PVS Pathway

PVS Gap Analysis Mission Report

Bangladesh

July 2015

Dr John Weaver (Team Leader)
Dr John Stratton, Dr John Woodford

WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future

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12 rue de Prony

F-75017 Paris, FRANCE

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LIST OF ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
BLRI	Bangladesh Livestock Research Institute
CC	Critical Competency (Card)
CDIL	Central Disease Investigation Laboratory
CVO	Chief Veterinary Officer
DG	Director General
DLS	Department of Livestock Services
FAO	Food and Agriculture Organization of the United Nations
FDIL	Field Disease Investigation laboratory
FMD	Foot and Mouth Disease
FTE	Full Time Equivalent
GDP	Gross Domestic Product
HACCP	Hazard and Critical Control Point
HPAI	Highly Pathogenic Avian influenza
HR	Human Resources
HS	Haemorrhagic Septicaemia
IHR	International Health Regulations of WHO
IATA	International Air Transport Association
LRI	Livestock Research Institute
MC	Municipal Council
MoC	Ministry of Commerce
MoF	Ministry of Food
MoFL	Ministry of Fisheries and Livestock
MoH	Ministry of Health and Family Welfare
MRL	Maximum Residue Limit
ND	Newcastle disease
OIE	World Organisation for Animal Health
OIE-PVS	OIE Performance of Veterinary Services Evaluation Tool
OTI	Officers Training Institute
PPR	Peste de Petits Ruminants
QA	Quality Assurance
SOP	Standard Operating Procedure
SPS	Sanitary and Phytosanitary Agreement of the WTO
USD	United States dollar
VRI	Vaccine Research Institute
VS	Veterinary Services
VPH	Veterinary Public Health
VSB	Veterinary Statutory Body (see OIE Code definition)
VTI	Veterinary Training Institute
WB	World Bank
WHO	World Health Organization of the United Nations
WTO	World Trade Organization

ACKNOWLEDGEMENTS

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John Weaver

John Stratton

John Woodford

EXECUTIVE SUMMARY

Under its international mandate to set international standards for animal health, the OIE has developed the Performance of Veterinary Services (PVS) Pathway. The PVS Pathway seeks to assess and then strengthen national Veterinary Services (VS). In the first stage an OIE PVS Evaluation team visits a country and assesses the strength of the Veterinary Services against critical competencies; an Evaluation Mission was conducted in Bangladesh in October 2011. In the second stage, using the Evaluation report as a baseline, a PVS Gap Analysis Mission is undertaken during which a five year strategic plan for strengthening the Veterinary Services with associated budget is developed; this budgeted strategic plan is developed in close coordination with the national VS. This is the report of the PVS Gap Analysis Mission carried out in Bangladesh from 20 -30 July 2015.

The overall assessment of the OIE PVS Evaluation Mission in 2011 was that the Veterinary Services of Bangladesh faced major challenges. The Veterinary Services were limited by inadequate infrastructure (buildings, vehicles and equipment), insufficient staff numbers and training, low budgets and poor management and planning of operations. Veterinary Services delivery was further limited by weak or out-dated legislation, poorly defined and implemented disease surveillance and disease control programmes, that were not sustainable, and limited consultation and communication with partners and stakeholders. There was no food safety programme.

Since the OIE PVS Evaluation Mission in 2011 some progress has been made in strengthening the Bangladesh Veterinary Services – however funding continues to be inadequate, policy development and programme definition and management weak and the numbers and training of veterinarians insufficient.

The PVS Gap Analysis Mission worked with the Veterinary Services:

- To determine national priorities and constraints for livestock development, veterinary public health, animal health and the operations and resourcing of the Veterinary Services
- To establish the expected levels of advancement for each critical competency, as defined by the OIE PVS tool, that should be targeted in the next five years
- To determine the strategies and activities necessary to achieve the expected levels of advancement for each of the 47 critical competencies
- To determine the means (human and physical resources) needed to enable the Veterinary Services to function effectively and reach its targets
- To develop an indicative annual operating budget and an exceptional capital budget required to achieve the proposed strategic plan over the next five years

National priorities identified for Bangladesh were:

- Livestock Development: improve food security by increasing livestock meat and dairy production and improved disease control; develop additional export markets
- Veterinary Public Health: improve food safety at slaughterhouses and along the value chain; improve the control and prudent use of veterinary medicines; develop a pilot residue control programme
- Animal Health: strengthen disease surveillance and the early detection of emergency diseases; improve control of economic and zoonotic diseases; reduce the impacts of priority animal diseases; implement a pilot traceability programme

- Management and organisation of the Veterinary Services: review the organisational structure of the Veterinary Services; improve human resources and staff capabilities; improve coordination with other ministries; increase engagement with the private sector; update legislation and strengthen regulatory activities.

Following the identification of the national priorities, the 47 critical competencies of the OIE PVS Tool were assessed and the necessary targeted level of advancement determined with a timeframe of the next five years. For each critical competency, a strategy for advancement was defined with the necessary activities. Recommendations on what indicators should be used for monitoring progress; as well as cross-cutting requirements with other competencies such as communications, training, and legislation were identified. A budget was then prepared covering required staff, equipment and operating costs; a budget for capital expenditure was developed to cover exceptional expenditure.

In summary, the plan for strengthening the Bangladesh Veterinary Services over the next five years identified the following priorities:

Veterinary services organisation and management

The current organisational structure of the Directorate of Livestock Services (DLS) with five directorates that cut across animal health and animal production, but seem to lack units dedicated to key functions such as international trade and food safety, does not allow the delivery of a coherent, coordinated veterinary service. In addition, there is a lack of clear 'chain of command' from central to field level. The current organisational structure fails to deliver a functional veterinary service with an effective Veterinary Authority and also lacks the capacity to manage international affairs and trade and adequate capacity to deliver effective animal and veterinary public health programmes.

A review of the organisational structure is already underway and this review should be concluded as quickly as possible. A suggested change to the organisational structure is included in this report (page 50). Under the proposed new structure a Directorate General of Veterinary Services would be created with five directorates – animal health, veterinary public health, international affairs and trade, research (including laboratories and vaccine production) and human resources development/planning/administration. Within each directorate, specialist departments would deliver the actual technical programmes including clinical services, disease control, food safety, the management of veterinary medicines, emergency response, epidemiology, border control, etc.

The PVS Gap Analysis team has reviewed the national priorities and it is clear that the necessary programme management and reporting is weak. To implement effective programmes in all areas senior managers' capabilities in policy development, strategic planning, budget and advocacy, operational planning, implementation and monitoring and evaluation need to be enhanced. A major commitment to the development of leadership and senior management skills is recommended. More consultation with reports and complete documentation of all planning and operations is a key requirement.

The 'chain of command' between the central Veterinary Services of DLS, and the divisions, districts, upazilas and union councils, as well as to slaughterhouses and border posts needs to become clearer with well-defined roles and responsibilities, lines of delegation and reporting.

Programme review and development

The Veterinary Services currently implement a number of animal health programmes but these programmes are not well planned, structured or regularly reviewed. Considerable investment is being made in providing vaccine and carrying out disease control programmes but vaccination coverage is too low and the only benefit is to the individual owner (private benefit); there are also concerns over vaccine quality There is no effective veterinary public health programme with no registration of slaughterhouses, no ante and post mortem inspections and little control of the distribution and use of veterinary medicines.

All current programmes should undertake formal reviews considering the priority and objectives of the programme, their cost effectiveness and sustainability and the synergies developed with other activities.

Animal Health

Animal health programmes form the core activity of any veterinary service and require an effective field animal health network and this is reflected in the large annual budget provided for this activity of USD 47 million. This amount may seem high but it is justified as this forms the core activity of the Veterinary Services and enables communication/extension activities, disease surveillance and disease control to take place. The current operating budget for animal health programmes is inadequate and is resulting in very limited field activity, weak disease surveillance, outbreak response and disease control programmes. An important component of the animal health programme is the development of an animal health information system to collate all animal health data and to allow analysis and reporting. This information system will also support programme monitoring and evaluation.

Priority disease control programmes should be identified – most likely PPR, Newcastle disease, duck plague, rabies and anthrax with consideration also of FMD. Investment in disease control should then be better planned targeting high risk populations with intensive and on-going campaigns to ensure sustainable impacts are achieved. Vaccination monitoring through animal identification and sero-surveillance should be a key component to assess effectiveness. International donor support for specific disease control programmes is acknowledged but should not distract from the national priorities. There should be increased emphasis on delivering health rather than combating disease – so multiple diseases should be controlled in target species e.g. haemorrhagic septicaemia and FMD.

Animal welfare is increasingly recognised as a priority for any country and a programme should be established in Bangladesh. This programme will require a legal mandate so the new legislation should be promulgated as soon as possible. Veterinarians and veterinary para-professionals will require training in animal welfare standards and enforcement.

Veterinary Public Health

The Bangladesh Veterinary Services have a very limited veterinary public health programme. There are currently few activities promoting food safety on farms, at slaughterhouses and at further processors and distributors, little management for the prudent use of veterinary medicines and growing concerns over residues in animal products but with no apparent scientific basis.

The first priority for the DLS, under the Ministry of Fisheries and Livestock, is to work with other relevant ministries, particularly the Ministry of Health and the Ministry of Food, to determine the roles and responsibilities of each ministry and their respective agencies. The current situation has overlapping authorities and this results in inefficient and ineffective use of resources and gaps in programme delivery.

The main focus of the veterinary public health programme over the next five years is to improve food safety. This will be achieved by implementing a programme to register 'national' slaughterhouses, that is those that supply large areas/populations, and to undertake regular supervision of animal slaughter and meat hygiene. All major slaughterhouses should be subject to on-going ante and post mortem inspections.

The PVS Gap Analysis mission was made aware of significant public health concerns over 'hormones' in meat products. There seems little credible evidence for this concern. It is recommended that a risk analysis is undertaken of likely residues that might be present and then, having identified priority chemicals and/or hormones, initial pilot baseline testing is undertaken to confirm or rule out these concerns. If these concerns are confirmed a programme of awareness and risk reduction/elimination should be implemented.

