The VS have procedures in place to identify and trace selected animals and animal products as required for disease control and food safety purposes, in accordance with relevant international standards.	
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.	
5. The VS, in cooperation with their stakeholders, carry out audits of their traceability procedures.	
3. Key issues and strategy of the activity	
Description of the activity	Develop and implement a traceability system for animals and animal products, beginning with cattle under the programme with Mexico.
Link with national priorities:	All, especially VS1, VS3 and LD1
Strategy of the activity	Build system using opportunities under the equivalence agreement with Mexico
Objectively verifiable indicators	Legislative authorities in place cattle identified and records available Documentation describing the system (farm registration etc)
4. Tasks and time frame	
Year 1	Pass regulations for identification and traceability Consultation with stakeholders on implementation (3 days) training of BAHA staff, accredited personnel, livestock owners, food processing establishments and other stakeholders in the livestock identification and traceability systems (1 week BAHA staff, 3 days industry sectors) Implement cattle identification as part of the work on a national “sweep” herd test (see II.5B) using bar coded eartags in cooperation with the MAF
Year 2	Design and implement other aspects of traceability (other commodities, including meat, meat products and other animal species) Maintain system established in year 1 Review of system: local and external consultant and stakeholders (see IV.5)
Year 3 - 5	Maintain established systems
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training of BAHA staff, accredited personnel, livestock owners, food processing establishments and other stakeholders in the livestock identification and traceability systems
Legislation (IV.1, 2, 3)	pass required regulations
Communication (III.1)	communications about the new requirements
Consultation (III.2)	consultations in design and application of the new requirements
Procedures	SOPs for identification and data gathering
Information management	records of livestock identification and movement

IV.6. Traceability

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :					
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week)	1				
	Private sector (No. of days) :	3				
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.) :					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals	3				
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m ²					
9- Equipement:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

IV-7. Transparency

1. Specific objective	
<i>The VS have the authority and capability 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>	
2. Result / Expected level of advancement:	
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.	
3. Key issues and strategy of the activity	
Description of the activity	Maintain level 4
Link with national priorities:	AH0-1-2, VPH2-3, LD1, VS3
Strategy of the activity	Capacity to report will be strengthened by investments in surveillance (see II.5B), training on epidemiology (I.2A) and traceability (see IV.6).
Objectively verifiable indicators	Timeliness and quality of reports to international bodies.
4. Tasks and time frame	
Year 1 - 5	see II.5B , I.2A and IV.6
Official representation (III.3)	improved content of reports to international agencies
Information management	enhanced quality of information

IV-8. Zoning

1. Specific objective	
<i>The VS have the authority and capability 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>	
2. Result / Expected level of advancement:	
2. As necessary, the VS can identify animal subpopulations with distinct health status suitable for zoning.	
3. The VS have implemented biosecurity measures that enable them 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 them to establish and maintain disease free zones for selected animals and animal products, as necessary.	
5. The VS can demonstrate the scientific basis for any disease free zones and can gain recognition by trading partners that they meet the criteria established by the OIE (and by the WTO SPS Agreement where applicable).	
3. Key issues and strategy of the activity	
Description of the activity	Establish zoning plan for bovine brucellosis & TB in the event a high prevalence region is uncovered in the national “sweep”
Link with national priorities:	AH0,1,2, LD1
Strategy of the activity	Consult stakeholders on zoning strategies Establish sampling units, sampling population (cross-link to work done under II.5 and II.7 for design of the “sweep”, as well as related brucellosis and TB programmes); and capacity for laboratory sampling analyses
Objectively verifiable indicators	feasible zoning strategies and preparedness documentation of zoning actions if required recognition by other countries of effective zoning
4. Tasks and time frame	
Year 1	Discuss concepts and strategies for zoning with stakeholders (2 days) Design programme (local consultant) including cost benefit analysis and funding plan including industry contributions establish movement controls – 2 shifts 2 persons per shift – and a funding plan
Year 2 - 5	maintain movement controls around any high prevalence regions if required until prevalence lowered
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Legislation (IV.1, 2, 3)	determine if any additional regulations are required
Communication (III.1)	communication regarding zoning strategies
Consultation (III.2)	consultations regarding zoning strategies
Official representation (III.3)	negotiations to ensure recognition of zones
Procedures	SOPs for movement controls
Information management	records of zoning and authorized movements