Greater veterinary control is required over the import and distribution of veterinary medicines and biologicals; the Veterinary Services, as DLS, should coordinate closely with the Bangladesh Drug Administration and with the control (registration, import/manufacture, distribution, sale/use) of veterinary products under a specialist 'veterinary section'. A database should be established to record, analyse and manage the 'veterinary medicines control programme'. Consultation and an extension campaign will be required with suppliers and end-users.

The key zoonosis in Bangladesh that requires control in the source animal population is rabies. Anthrax is also a concern in some areas and other zoonoses occur widely but their public health significance is not yet well understood. The existing rabies control programme is implemented by the Ministry of Health; DLS should take the lead in controlling diseases in animal populations.

Livestock production and trade

The primary focus to improve livestock production is to develop a strategic plan identifying the priority endemic diseases and then to establish effective and sustainable control programmes. Increasingly 'user pays' should be introduced when the benefit is primarily for 'private good'; government should support programmes with a high public good component.

A number of 'Border Inspection Posts' have already been established. With reference to the SPS agreement of the WTO, the ability to introduce sanitary measures needs to be reviewed. As India has generally the same animal health status as Bangladesh and there are no effective national disease control programmes in Bangladesh there is no rationale that justifies the establishment of any trade barriers. As effective control programmes are established then trading conditions, based on scientific evidence, can legitimately be introduced. In addition, as the cattle trade from India is not acknowledged in that country it is impossible to establish any pre-border check or controls via certification – until this situation is resolved clinical inspections can only be undertaken at the point of entry; a limited control measure. Resources are estimated to allow point of entry inspection.

Laboratories

The diagnostic laboratories are in need of upgrading and should be better utilised. The PVS Gap Analysis mission recommends a marked increase in laboratory use – for disease surveillance and early detection, to monitor disease control programmes (e.g. vaccination sero-surveillance) and to support veterinary public health programmes.

Resources and investment

The Veterinary Services of Bangladesh have been establishing upazila veterinary offices and refurbishing offices at district and divisional levels; in addition, 18 main Border Inspection Posts have been established. This building and refurbishment programme needs to be continued so that facilities are adequate at all levels of the Veterinary Services.

To supply an effective animal health field service, veterinarians and veterinary par-professionals need to have access to transport, equipment and materials. It is recommended that 7,375 motorbikes and 600 pickups /4x4 vehicles are provided.

Currently it is not possible to identify a Veterinary Services budget as it is included in the combined operations of the DLS – the total annual DLS budget in 2014 was USD 67 million. Under the proposed development programme, it is estimated that the Veterinary Services budget should be USD 59 million. This apparent reduction is as this figure excludes 'animal production activities' of the DLS – the reality is that it proposes a significant increase in funding. Though a significant increase this investment will result in increased livestock productivity, improved food security and safety and direct economic growth.

Capital investment has been made in the Veterinary Services recently and further development and improvement of buildings, facilities and equipment is required. Over the five years of the proposed investment plan it is recommended that a budget of USD 41.5

million is provided. This budget covers new buildings/building upgrades, new laboratory facilities and equipment, vehicles, border inspection post facilities and other equipment and materials. It also covers investment in databases for improved management of animal health information, staff numbers, capabilities and training and physical materials including maintenance schedules. Capital investment also covers specialist training.

Staff

Staff of the DLS are competent, professional and committed to the delivery of effective Veterinary Services but lack sufficient 'soft' skills in leadership, strategic planning, management and communications and specialist technical skills in disciplines such as epidemiology, risk analysis and food safety. A range of development programmes are recommended, including specialist training and on-going continuing education.

There is a lack of veterinary supervision at the field level and this needs to be addressed to comply with international standards, to promote public health and to facilitate exports. All upazilas should be managed by a veterinarian, with two additional veterinarians proposed to manage the area. These veterinarians will also be responsible for supervising the large number of veterinary para-professionals. The tasks to be undertaken by the veterinary para-professionals should be defined in a number of work categories and then appropriate training provided. The veterinary para-professionals' role will be strengthened by the passing of the Veterinary Professionals Act which will allow for their registration.

The programme for continuing education should be provided for all professional and technical staff.

Legislation

There are a number of important gaps in the existing legislation for compliance with OIE standards. A comprehensive review of the legislation was beyond the scope of the PVS Gap Mission, however some of the more important gaps and shortcomings of the existing legislation are provided in this report. It is recommended that a detailed review of the veterinary legislation, with respect to OIE standards be conducted through an OIE Veterinary Legislation Identification Mission.

Specific legislation issues to be addressed include the need for a more autonomous Chief Veterinary Officer position, the management of food safety, animal and animal product identification and traceability, authority over veterinary medicines and biologicals and the supervision and regulation of veterinary para-professionals.

It is recommended that the DLS should establish a Veterinary Legislation Working Group to review and revise the existing legislation and to bring it in line with OIE and other international standards. For a detailed analysis of the existing and any proposed draft legislation, it is recommended that the OIE Delegate to Bangladesh makes a formal request to the Director General of the OIE for support through the OIE Veterinary Legislation Support Programme.

Further information

More details of the strategies and activities proposed by the PVS Gap Analysis and the required budget are provided in this report.

METHODOLOGY OF THE PVS GAP ANALYSIS MISSION

I The PVS Gap Analysis process

A PVS Gap Analysis mission works with the Veterinary Services to determine the national objectives considering compliance with OIE quality standards, and national constraints and priorities. The country PVS Gap Analysis report includes an indicative annual budget and a one-off exceptional budget (for exceptional capital investments), consolidated into an indicative five-year budget for the Veterinary Services.

In practice, this means:

- Working with the national Veterinary Services to define the expected level of advancement for each of the 47 critical competencies in the OIE PVS tool at the end of the five-year period - considering the national priorities and constraints;
- Determining the activities to be carried out to achieve the expected level of advancement for each of the 47 critical competencies of the OIE PVS Tool required to achieve the national priorities of the country;
- Determining the tasks and human, physical and financial resources required to implement the identified activities to enable the Veterinary Services to meet these objectives.

I.1 Background information

An evaluation of the Veterinary Services of Bangladesh using the OIE PVS Tool for the evaluation of Performance of Veterinary Services was conducted in October 2011 by a team of independent OIE certified experts.

To understand the objectives of the country, as well as the figures presented in the PVS Gap Analysis report, it is important to consider the country context. Note that part of this information comes from the country OIE PVS Evaluation Report (2011) with updates and data acquired from other sources as referenced.

I.1.A Country details

Geography

Bangladesh is located in South Asia and bordered by India on all sides except for a small border with Myanmar to the far southeast and by the Bay of Bengal to the south. Bangladesh is in the low-lying Ganges-Brahmaputra River Delta or Ganges Delta. The alluvial soil of the delta provides some of the most fertile plains in the world. Most parts of Bangladesh are less than 12 m (39.4 ft) above the sea level. The highest point in Bangladesh is in Mowdok range at 1,052 m (3,451 ft) in the Chittagong Hill Tracts to the southeast of the country.

The land area of Bangladesh is 144,000 sq. km. with 10,090 sq. km. of water; 61% of the land is arable, 3% with permanent crops and 36% other uses (i.e. forestry).

Bangladesh has over 160 million people and with a high population growth rate at 1.39; it is one of the most densely populated countries in the world. Despite this population density, Bangladesh achieved food self-sufficiency in 2002. The country is well connected by road, rail, water and air transport and all parts of the country can be reached within 24 hours.

A revolutionary change has been made in telecommunications with the number of mobile phone subscribers estimated at 114 million (2013).

Straddling the Tropic of Cancer, the Bangladeshi climate is tropical with a mild winter from November to February, a hot, humid summer from March to June and a warm and humid monsoon season from June to October. Bangladesh is recognised as one of the countries most vulnerable to climate change.

Economy

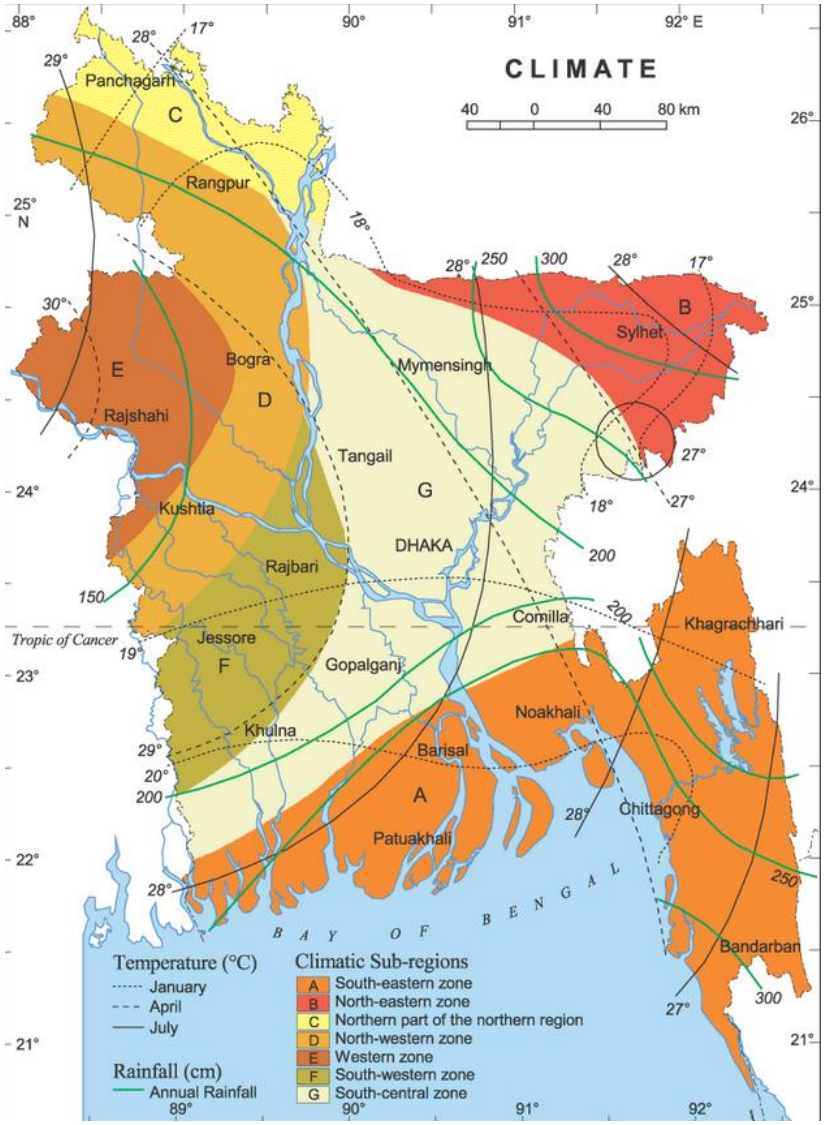
Bangladesh is a developing nation with a USD 175 billion economy and an average per capita income of USD 1,190.

The currency of Bangladesh is the taka.

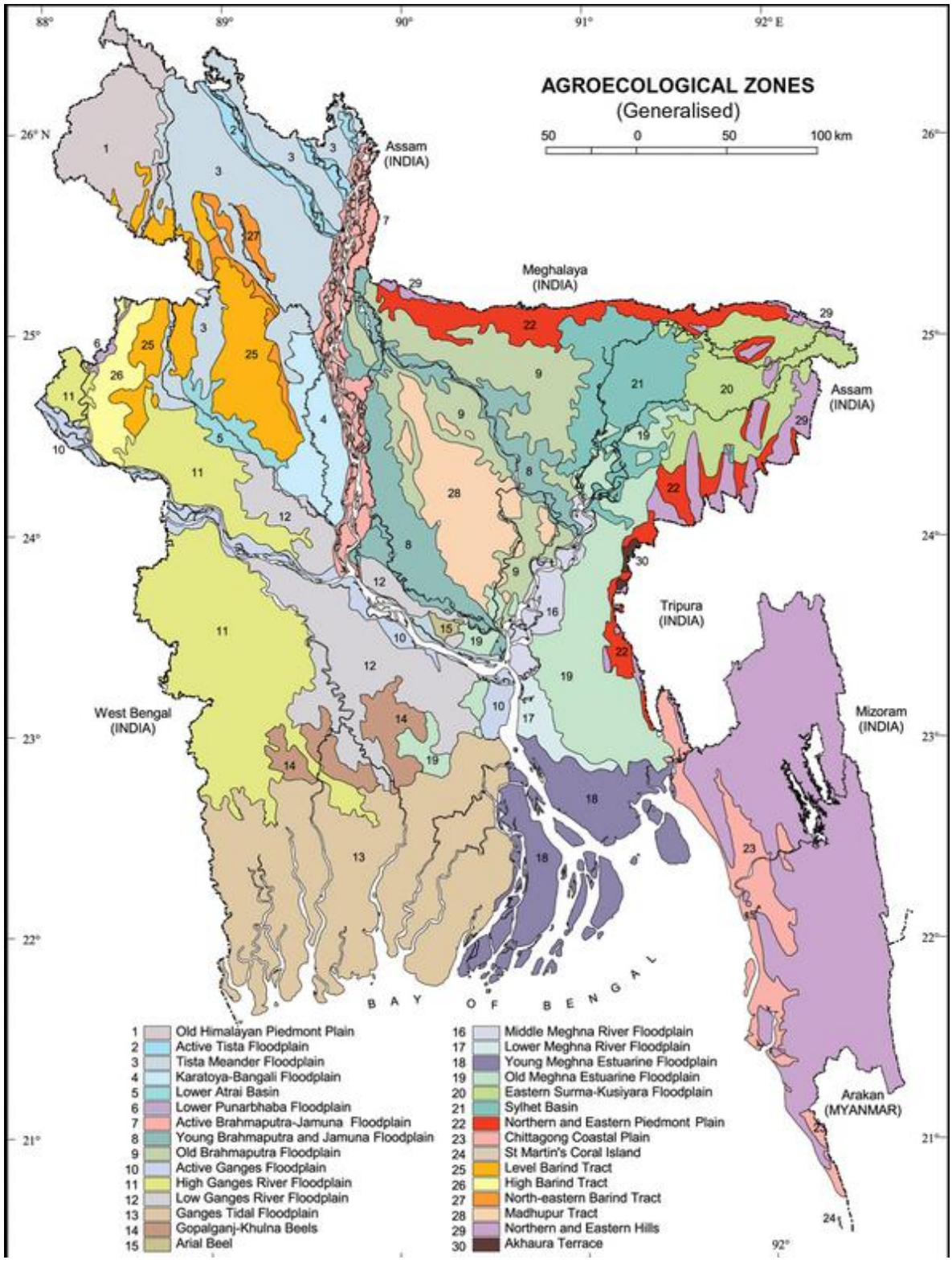
The service sector accounts for 51% of GDP, the industrial sector 30% and agriculture 18%. Bangladesh is a major agricultural producer, particularly in the global production of rice (4th), fisheries (5th), jute (2nd), tea (10th) and tropical fruits (5th). There is a large livestock industry but with only limited exports of beef and poultry.

Major other industries include textiles, pharmaceuticals, shipbuilding, steel, electronics, telecommunications, energy, fertilizer, cement, leather, food processing and ceramics. Exports were USD 30 billion (2013–14) with 70% of export earnings from the textile industry. Remittances from the Bangladesh diaspora provide important foreign exchange earnings – USD14 billion (2013-14).

Map of climatic zones (Source: DLS)



Map of Agro-Ecological Zones (Source: DLS)

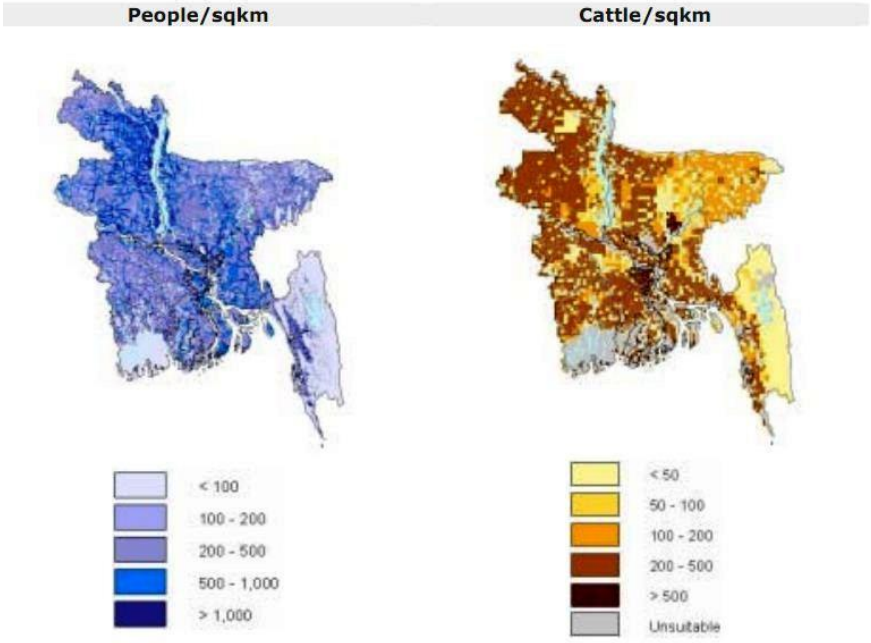


Demographic data[1]

Human population		Livestock households/farms	
Total number	163,500,000	Total number	28,712,000
Average density / km2	1,125/km^2	% intensive	Not available
% of urban	12	% agro-pastoral	Not available
% of rural	88	% extensive	Not available

Current livestock census data

Animals species	Total Number (million)	Intensive production (%)	Mixed production (%)	Extensive production (%)
Cattle	23.63	Not available	Not available	Not available
Sheep	3.27	Not available	Not available	Not available
Goats	25.60	Not available	Not available	Not available
Poultry	312.29	Not available	Not available	Not available
Buffalo	1.46	Not available	Not available	Not available
Pigs	Not available	Not available	Not available	Not available



SOURCE: FAO

[1] Baseline data is sourced from information provided in the 2011 OIE PVS evaluation report where it remains relevant. The data has been updated where updated sources could be accessed, such as from http://countrymeters.info/en/Bangladesh, a paper by Rahman et al (2014) *Livestock in Bangladesh: distribution, growth, performance and potential* at http://www.lrrd.org/lrrd26/10/rahm26173.html , the World Bank statistics http://data.worldbank.org/country/bangladesh FAO statistics http://faostat.fao.org/site/666/default.aspx or Wikipedia https://en.wikipedia.org/wiki/Bangladesh

Animal and animal product trade data

Animals and animal products	Average annual import		Average annual export	
	Quantity	Value	Quantity	Value USD
Leather/raw hides/skins	n/a	n/a	16,833,531	226,102,288
Meat and edible meat offal	n/a	n/a	34,637	2,441,644
Live animals	n/a	n/a	30	150.91
TOTAL				228,933,234

SOURCE: Exports Promotion Bureau Report; 2009-2010 www.epb.gov/bd

Economic data

National GDP	USD173 billion (2014)
National budget	USD 33.4 (2014)
Agriculture GDP	20%
Livestock GDP	2%

Livestock

Livestock are an integral component of the agricultural economy of Bangladesh performing various functions such as provisions of nutrition, income, savings, foreign currency earning (hides & skin, bone and other products), draught power, manure, fuel, transport, social and cultural functions.

To support the development of the livestock sector the 2007 National Livestock Development Policy identified the following critical policy areas: Dairy Development and Meat Production, Poultry Development, Veterinary Services and Animal Health, Feeds and Fodder Management, Breeds Development, Hides and Skins, Marketing of Livestock Products.

Bangladesh cattle are mostly reared as a component of a traditional crop-based mixed farming system or as a source of traction power and manure. In Bangladesh four types of farms are recognised: very small (less than 0.5 acre), small (0.5 to 2.0 acre), medium (2.0 to 5.0 acre), and large (above 5.0 acre). Free roaming cattle are also owned by the landless population. Bangladesh has one of the highest densities of livestock in the world – estimated at 145 large ruminants/km^2.