IV.8. Zoning

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days) :	20				
	International expertise (Nb of Man-Weeks) :					
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.) :					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals	2				
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehides (No.) :					
	Other transport vehicles (No.)					
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
	Foreign travels (No. of trips)					
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipement:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehides (No.) :					
	Other transport vehicles (No.)					
	Estimated costs of acquiring technical equipment					
10- Contingency funds	Allocation to compensation and emergency funds					

IV-9. Compartmentalisation

1. Specific objective	
<i>The VS have the authority and capability 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>	
2. Result / Expected level of advancement:	
2. As necessary, the VS can identify animal subpopulations with a distinct health status suitable for compartmentalisation.	
3. The VS have implemented biosecurity measures that enable them 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).	
3. Key issues and strategy of the activity	
Description of the activity	Determine the feasibility and if appropriate develop compartmentalisation strategies for fish and poultry, especially fish given value of aquaculture exports and limited number of facilities (6 farms)
Link with national priorities:	VS1, VS3, LD1, LD3, AH0, AH1, AH2
Strategy of the activity	Perform feasibility assessments and develop strategies – define compartments and methods e.g. SOPs for biosecurity (international consultant) Surveillance (see II.5.B)
Objectively verifiable indicators	effective compartmentalisation (documentation, biosecurity, etc) recognition by other countries of effective compartments
4. Tasks and time frame	
Year 1	<p>Aquaculture:</p> <ul style="list-style-type: none"> ○ Design strategies – define compartments and methods e.g. SOPs for biosecurity (international consultant) plus industry expertise (self-funded) ○ 2 days industry consultation on design, procedures and recognition ○ Surveillance (see II.5.B) ○ Seek international recognition to limit trade disruption in face of an outbreak <p>Poultry: study whether compartments could be useful in the poultry sector if and when export markets are developed</p>
Year 2 - 5	Maintain compartments and recognition
5- Cross-cutting competencies and corresponding actions (description and quantification)	
Continuing Education (I.3)	training of BAHA and industry personnel re compartmentalisation
Consultation (III.2)	engagement of industries in development and implementation of compartmentalisation strategies
Official representation (III.3)	seek recognition by importing countries
Procedures	SOPs for compartments: biosecurity, movement controls, etc

IV.9. Compartmentalisation

Means required to upgrade competence		Years				
		Y1	Y2	Y3	Y4	Y5
1- Technical and management Assistance	Local expertise (Nb of Man-Days)					
	International expertise (Nb of Man-Weeks) :	2				
2- Continuing education to level	Public sector (No. sessions 1 week)					
	Private sector (No. of days) :					
3- Qualifying education	Veterinarians (No.) :					
	Other university courses (No.) :					
	Veterinary para-professionals (No.)					
	Specialisation courses					
4- Consultation	No. of days of meeting with professionals	2				
5- Communication						
6- Other charges	Consumables					
	Contingency funds					
7- Premises investments	Renovation of premises (in m ²) :					
	Building construction (in m ²) :					
8- Technical investments	Technical equipment					
	Data management - Softwares					
	Telecommunication Unit (No.) :					
	Desk IT units (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
Other transport vehicles (No.)						
Means needed for operational requirements (not covered in chap.1)		Y1	Y2	Y3	Y4	Y5
1- Staff numbers required	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Support staff (No.) :					
2- Initial training	Veterinarians (No.) :					
	Other university graduates (No.) :					
	Veterinary para-professional (No.) :					
	Specialization trainings					
3- Continuing education	Public sector (No. sessions 1 week) :					
	Private sector (No. of days) :					
4- Consultation	Consultation with stakeholders (No. of days)					
5- Communication	Communication media and tools: No. x cost					
6- Consumables and other non stored purchases	Consumables and other non stored purchased (in the annual budget) :					
	Fuel for motorcycles (No. of km) :					
	Fuel for saloon cars (No. of km) :					
	Fuel for 4x4 vehicles (No. of km) :					
	Fuel for other transport vehicles (No. of km)					
Foreign travels (No. of trips)						
7- Honoraries and fees for outside services	Honoraria/Fees for delegated activities					
	Local expertise (No. of Man-Days) :					
	International expertise (No. of Man-Weeks) :					
8- Premises	Surface area in m2					
9- Equipment:	Telecommunication Units (No.) :					
	Office technology unit (No.) :					
	Motocycles (No.) :					
	Cars (No.) :					
	4x4 vehicles (No.) :					
	Other transport vehicles (No.)					
Estimated costs of acquiring technical equipment						
10- Contingency funds	Allocation to compensation and emergency funds					