In Bangladesh 30% of rural households own no land other than the homestead. The average farm size is 1.5 acre. Cattle, buffalo, goats, sheep and poultry (including ducks) are an integral part of the farming system in Bangladesh. About 18% of households keep draught cattle. Milk cows are kept by about 16% of households but most own only one or two cattle. In recent years, a number of small commercial dairy and beef farms have been established, particularly in urban and peri-urban areas of Bangladesh.

The major constraints affecting the livestock productivity have been identified as: absence of appropriate breeds, shortage of quality feeds and fodder, absence of appropriate technology, inadequate veterinary coverage and technologies for disease diagnosis, treatment and control, poor/lack of epidemiological information about major livestock and poultry diseases, shortage of quality vaccines, poor/lack of strategic disease control programmes, absence of livestock live market regulations, poor/lack of preservation for livestock products and by-products and absence of an effective marketing network.

Estimated contribution of the livestock sector to the national economy

Total national income	6.5%
Full time work	20%
Part time work	50%
Nutrition (with fisheries)	80%
Draught power (agriculture)	95%
Draught power (transport)	50%
Manure produced	80 million tonnes
Organic manure production	10% of total fertiliser
Fuel supply	20%

SOURCE: http://www.banglapedia.org/httpdocs/HT/L_0115.HTM

Poultry

The 2011 census data indicate the poultry population to be 270 million chickens, 26 million ducks and 11 million pigeons.

There are two main systems of poultry production in Bangladesh: commercial poultry production, and traditional scavenging or semi-scavenging poultry. Approximately 20% of the protein consumed in Bangladesh is from poultry. The growth of the poultry industry has been very rapid but with losses when avian influenza outbreaks were occurring regularly.

Free range 'backyard' and scavenging poultry, traditionally reared by women and children, play an important role in generating family income, in addition to improving the family's diet with eggs and meat. Performance of indigenous birds is low (35-40 eggs and 1-1.5 kg meat per bird per year), but genetic improvements by selective breeding is resulting in improvements.

Commercial poultry production in Bangladesh is on an industrial scale, is growing rapidly and is expected to make a significant contribution to the economic development of the country.

I.1.B Current organisation of the Veterinary Services

The Department of Livestock Services (DLS) is established under the Ministry of Fisheries and Livestock (MoFL) as the Veterinary Authority for animal health services and is also responsible for animal production and veterinary public health. Until relatively recently, the majority of animal health services have been clinical in nature and offered free of charge in order to support animal production targeting the rural poor.

The DLS is headed by a Director General, who has five Directors (one of which is designated as Principal) under him. The Directors and the Principal are responsible for the supervision of the following units:

- Director of Administration and Animal Health/Chief Veterinary Officer (CVO): administration, budget, procurement (Medicines and Equipment), planning and evaluation, livestock economics, the Dhaka Zoological Garden, and the Central Veterinary Hospital.

- Director of Research, Training and Evaluation: Central Disease Investigation Laboratory, Field Disease Investigation laboratories, Veterinary Public Health, Livestock & Poultry Vaccines, Animal rearing and breeding, ecto & endo parasites, Pathology, Toxicology, seed & Media culture, Livestock Training Institutes and Veterinary Training Institutes.
- Director of Extension: Divisional Livestock Offices/Hospitals, District Livestock Offices/Hospitals, Upazila/Metro Thana Livestock Offices/hospitals, Artificial Insemination & Fodder Production, District Artificial Insemination Centre, and District Veterinary hospitals.
- Director of Production: Central Cattle Breeding Station, Central Poultry Farm, Regional Poultry Farm, Regional Dairy and Breed Development Farm, District Dairy Farm, District Poultry Farm, Buffalo Breeding Farm, and a Pig Farm.
- Principal: Principal of the Officers Training Institute.

The field animal health service consists of one Director (Extension) under the DG, DLS with 7 Divisional Livestock Offices, 64 District Livestock Offices/Hospitals, 481 Upazila Livestock Offices/Hospitals, and 9 Thana Livestock Offices. A proposed new organisational structure has been drafted and includes the posting of a veterinary para-professional (animal health technician) at each of the 4,550 union councils, in an attempt to extend access to basic animal health services to most farmers in the country.

Veterinary diagnostic laboratory services are provided by one Central Disease Investigation Laboratory (CDIL) and the nine Field Disease Investigation Laboratories (FDILs). The Livestock Research Institute (LRI), which produces a wide variety of animal (including poultry) vaccines, has been established as a separate Directorate outside of DLS. The Director of BLRI reports directly to the Secretary of the Ministry of Fisheries and Livestock. The DLS also has an Animal Nutrition Laboratory which undertakes feed quality testing, the Central Artificial Insemination Laboratory and the Rajshahi Artificial Insemination Laboratory which support several AI centres supplying frozen semen to district and upazilla clinics.

Other units under the DLS where there is a combination of animal production and veterinary activities are the central cattle breeding & dairy farm, the 22 district artificial insemination centres, 433 artificial insemination sub-centres, 623 artificial insemination points, six dairy & cattle development farms, one buffalo breeding & development farm, five goat development farms, one pig development farm, ten poultry breeding farms, 20 poultry rearing units, one central duck breeding farm, 3 regional duck breeding farms, and two zoos.

Since the PVS evaluation was undertaken in 2011, the DLS has partially established 24 border inspection posts (BIPs) at 18 land crossings, three airports, two seaports and one rail entry point.

The DLS has also been authorised (under the Animal Slaughter and Quality Control of Meat Act (2011) to license and inspect abattoirs and all other types of slaughter facilities and meat processing plants and to carry out ante and post-mortem meat inspection and certification but as yet no inspectorate has been established to undertake this responsibility. Under the Diseases of Animals Act (2005) and Diseases of Animals Rules (2008), the DLS is empowered to license and inspect milk processing and retail facilities. The Diseases of Animals Rules contain detailed requirements concerning the establishment of slaughter facilities, meat processing plants and milk processing facilities. There is nevertheless some confusion within the existing legislation since similar powers and responsibilities to those given to the DLS are also provided to the Bangladesh Food Safety Authority (Food Safety Act (2013))

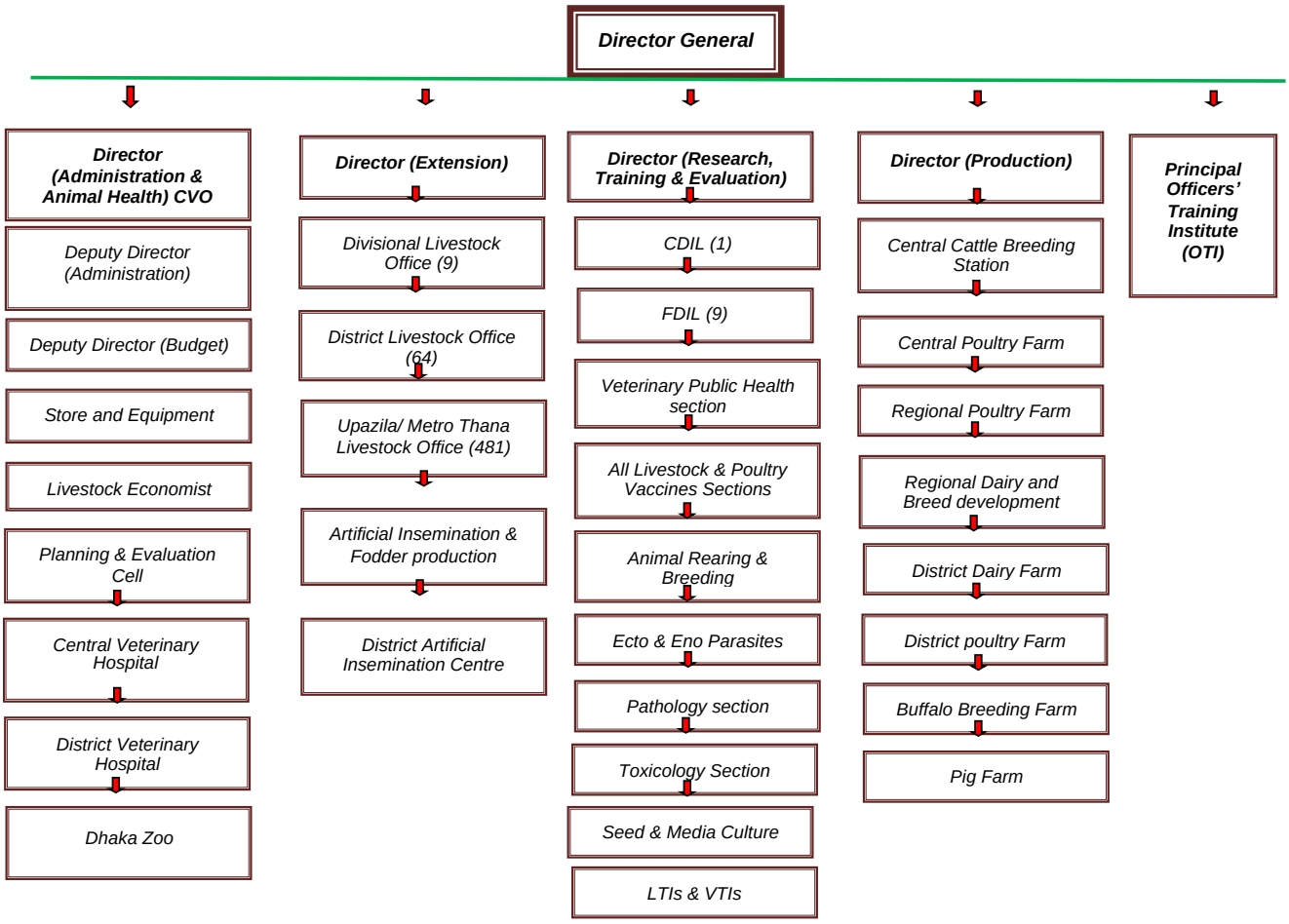
established under the Ministry of Food. It was reported to the PVS Gap mission that inspectors provided by the Ministry of Health and sometimes by the MoFL are provided on deputisation to some municipal and other local authorities to undertake hygiene inspections and to carry out ante- and post-mortem meat inspection and certify meat as being fit for human consumption in a few municipal slaughter facilities. In practice, there is currently no authority which has a full complement of staff trained to perform slaughterhouse inspections or to undertake ante- and post-mortem meat inspection effectively. Furthermore, although there is a 'veterinary section' identified within the Bangladesh Drug Authority there has been no clear registration or control of the sale and use of veterinary medicines and biologicals.