Appendix 2. List of persons met or interviewed ⁷

Date	Name	Position	e-mail
12/04/2010	Mike Thomas	Managing Director, BAHA	
	Gabino Canto	Chief Executive Officer, MOA	
	Eugene Waight	Chief Agriculture Officer, MOA	
	Miguel DePaz	Director Animal Health, BAHA	depaz_miguel2004@yahoo.com
	Miguel Figueroa	Deputy Director Food Safety, BAHA	mikefigbz@yahoo.com
	Delilah A. Cabb	Coordinator, SPS Enquiry Point and A/Director, Human Resources, BAHA	bahasps@bti.net
	Roberto Manzanero	A/Director of Quarantine, BAHA	Manza166@yahoo.com
	Kenrick Witty	Plant Health Officer	khwitty@yahoo.com
14/04/2010	Victor Gongora	Director Animal Health, BAHA (retired)	
15/04/2010	Jose Hernandez	Self-employed veterinarian	
	Jose Lopez	Self-employed veterinarian	
	Edwardo Tesecum	Self-employed veterinarian	
	Orlando Baptist	Self-employed veterinarian	
	Jessica Tong Ho	Self-employed veterinarian	
	Amy Roches	Self-employed veterinarian	
	Ivor Burns	Self-employed veterinarian	
23/04/2010	Gabino Canto	CEO-MAFC	gabinocanto@yahoo.com 822-2330/2241
23/04/2010	Miguel DePaz	Director, Animal Health BAHA	depaz_miguel2004@yahoo.com 824-4899
23/04/2010	Miguel Figueroa	Director, Food Safety BAHA	mikefigbz@yahoo.com 620-2790/224-4794
23/04/2010	Carlos Escalante Sr.	Senior Quarantine Inspector BAHA	venycarlos@yahoo.com 803-2455
23/04/2010	Zebedec Moore Sr.	Senior Quarantine Inspector	moorezeb@yahoo.com 403-8058
23/04/2010	Andrea Budd	Animal Health Officer I BAHA	adrbaha@gmail.com 501-623-0811
23/04/2010	Donaldo Yah	Laboratory Technician BAHA	vetdiagnosticlab@yahoo.com 824-4899
23/04/2010	Joe Anthony Myers	Veterinary Officer BAHA	joe_my2003@yahoo.com 302-1388
23/04/2010	Mike Thomas	Managing Director, BAHA	mikebelmopan@yahoo.com

⁷ Date indicates first interview (many persons were interviewed on multiple occasions)

23/04/2010	Israel Pech	Senior Quarantine Inspector, BAHA	israpech@yahoo.com 804-4899
23/04/2010	Roberto Manzanero	A/Director of Quarantine, BAHA	manza166@yahoo.com
23/04/2010	Dona Dougal	BAHA	donadougal@hotmail.com 501-824-4899
23/04/2010	Edgar Palencia	BAHA	edgarp00501@yahoo.com 501-824-4899
23/04/2010	Francisco Gutierrez	BAHA	frankpest@yahoo.com 501-824-4899
23/04/2010	Melody Robateau	BAHA	lovelymel_13@yahoo.com 501-824-4899
23/04/2010	Victor Gongora	Director Animal Health, BAHA (retired)	bz.victor@gmail.com 804-3394
23/04/2010	Crispin Blanco	USDA/APHIS/IS/Belize	blancocj@state.gov
23/04/2010	Orlando Habet	Manager-Belize Poultry Association	belizepoultry@yahoo.com 501-824-3221
23/04/2010	Isaac Bergen	Caribbean Chicken	caribbeanchicken@hughes.net 323-0590
23/04/2010	Bernhard Bergen	Director Belize Poultry Association	bernhard_bergen@yahoo.com 323-0627
23/04/2010	Juan Manuel Saldivar	Embassy of Mexico	jsaldivar@embamex.bz 822-0406/2480/0210
23/04/2010	Fermin Blanco	Country Representative OIRSA	orisarep1@btl.net 822-0521
23/04/2010	Eric Bolanos L.	IICA	erick.bolanos@iica.int
23/04/2010	Wilmet Garrett	IICA	wilmet.garnett@iica.int