According to data provided by the DLS at the time of the PVS evaluation in 2011, the total number of approved 'first class' posts in the Department was 1515 livestock professionals and approximately 7000 third and fourth class post (veterinary technicians, livestock assistants, dressers, etc.). At that time, 993 of the first class posts were filled and 522 were vacant; no updates were provided to the PVS Gap mission.

The DLS had previously submitted a proposal to the Ministry to increase central and field staff from 8,689 total employees (including veterinarians, technicians, clerical and maintenance staff) to approximately 27,565 government employees. This proposal was rejected and it was reported during this PVS Gap mission that there is currently an ongoing planning process which it is hoped will redefine the functions of the various Directorates within the DLS and will result in a proposed new structure which will include a Directorate to take responsibility for the regulatory aspects of domestic and international trade of animals and animal products and border control, a Veterinary Public Health Directorate dedicated to food safety of animal products and the prevention and control of zoonoses, an Epidemiology Directorate and a Veterinary Drug Control Directorate with corresponding activities at all levels of the field animal health services, as appropriate, to undertake the more important regulatory functions which are currently not being addressed.

A Bangladesh Veterinary Council has been established and is functioning to regulate the practice of veterinary medicine by registered veterinarians. There is a very poor record of disciplinary action and the Council has a very low capacity, relying heavily on the government for funding with no ongoing source of income. However, the law makes no provision for the regulation of veterinary para-professionals, who outnumber qualified veterinarians in the field services by a ratio of approximately 7:1. The Council also has a mandate to ensure the quality of veterinary education and is able to apply sanctions by refusing to register graduates unless they have followed an approved degree course.

ORGANISATION OF THE Directorate of Livestock Services



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

List of sites	Terminology or names	Number
GEOGRAPHICAL ZONES OF THE COUNTRY		
Climatic zones	*See Figure*	7
Agro-ecological zones	*See Figure*	30
ADMINISTRATIVE ORGANISATION OF THE COUNTRY		
1st administrative level	*Central Government(Ministry)*	1
2nd administrative level	*Division*	7
3rd administrative level	*Districts*	64
4th administrative level	*Upazila*	500
5th administrative level	*Union Council*	4550
VETERINARY SERVICES ORGANISATION AND STRUCTURE		
Central VS	Department of Livestock Services (DLS)	1
Divisions		7
Districts		64
Field	Upazila and Union Councils	5050
Private veterinarians	Very few practitioners, some employed by companies	
Veterinary organisations	Bangladesh Veterinary Council, Bangladesh Veterinary Association	2
VETERINARY MEDICINES & BIOLOGICALS		
Production sector	1. Chemico 2. Chemist 3. Jams 4. Albion 5. Popular 6. Techno 7. Globe pharma 8. Square Pharma 9. Gentry 10. FNF 11. Ethical 12. Acme 13. Jayson 14. Eskayef 15. Reneta 16. Opsonin 17. Super power 18. Navana 19. Medimet 20. Al-madina 21. Blubell 22. Hope 23. Elixir 24. Eon pharma 25. Novartis 26. Rampart 27. Loly 28. Medicon 29. Pharmadesh 30. Pharmaco 31. ACI 32. Ziska 33. Edruc	33
Import and wholesale sector		18
Retail sector		N/A
VETERINARY LABORATORIES		
National laboratories	Central Disease Investigation Laboratory (CDIL) National Reference Laboratory (BLRI)	2
Regional laboratories	Field Disease Investigation Laboratory (FDIL)	9
Accredited/other labs		0
ANIMAL AND ANIMAL PRODUCTS MOVEMENT CONTROL		
Bordering countries	India, Myanmar	2
Airports and ports border posts	1. Hazrat Shah Jalal International Airport, Dhaka 2. Shah Amanat International Airport, Chittagong 3. Osmani International Airport 4. Chittagong seaport 5. Mongla seaport, Bagerhat	5
Main terrestrial border posts	1. Sonamasjid, Chapainawabganj 10. Benapole, Jessore	10
Minor terrestrial border posts	2. Akhaura, B. Baria 3. Belunis, Feni 4. Banglaband, Panchagaor 5. Burimari, Lalmonirhat 6. Darshana, Chuadanga 7. Bibir bazaar,Comilla 8. Vomra, Satkhira 9. Hili, Dinajpur 11. Tamabil, Sylhet 12. Jokiganj, Sylhet 13. Sutarkandi, Sylhet 14. Kamalpur, Jamalpur 15. Rohonpur, Chapainawabganjk 16. Birol, Dinajpur 17. Teknaf, Coxbazar 18. Bituli, Sylhet	8
Quarantine stations for import		18

PUBLIC HEALTH INSPECTION OF ANIMALS AND ANIMAL PRODUCTS		
Export slaughterhouse		1
Local market slaughterhouse		N/A
Slaughter areas/slabs/points		N/A
Processors		N/A
ACADEMIC, TRAINING AND RESEARCH ORGANISATIONS		
Veterinary university	1. Bangladesh Agricultural University, Faculty of Veterinary Science 2. Chittagong Veterinary and Animal Sciences University 3. Sylhet Agricultural University, Faculty of Veterinary Sciences 4. Rajshahi University, Department of Veterinary and Animal Science 5. Patuakhali Science and Technology University, Faculty of Veterinary science 6. Dinajpur Science and Technology University, Faculty of Veterinary Science 7. Sher-e- Bangla Agricultural university, Faculty of Veterinary science 8. Jhenaidah Government veterinary College	8
Veterinary paraprofessional schools	1. Livestock training institute (LTI), Gaibandha, 2. Livestock training institute (LTI), Sylhet 3. Veterinary Training Institute (VTI), Mymensigh 4. Veterinary Training Institute (VTI), Alamdang	4
Veterinary research organisations	1. Livestock Research institute, Mohakhali, Dhaka. 2. National reference laboratory, BLRI, Savar, Dhaka 3. Central Disease investigation laboratory (CDIL), 4. Field Disease investigation laboratory (FDIL)-7 no	4
STAKEHOLDER ORGANISATIONS		
National livestock farmers organisations	1. Poultry Industries Association in Bangladesh 2. Dairy Industries Association In Bangladesh 3. Feed Industries Association in Bangladesh 4. Breeders Association in Bangladesh 5. Egg Producers Association	
Other stakeholder organisations	Animal Health Companies Association in Bangladesh	1
Consumers organisations	Consumers Association in Bangladesh (CAB)	1

I.1.D Summary results and recommendations of the OIE PVS Evaluation (2011)

At the time of the PVS evaluation in 2011, the DLS was found not to be in a position to undertake all of the more important regulatory functions of the modern 'veterinary domain'. The OIE PVS Team recommended that the DLS should undertake a thorough review of its functions, especially those regulatory functions, which as yet had not been accommodated within the existing structure. The proposed reform process was to examine all aspects of the livestock value chain from livestock producers through to the food processing industries and including the wholesale and retail domestic markets and ultimately support potential export markets for terrestrial and aquatic animal products.

In particular it was recommended that the DLS should play an active role in ensuring the safety of animal products destined for human consumption and other commercial purposes, the regulation of import and export of animals and animal products in accordance with international standards (OIE, WTO and Codex Alimentarius) and the regulation of the registration, distribution and use of veterinary medicines and biologicals.

Whilst it was recognised that the vast majority of rural households are extremely poor and cannot afford the full cost of a professional level of routine clinical services, it was recommended that consideration be given to a more objective means of stratifying farming systems in order to accommodate the needs of the rural poor, whilst at the same time providing services to emerging and fully commercial farmers, who are able and willing to pay for routine curative and preventative animal health services as a 'private good'. A rationalisation of service delivery should consider the wider deployment of veterinary para-professionals working under the supervision and direction of professional veterinarians. A gradual process of commercialisation and then privatisation of routine veterinary services was also recommended to be considered in a phased approach.

In addition to the regulatory functions, the most important core functions which were found to be absent or limited were: disease surveillance, animal disease reporting systems, risk based disease prevention and control systems, food safety, inspection and laboratory testing for residues, import/export controls, international veterinary certification, animal identification/movement control and traceability systems, communication and information management.

At the time of the PVS Evaluation, the ongoing HPAI programme provided a model for developing a comprehensive disease surveillance and reporting network. The system developed through that project should be adopted for all major notifiable diseases under a fully established central Epidemiology Department with divisional and district level offices linked to the central unit through a web-based information management system. Food safety including ante and post-mortem inspection of slaughter animals and the regulation of the distribution, supply and use of veterinary medicines required urgent attention to ensure that the issues of the presence of residues in products of animal origin destined for human consumption are being addressed more effectively.

It was strongly recommended that veterinary education be strengthened by supporting the (then) ongoing process of combining the Animal Science degree programme with the Veterinary Medicine and Surgery curriculum. The Council should ensure that degree curricula address the 'Day One' competencies required of veterinarians and that diploma/certificate level training of veterinary para-professionals should be aligned with their competency requirements. In addition, there was a recognised need to develop a well-structured programme of 'Continuing Professional Development' for all cadres of professional and para-professional service providers through a collaborative process between the academic community and the state veterinary service.

The current practices within the VS of arbitrary promotion was based on seniority/length of service and was having a negative impact on the development of a credible Veterinary Authority. There was an urgent need to review the process of human resource development within the DLS including implementing proper merit based recruitment and promotion. Entry level training was urgently needed to provide the basic knowledge, skills and abilities for newly recruited staff to perform core functions. In certain areas of service provision, especially in the area of diagnostic laboratory services, a distinct career pathway needed to be developed whereby technical staff gradually acquired the complex range of skills needed to provide the full range of diagnostic services demanded of a Veterinary Authority.