Appendix 3. PowerPoint presentation for the closing meeting

PVS Gap Analysis *Belize* **Final meeting**

Mission from 12/04/10 to 23/04/10

Barry Stemshorn,
Richard Pacer and
Stefano Sotgia



An international approach

- OIE standards: an international reference for Veterinary Services (VS):
- OIE-PVS tool: an evaluation framework
 - Conducted in Belize January 2008; May 2009
 - Evident progress since evaluation:
 - major investments planned (IDB, EU, IAEA, OIRSA)
 - Agreement with Mexico → possible exports
 - New laws and regulations drafted
- A tool to plan further program improvements: PVS Gap Analysis



Approach for PVS Gap Analysis

- Establish objectives and strategies
 - National priorities
 - Target appropriate levels of advancement
 - Develop strategies for each critical competency
- The organisations concerned:
 - Lead organisation (BAHA)
 - Supporting partners (MoA, MoH, Standards Bureau, NEMO...)
- Estimate resource needs over 5 years
 - Base budget to lead and coordinate programs
 - Base budget for border, field and lab operations
 - Budget for the proposed improvements



Priorities of the Veterinary Services

Livestock development priorities:

- Develop export trade
 - Live cattle to Mexico for slaughter
 - Goats (Jamaica) and sheep (Mexico) and cattle (Guatemala)
 - Processed beef and poultry (Mexico and Jamaica)
 - Aquaculture?
- Improve and diversify production (genetics, feed) and promote sustainable production systems
- Strengthen livestock producer organizations



Priorities of the Veterinary Services

Animal health priorities:

- Reduce risk of diseases spreading to other countries
- Strengthen existing programs (e.g. surveillance, aquatic health, quarantine and lab services) to support livestock development objectives
- Prevent and control exotic diseases such as FMD, CSF, AI, END and BSE



...priorities of the Veterinary Services

Veterinary public health priorities:

- Strengthen collaboration between BAHA and MoH on meat inspection (slaughter and processing)
- Strengthen control of veterinary drugs and monitoring of drug residues in foods of animal origin
- Prevent and control zoonoses such as rabies, TB and brucellosis



...priorities of the Veterinary Services

Strengthen the Veterinary Services:

- Pass/implement Belize biosecurity bills and regulations on accreditation, TB, animal identification and BSE
- Build private and/or public capacity to deliver non-official veterinary services
- Develop new units in BAHA (legal, communications, traceability, audit, investigation and enforcement)



Tools

- Sufficient and qualified human resources
- Adequate physical and financial resources
- An efficient, functional, sustainable organisation
- Sound and adequate legislation
- An effective information system
- Good management and leadership capacity



Current barriers to success

- Human and financial resources
 - too few BAHA staff (borders, field, lab, HQ)
 - limited operating funds
 - unusually high revenue dependency (fees account for approx 2/3 of total budget)
- Legal framework
 - proposed new laws and regulations not yet in effect (e.g. accreditation, traceability, TB)
 - laws/rules are not adequately applied
 - veterinary drugs regulations (illegal sales)
 - Veterinary Act (illegal practices)
 - both issues undercut development of private sector veterinary services



...current barriers to success

- Not fully prepared for TB and brucellosis control; need policies, rules, SOPs & capacity for:
 - disease control (testing, slaughter, quarantine)
 - compensation
- Laboratories
 - CIL renovations still required (no residue testing)
 - ambitious construction and equipment procurement plans
 - BAHA lacks the permanent staff, ongoing operating funds, sample submissions and maintenance capacity to fully use this investment
 - Need to rationalize lab strategies and facilities



Strategies & Priorities

1. Increase funding allocation from GoB to BAHA
 - Review funding policy and principles
 - Consider international comparisons (e.g. CFIA etc., regional)
 - GoB should fund “public goods” such as public health
 - Cross-sector trade benefits – broaden funding sources, e.g. revenues from port arrivals (tourists)?
2. Staffing to fill key gaps (borders, field, labs, HQ)
 - Significant border costs driven by tourism and trade
3. Reduce the illegal practice of veterinary medicine and strengthen control over sale of veterinary drugs – strategic approach to train and gradually control irregular “paravets”



....Strategies & Priorities

4. Pass proposed new laws and regulations
 - BAHA Biosecurity Bill (AH, FS, PH)
 - Regulations on ID, accreditation, TB, BSE
5. Develop policies on disease control and compensation, beginning with bovine TB and brucellosis
6. Plan an approach to laboratory services to maximize efficiency and effectiveness through i) an appropriate balance of in-country and out-sourced testing and ii) possible centralization and consolidation of laboratories



....Strategies & Priorities

7. Stakeholder engagement: reviews of web site (Yr1), Mexico exports (Yr3), AH program (Yr5)
8. New corporate capacities for BAHA / VS
 - Program audit and evaluation
 - Investigation and enforcement
 - Quality control (ISO standards)
 - Legal and communications
9. Continuing education – a formal program linked to BAHA goals and staff evaluations
 - include management and leadership development



Overall budget (draft)

- Current BAHA budget: 1.75 M USD / year
(includes plant health and corporate costs)
- By year 5: 3.7 M USD/year
 - (AH, FS, Quarantine, new corporate legal, QC and audit units)
 - From 8 to 18% of livestock GDP (21 M USD)
 - consider **10,000 cattle exported adds 5 M USD to GDP**
 - Budget could be 14% of livestock GDP by year 3
 - and much less as export strategy expands
 - from 2 to 3% of agricultural GDP (111 M USD)
 - Total staff costs : 2.2 M USD/year (60%)
 - Operating budget: 1.5 M USD / year



Evolution of the annual budget

Human resources

- by category of officials:
 - Professionals (veterinarians): from 6 to 8 in year 5
 - Professionals (other): from 7 to 29 in year 5
 - Technicians: from 54 to 110 in year 5

- by organizational level:
 - HQ: from 29 to 52 in year 5
 - Labs: from 7 to 14 in year 5
 - Quarantine: from 34 to 70 in year 5
 - Other field staff: from 15 to 41 in year 5



Budget for proposed improvements

The main investments for upgrades:

- Total: 2.9 M USD
- Capital: 1.9 M USD
 - Technical equipment: 0.4 M USD
 - Building upgrades: 0.6 M USD
 - IT, office and information systems: 0.4 M USD
 - Transport: 0.5 M USD
- Consumables: 0.4 M USD
- Training: 0.4 M USD
- Expertise: 0.2 M USD



Analysis of a major cost

Quarantine inspection at ports of entry

- Increase from 30 to 70 FTE
 - 20 FTE due to 4 new ports
 - 20 FTE to close gaps at 6 existing ports
- Based on coverage required at each port
- Covers more than VS and food safety (e.g. plant health)
- Accounts for 1.2 (33%) of 3.7M annual budget
- Consider funding this from GoB trade revenues, or from arrival/departure fees



Key factors for success of the program

- Increase GoB allocation to BAHA to reduce unusually high reliance on revenue from fees for service
- Use new funding to increase staff for border posts, field operations, labs and new HQ functions (audit, legal, enforcement)
- Enact proposed new laws and regulations
- Develop policies and strategies for animal disease control and compensation
- Develop strategies and enforce laws to improve control of veterinary drugs and reduce illegal veterinary practice
- Strengthen continuing education, including management and leadership training



Conclusion

- Important progress is evident
- Promising economic and trade opportunities
- Serious challenges remain:
 - IDB and other investments would be at risk without enhanced core funding for BAHA
- Some key decisions to be taken:
 - Sustainable core funding for BAHA
 - Control veterinary drugs and illegal practice of veterinary medicine



Thank you for your attention



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