Coordination of activities between the headquarters and the district and upazilla level veterinary offices was found to be poor. Although it was observed that the District Veterinary Offices were able to demonstrate that they receive, record and analyse animal disease reports based upon clinical suspicion, none of this data was being forwarded to headquarters for management and planning purposes. Disease

prevention through vaccination services is based upon targets, set by the availability of funds rather than on animal numbers and disease epidemiology and economics. Furthermore, there was found to be no legal basis for the DLS to take responsibility for many core functions, which would be considered to belong to the veterinary domain. This was especially true for disease surveillance, disease control and eradication, food safety, early detection and rapid response programs, and import control and export certification.

The OIE PVS team noted that consultation and coordination was poor. The senior management team did have informal relationships with some key stakeholder institutions, but these were not defined, documented or formalised in any way. For instance, whilst a representative of the DLS maintains irregular contacts with the SPS/WTO hub within the Ministry of Commerce, this had not resulted in the best outcomes in terms of the regulation of imports of live poultry which are controlled by the Ministry of Commerce and not the DLS, thus risking the technical independence of such decisions. Similarly, there was a distinct lack of evidence of interaction with the Ministry of Health and Family Welfare or the municipal councils on defining roles and responsibilities for the regulation of food safety. Private veterinary diagnostic laboratories were generally capable of providing competent diagnostic services to their private clients, but the DLS had made little effort to utilise this expertise or the disease information that these service providers could have shared with them. There was generally a good relationship between the DLS and many of the veterinary colleges, however, there was no evidence that any effort had been made to use the colleges to provide the DLS with any training services on a regular basis. It was recommended that a Continuing Education programme, to improve the technical skills and abilities for all levels of DLS personnel, should be developed in collaboration with the veterinary colleges.

I.2 Methodology

I.2.A Organisation of the mission

Following a request to the OIE from its government, a PVS Gap Analysis mission was conducted from 20 July to 30 August 2015 by a team of independent OIE certified experts: Dr John Weaver as team leader and Dr John Stratton and Dr John Woodford as technical experts.

I.2.B Estimation of resources needed

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

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

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

In some chapters, the specific additional resources required are described in more detail: for instance CC II-5A, Passive Surveillance covers the staffing and resources for the field service, and CC II-8B Food Safety: ante and post mortem inspection provides the staff and resources for veterinary public health activities in the slaughterhouses and the distribution chain. In the Management Pillar, staff and resources of the VS centrally and at divisions and districts are covered under CC II-6A, Management of the Veterinary Services, internal coordination. In other chapters, the additional resources required may appear very low as most costs are covered elsewhere; where this occurs cross reference is made.

The overall budget analysis (Chapter VI) assesses the different budget lines: ongoing investment, salaries, repairs and maintenance, operations, etc. This budget analysis demonstrates the logic of the PVS Gap Analysis, its sustainability and incorporation into the quality control policy of the Veterinary Services.

Notes

The international currency used in this report for the estimation of costs and the budget is the USD.

In Bangladesh, the amortisation rate of buildings/facilities, transport and equipment has been determined as such:

- 25 years for construction of building
- 25 years for renovation of building
- 10 years for pick-ups and 4x4
- 6 years for motorbikes
- 10 years for cold chain
- 5 years for laboratory equipment
- 5 years for telecommunication and computer equipment sets

UNIT COST SPREAD SHEET

Unit costs (estimates)

1- Currencies

	Currency	Conversion rate (exchange rate)
Currency used for this report (USD or EUR)	USD	Number of Taka per USD
National currency	Taka	75

2- Material investments

	Supply cost / unit		Years of amortisation
	Local currency	International currency	
Buildings — *Unit of surface (m²) or (ft²)*	sq m		
Maintenance cost per sq m	1500	20	
Renovation cost per sq m	10000	133	25
Building cost per sq m	30000	400	25
Transport (purchasing cost)			
Motorbikes	100,000	1,333	6
Pick ups	4,500,000	60,000	10
4x4 vehicles	7,000,000	93,333	10
Office equipment set			
Staff office equipment set (desk, chair, telephone, computer and standard peripherals)	150,000	2,000	5
Other specific office equipment set			

3- Non material expenditure

Training			
Initial training (per student)			
Veterinarians (DVM, BVS) total training cost			
Veterinary paraprofessionals total training cost			
Specialised training (short courses, certificates, Masters degree, PhD, etc.)			
Accommodation per month	30,000	400	
Training fees per month	90,000	1,200	
Travel per month	1,500	20	
Cost of specialised training per month	121,500	1,620	
Continuing education (daily cost per person on a basis of a group of 15 people)			
Per diem 15 participants	15,000	300	
Room rental and educational tools per day	25,000	333	
Daily cost for a national expert consultant	6,000	80	
Daily cost per trainee	3,067	48	
National expertise (cost per day)			
Daily fees	4,000	53	
Per diem	2,000	27	
Total cost per day and per expert	6,000	80	
International expertise (cost per week)			
Daily fees	80,000	1,067	
Per Diem	15,000	200	
Average cost of an international flight	45,000	600	
Total cost per week	710,000	9,469	

4- Salaries (salaries, bonuses and social benefits)

Veterinarians	416,950	5,559	
Other university degree	218,800	2,917	
Veterinary para-professionals	120,920	1,612	
Support staff	102,250	1,363	

5- Consumable resources

Travel allowances			
Per diem for technical staff	1,500	20	
Per diem for drivers	900	12	
Per diem for technical staff travelling abroad	7,500	100	
Average cost of an international flight	60,000	800	
Travel and per diem for one week abroad	**112,500**	**1,500**	
Transport costs			Unit
Price of fuel (average between petrol, diesel or mixt) per unit	100.0	1.3	litre
Average number of km/miles per year			Unit
Average distance per year by motorbike in km	4,800		km
Average distance per year by car in km	15,000		km
Average distance per year by 4x4 in km	18,000		km
	Fuel consumption per 100 km/miles		*Running cost (fuel + maintenance + insurance = consumption x 2)*
Km or mileage cost (motorbike)	1		0.02667
Km or mileage cost (car)	8		0.21333
Km or mileage cost (4x4 vehicle)	14		0.37333

6- National economic indicators

			Sources
GDP			
National GDP	*13,036,500,000,000*	173,820,000,000	
Agriculture GDP			
Livestock GDP	*276,688,000,000*	3,689,173,333	
Total value of National Herd			
Value of exported animals and animal products			
Value of imported animals and animal products			
Number of VLU			
Country budget			
National Budget	*2,505,060,000,000*	33,400,800,000	
Agriculture and Livestock Budget	*90,000,000,000*	1,200,000,000	
Veterinary Services Current Budget	*5,020,000,000*	66,933,333	
Current budget for salaries of public staff of VSs	*2,460,000,000*	32,800,000	
Current operational budget	*1,200,000,000*	16,000,000	
Current capital investment of VS	*1,360,000,000*	18,133,333	
Current budget of VSs for Delegated Activities			

I.2.C Organisation of the report

The desired levels of advancement for each PVS critical competency were identified (Chapter II.2), recognising national priorities and constraints, in discussion with the Veterinary Services of Bangladesh. Activities and resourcing needs were then determined to strengthen the VS and facilitate their closer compliance with international standards as determined by the OIE. The chapters follow a logical order identifying priorities, recognising constraints and issues, assessing processes and resources necessary and providing a plan for improvement.

The second part of this report sets out the objectives to be achieved, taking into consideration the need to strengthen the technical independence and coordination of the Veterinary Services.

- Chapter I sets the standards required for international trade in animals and animal products, establishing the levels of advancement required for imports and exports as targeted by the national policy
- Chapter II considers veterinary public health, including food safety and the management of veterinary medicines and biologicals
- Chapter III addresses animal health issues, including zoonoses controlled in animals, the core mission of any Veterinary Services
- Chapter IV considers the capability and capacity of veterinary laboratories, as required by the three preceding chapters
- Chapter V makes recommendations on the general management of the Veterinary Services and the related regulatory services. The organisational structure of the national (public) Veterinary Services is considered and the role of private veterinary practitioners is discussed. This chapter also identifies the development of cross-cutting skills (communication, consultation, legislation, education, etc.) required to run effective national Veterinary Services
- Chapter VI presents the budget for strengthening the Veterinary Services with an indicative analysis to assess sustainability, including a breakdown by main budget component (investments, operations, emergency) and sub-component (salaries, materials, etc.).
- Chapter VII presents the budget for strengthening the Veterinary Services with an indicative analysis, including a breakdown per main budget lines (investments, operations, emergency) and sub-lines (salaries, items, etc.), and a comparison with GDP (national, agriculture and livestock), national budget (total, agriculture, Veterinary Services), value of national livestock and of imported and exported animal products.

II National and international priorities and expected levels of advancement

II.1 National priorities

Table n°1 - Table listing national priorities

Category	National Priorities	Comments
Policy on **livestock development (LD)** and trade	LD1: Increase production of poultry, beef and goats LD2: Expand existing and develop additional export markets, for poultry (meat, day old chicks and fertile eggs), beef and goats. LD3: Expand dairy production	Improve food security Improve employment opportunities Access higher value export markets especially for beef and goat meat Reduce imports of dairy products Opportunity to intensify livestock production Increasing dairy production is a national priority
Technical priorities in **veterinary public health (VPH)**	VPH1: Define roles and responsibilities for veterinary public health VPH2: Improve hygiene and inspection standards for animal products throughout the food chain. VPH3: Improve veterinary drug regulation YPH4: Implement a pilot residue testing programme	There is a lack of clear definition of roles between DLS (MoFL) and Ministries of Health and Food Food safety is high priority including for poultry Need to upgrade slaughterhouses and their management Capacity development of food safety laboratories required Address concerns over drug residues with a scientific approach and the need for improved monitoring and control There is a need to establish MRLs and monitor compliance
Technical priorities in **animal health (AH)**	AH1: Strengthen surveillance system and the early detection of notifiable diseases AH2: Reduce impacts of priority diseases with effective disease control policies and programmes AH3: Design and implement pilot livestock traceability for key species/sectors	Surveillance system is weak and is a major concern Need to develop disease investigation capacity, including sampling, laboratory capacity and information management. Disease control programmes need to be strengthened and made sustainable; consider the use of cost benefit analysis to evaluate vaccination and biosecurity/movement controls Lack of livestock identification and movement control limits disease control and certification of products for export
Policy on organisation and management of the **veterinary services (VS)**	VS1: Improve VS human and financial resources and staff skills with specialist training VS2: Review and revise structures to reflect official Veterinary Authority mandate e.g. surveillance, certification VS3: Increase engagement with private stakeholders – develop joint programmes VS4: Improve external coordination including with other ministries and departments VS5: Update legislation and improve compliance	VS are understaffed and under-resourced; specialist training required in epidemiology, risk analysis and food safety Recognised need to increase stakeholder awareness and support with improved representation, communication, consultation and develop of joint programmes. Other key ministries include Ministry of Commerce (for trade), Ministry of Health (for zoonoses, vet drugs, food safety), Customs (border control) and Police (enforcement and animal welfare) Strengthen VSB capacity Increased regulatory activities of the VS are required to deliver mandate effectively

II.2 Level of advancement

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

[2] PVS Evaluations – II.1 'Veterinary laboratory diagnosis' as Level 1; this CC is now divided into II.1A and II.1B.
[3] – II.6 'Early detection and emergency response', now 'Emergency response'
[4] – II.8A 'Ante/post mortem inspection' as Level 1; II.8B 'Inspection of collection, processing and distribution' as Level 1
[5] New Critical Competency – not previously assessed

II.3 Impact and significance

Bangladesh faces many environmental and development challenges. It is a very fertile country with a large human population and a rapidly developing economy. Demand for animal products is increasing rapidly and this needs to be met by increasing domestic livestock production.

The Veterinary Services have the opportunity to improve food security, improve food safety, support economic development, community wellbeing and rural livelihoods. The country has a small but profitable export market in beef to the Middle East and of leather and other animal by-products. There is an opportunity to develop export markets further to support national economic development.

The current organisational structure has the Veterinary Services as part of a broader livestock production service, Department of Livestock Services, and this results in a weak Veterinary Authority with low profile and a weak 'chain of command' to deliver the necessary regulatory and other veterinary services. Addressing this weakness will immediately strengthen the Veterinary Services.

Another key issue faced is the lack of any coherent veterinary public health programme. The animal production food safety program in Bangladesh is very limited and needs to be extended to promote food safety and human health at slaughter sites and also to address the misuse of veterinary medicines and concerns over residues. The control of zoonotic diseases is limited and significant improvements can be made by strengthening the mandate of the Veterinary Services for the control of rabies, anthrax and food-borne zoonoses.

The major animal disease control programmes in place lack clear strategy and documentation and little or no monitoring and review takes place. By reviewing priorities for disease control more focused, effective and sustainable control will be achieved.

The Veterinary Services have a contingency plan for HPAI but not for other diseases. Improving emergency preparedness and response will protect the livestock industries and human well being into the future.

By undertaking the PVS Gap Analysis strategic development plan the Veterinary Services will support the achievement of the national priorities: increased livestock production and export, reduced risk to human health, improved animal health and the strengthening of an effective and efficient Veterinary Service that has increased compliance with international standards as determined by OIE.

PVS GAP ANALYSIS

I Strengthening competencies for international trade

The purpose of this section is to present the strategies and proposed activities for international trade development, for both imports and exports. This section includes the activities presented in Critical Competency Cards II.4, II.12, IV.4, IV.5, IV.6, IV.7 and IV.8.Links are also made with cross-cutting competencies from the other pillars including the Management of Veterinary Services, Animal Health, Veterinary Public Health and Laboratory

I.1 Strategy and activities

The DLS has indicated that increasing food security, food safety and economic development are amongst its key goals. For international trade of animals and livestock commodities, the priorities for the DLS to contribute to achieving these goals are:

- Reduced risks of entry and spread of animal diseases
- Enhanced safety of imported animals and animal products
- Facilitation of the export of animals and animal products

Bangladesh has a long border with India, which is difficult to control effectively. India bans the export of cattle, nevertheless, it is recognised that there is considerable informal movement of animals from India into Bangladesh. To reduce risks associated with international trade of animals and livestock commodities the VS should control cross-border movement of animals and animal products at designated border crossings, with appropriate inspection and quarantine facilities.

Given the fact that animal disease status is similar on either side of the border, that there are currently no properly effective disease control programmes in Bangladesh, and that there can be no export certification of cattle from India, Bangladesh should formally review the risks posed by this trade and how they can feasibly be mitigated by undertaking a thorough epidemiological and economic risk analysis.

It should also be acknowledged that the combined effects of the India's ban on cattle exports and the imposition of border controls, including inspection fees and any additional costs for inspection and holding will discourage the use of official border crossings and so increase the volume of illegal/informal trade.

Currently there is only one company in Bangladesh which exports beef and this company wishes to penetrate high value markets for fresh deboned beef and chilled goat carcases in the Middle East and elsewhere. To do this Bangladesh needs to meet importing country requirements relating to FMD – compartmentalisation is a useful strategy to achieve this.

The poultry sector has grown rapidly over the past two decades and there are now large numbers of commercial producers specialising in grand-parent, parent, layer and broiler flock production. There are significant opportunities for the export of hatching eggs and other poultry products especially to countries with a similar animal health status.

International trade in animals and animal products requires that the veterinary services in both importing and exporting countries agree on trading conditions and are able to comply with the standards and guidelines set out in the Terrestrial Animal Health Code of the OIE, the Codex Alimentarius and the Agreement on the Application of Sanitary and Phytosanitary Measures of the World Trade Organization (SPS Agreement).

A key element of the strategy to achieve the goals described above will be the establishment of a new Directorate within the DLS, which will be dedicated to the management of regulatory functions associated with the international trade in animals and animal products. The proposed Trade Directorate in the DLS will develop a series of programmes including:

- Control of cross-border movements of animals and animal products at designated ports of entry
- Negotiations with veterinary authorities of trading partners to reach bilateral sanitary and/or equivalence trading agreements, incorporating consultations with livestock producers.
- Introduction of pilot animal identification, movement control and traceability systems for key sectors and species
- Organisational and institutional reforms to improve compliance with OIE and other international trade standards (including review and revision of legislation)
- Establishment of the authority to apply compartmentalisation for selected export enterprises

Quarantine and border security

Currently, the DLS has no programme specifically dedicated to dealing with the regulatory aspects of import and export of animals and animal products.

The new proposed Trade Directorate to be established within the DLS must first undertake a feasibility study, including a risk analysis, to gain a better understanding of the risks of introduction and spread of diseases into Bangladesh.

On the basis of the outcome of the risk analyses the DLS shall determine the most appropriate measures to be adopted for the border control of imported animals and animal products. DLS must consider the unusual situation with regard to the trade of cattle from India and the similar animal health status of both countries, with the priority being given to supporting specific animal disease control programmes in Bangladesh.

Once this planning exercise has been completed, the MoFL may be required to construct appropriate infrastructure at 18 land Border Inspection Posts (BIPs) and provide the necessary facilities and equipment for the inspection of supporting documentation (for animals other than bovines) and the handling, inspection and, when appropriate, the detention, isolation, sampling, treatment and/or vaccination of animals entering Bangladesh.

Training of DLS BIP officers will be required to develop specialised knowledge and skills to undertake regulatory activities for border control in accordance with OIE and other international standards.

Additional activities to support border control will include the revision of legislation to provide authority to the DLS to set and enforce appropriate sanitary measures in compliance with OIE and other international standards.

The costs of establishing and maintaining border controls will be partially offset through the collection of import certification and inspection fees and charges for the application of sanitary measures as appropriate.

Animal identification and movement control

Currently no animal identification, movement control and traceability system has been established in Bangladesh. The first step for the DLS will be to develop the necessary primary and secondary legislation to provide the authority to establish a formal animal identification, movement control and traceability system for animals and animal products. A process of stakeholder consultation with dairy, beef and poultry producer associations and other stakeholders should be undertaken to ensure compliance with standards as these are progressively developed and introduced.

As a formal animal identification system is introduced, the DLS should develop an effective animal movement control system through the conduct of animal health inspections and issuance of movement permits.

Key to the success of any animal identification and movement control system will be the development of an information management system, which will then allow the traceability of animals and animal products along the livestock value chain, from 'farm to fork'.

Animal identification systems will initially be developed to facilitate disease control in livestock sub-populations and in partnership with commercial dairy producers, for the development of genetic improvement of dairy cattle and to support exporters of animals and animal products, to satisfy the traceability requirements of importing countries.

Identification and traceability of products of animal origin

Traceability of animal products will allow the DLS, and MoH, to investigate the source of contamination or adulteration of animal products on the domestic market as well as satisfying certification requirements for animal products destined for export.

Horizontal collaboration between the proposed Trade Directorate and the VPH Directorate will ensure that the food safety standards being imposed by international trading partners can be met. The 'farm to fork' concept of food safety should be endorsed by establishing a cross ministry coordinating committee and defining roles and responsibilities for MoFL, the Ministry of Health and the Ministry of Food.

The DLS should also enter into consultations with the Food Safety Authority of the Ministry of Food and the Ministry of Commerce to harmonise their respective roles and responsibilities for developing an animal product traceability system, both for the domestic and export markets and to facilitate international trade agreements.

The aim should be the introduction of a legally authorised system for the labelling of animal products including branding, batch numbering and processing and expiry dating and an associated information management system will allow the trace back of animal products to the point of manufacture and as animals are formally identified further upstream in the livestock value chain – this approach is unlikely to be achieved in the next five years. Initially a simple 'quality stamp' should be used to certify all carcasses as fit for human consumption at post mortem inspection.

International certification and equivalence agreements

The DLS currently has limited capability to issue international veterinary certificates in compliance with OIE and other international standards. Furthermore, representatives of the poultry industry have indicated that long delays have resulted in the loss of supply contracts for hatching eggs and other poultry products.

As with many other regulatory functions of the DLS, there is an urgent need to review and revise the legislation governing the import and export of animals and animal products to bring it in line with OIE and other international standards.

In liaison with the Ministries of Health and Food, The DLS should progressively harmonise standards of practice for food safety at animal product processing facilities (both domestic and export) through the introduction of food safety management systems such as HACCP, which should ultimately lead to ISO 22000/2005 accreditation.

The DLS should develop initial and ongoing training programmes to improve the knowledge and skills of VPH inspectorate staff to ensure appropriate issuance of international veterinary certificates in compliance with OIE and other international standards.

The proposed Trade Directorate should support negotiations with importing countries to develop bilateral or equivalence agreements, such as re FMD compartmentalisation for beef exports. Senior managers will need entry level and ongoing training to allow them to perform their functions effectively.

Priority needs to be given to risk analysis training, which will initially need to be given by an international expert. Risk analysis training should then be followed by a course on how to negotiate equivalence agreements.

Transparency

Member countries of the OIE are legally required to notify the OIE of any unusual notifiable disease occurrences on an ad hoc basis and to make routine notifiable disease reports on a six monthly basis. Furthermore, Article 7 of the SPS Agreement states that [WTO] members shall notify changes in their sanitary or phytosanitary measures and shall provide information on their sanitary or phytosanitary measures in accordance with the provisions of Annex B (Rules).

The DLS is currently not able to accurately notify OIE and trading partners of the animal health status in Bangladesh nor of changes in its sanitary requirements in accordance with OIE standards and the WTO/SPS Agreement due to the limited coverage of its field animal health network and issues with its disease reporting system.

The necessary steps required to ensure accurate notification of the animal health status are covered in the sections of this report dealing with animal disease surveillance and reporting (CCs II-5A and II-5B).

For transparency in international trade, the proposed Trade Directorate should appoint an officer responsible for making notifications and answering queries from trading partners through the 'SPS Notification and Enquiry Point'.

Selected senior managers should be trained in all aspects of the regulatory controls of import and export and the standards set by the WTO and OIE. Following training, the DLS should start to set its own sanitary measures based on risk analyses. These sanitary measures should then be published via the 'SPS Notification and Enquiry Point.

Compartmentalisation

Compartmentalisation means establishing an animal subpopulation contained in one or more establishments under a common biosecurity management system with a distinct health status with respect to a specific disease or specific diseases for which required surveillance, control and biosecurity measures have been applied for the purposes of international trade.

The process of compartmentalisation must, therefore, be driven by private companies wishing to gain access to international markets requiring imported animals or animal products to be free from specified animal diseases. The evidence required to confirm that an establishment is fully compliant with the standards of surveillance and biosecurity should be provided through the development and adoption of a robust risk-based biosecurity management plan. The risk-based biosecurity plan should detail all of the critical controls necessary to ensure the safety of its animals and and/or animal products with respect to the diseases specified by the importing country.

The Veterinary Authority has a critical role to play in confirming that these standards are being met through their issuance of international veterinary certificates. This will require the conduct of regular audits and inspections by officers of the Trade Directorate.

Currently a single beef export company serves as a good candidate to lead in this process, since it has already adopted many of the principles of compartmentalisation in its existing biosecurity programme. The DLS will be required to participate in meetings between this company and the Veterinary Authorities of the importing countries on compartmentalisation. It is envisaged that following this, compartmentalisation might be developed for some selected poultry establishments.

Currently there is very limited capacity within DLS to provide the necessary advice and oversight to private sector companies. As is normally the case with compartmentalisation, the company should be encouraged to lead, investigate and plan the process and present its compartmentalisation proposal to the government and its trading partners. The government should provide oversight/audit services and technical advice. In the first instance the DLS should engage an international expert to provide specialised training on risk analysis and

compartmentalisation, the development of bio-risk management plans and the conduct of audits and compliance inspections.

I.2 Human resources

Animal disease notification to the OIE is currently undertaken by the Deputy Director Administration and Animal Health who also has many other duties. The proposed Trade Directorate will initially require one person; in future as the workload increases additional staff may be required. This department will also require database managers to maintain records including:

- Border inspections of imported animals and animal products, including any sanitary measures which have been applied at the border
- International Veterinary Certificates issued for export of animals and animal products
- Premises registration (major commercial producers engaged in export of meat, poultry and poultry products)
- Animal identification, registration and animal movement records.

Border inspection officers – A total of 24 land, air, sea and rail port BIPs staffed as follows

Categories of sites to inspect	Number of sites of this category	Number of days of work per year on site	Number of hours of work per day on site	Veterinarians		Veterinary para-professionals		Support staff	
				on site	total in Full time equivalent	on site	total in Full time equivalent	on site	total in Full time equivalent
Quarantine and border security					**110**		**381**		**490**
Large land BIPs	4	365	24.0	2	38	6	114	8	152
Land BIPs	14	365	12.0	1	33	4	133	5	167
Seaports	2	365	24.0	1	10	4	38	5	48
Airport - large	2	365	24.0	2	19	6	57	8	76
Airport	1	365	24.0	1	5	4	19	5	24
Rail BIP	1	365	24.0	1	5	4	19	5	24

I.3 Physical resources

Each of the 18 land BIPs should have a building and basic laboratory facilities where samples collected from imported animals can be tested using rapid penside tests and for processing other samples for transport to the nearest FDIL, CDIL or to the VPH laboratory in Dhaka. A secure quarantine storage area will be required for detention of animal products and animal feeds. A small store will be required for storage of spraying equipment and disinfectants. Ancillary resources required include back-pack sprayers and equipment for sample collection, materials and consumables.

Each of the large land BIPs should have cattle handling facilities including a loading/unloading ramp, collecting yards, a race and an inspection crush where treatments and vaccinations may be given. A separate isolation pen will be required for holding injured animals or animals found to be showing clinical signs of disease. Additional facilities will also be required for safe destruction and disposal of destroyed animals, animal products and any contaminated materials. The size of collection yards should be sufficient to hold up to 20 large animals at a time – corresponding to 2 trucks unloaded at one time.

Similar parallel facilities will be required for handling imported small ruminants. Each of the smaller land-ports will require similar, but smaller facilities, the size depending on expected throughput. The decision as to whether quarantine/isolation facilities will be required for holding animals will depend on the outcome of a risk analysis.

Transport should be provided for all BIPs to enable their activities. One motorbike should be provided to each BIP and a pick up vehicle to the four large land BIPs and the two international airports.

I.4 Financial resources

The total financial resources for this pillar are presented in Table 2 (below).

In summary, over five years the total estimated annual budget required is estimated to be USD 2,610,000 with an exceptional budget of USD 284,000. The major budget items are staff salaries of USD 1,890,000 per annum and for consumables at USD 490,000 (communications and consultations, equipment and materials for sampling).

Table n°2 - Sub-Total for strengthening competencies for trade

SUB-TOTAL TRADE						
Resource and cost lines	Current Number	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments						
Buildings ()		1200				
Maintenance cost per (sq m)		1200	20	1	24,000	
Renovation cost per (sq m)			133	25		
Building cost per (sq m)			400	25		
Transport (Purchasing cost)						
Motorbikes		24	1,333	6	5,332	5,332
Pick ups		6	60,000	10	36,000	180,000
4x4 vehicles			93,333	10		
*Other specific vehicle for Trade**					9,600	
*Other specific vehicle for Trade**					8,640	
Staff office equipment set		30	2,000	5	12,000	
Other specific office equipment set						
Other specific equipment						
*Other specific equipment for trade**					17,200	
*Other specific equipment for trade**					800	
Sub-total Material investments					**113,572**	**185,332**
Non material investments						
Training						
Specialised training (person-months/5 years)		3.0	1,620			4,860
Continuing education (person-days/year)		2,455.0	48		116,694	
National expertise (days/5 years)		-	80			
International expertise (weeks/5 years)		10.0	9,469			94,690
Special funds (/ 5 years) for …						
Sub-total non material expenditure					**116,694**	**99,550**
Salaries						
Veterinarians		110.0	5,559		611,490	
Other university degree		-	2,917			
Veterinary para-professionals		381.0	1,612		614,172	
Support staff		491.0	1,363		669,233	
Sub-total Salaries					**1,894,895**	
Consumable resources						
Administration			20%		378,979	
Travel allowances						
staff within the country (person-days) / year		2,455	20		49,100	
drivers within the country (person-days) / year		90	12		1,080	
staff abroad (person-weeks) / year			1,500			
Transport costs						
Km or miles Motorbikes / year		115,200	0.03		3,072	
Km or miles cars / year		90,000	0.21		19,200	
Km or miles 4x4 vehicle / year		-	0.37			
*Other transport fees**						
*Other transport fees**						
Specific costs						
Targeted specific communication		7			3,500	
Consultation (number of 1 day meetings)		19			5,700	
Sampling collection equipment		18			900	
*Sample containers, etc**		1,872				
*Tags and materials**		20,000			29,360	
Sub-total Consumable resources					**490,891**	
Delegated activities						
Sub-total Delegated activities						
Total in	***USD***				**2,616,052**	**284,882**
Total in	***Taka***				***196,203,925***	***21,366,150***

II Strengthening competencies for veterinary public health

The purpose of this section is to present the strategies and proposed activities for strengthening veterinary public health and food safety. This section includes the activities presented in the Critical Competency Cards II.8, II.9, II.10 and II.11. Links are also made with cross-cutting competencies from the other pillars including the Management of Veterinary Services, Trade, Animal Health, and Laboratory Services.

II.1 Strategy and activities

Food safety is recognised as a priority for Bangladesh and for the DLS. Food safety issues to be addressed include slaughterhouse hygiene and the lack of prudent use of veterinary medicines including reducing residues in food.

DLS has the necessary authority (Quality of Meat Act (2010) and Diseases of Animals Act (2005)) to undertake a food safety programme but no rules and regulations have yet been developed and so no programme has yet been implemented. A critical issue is to define the respective roles of the DLS and other ministries.

The immediate priority for the DLS, under the Ministry of Fisheries and Livestock, is to work with other relevant ministries, particularly the Ministry of Health and the Ministry of Food, to determine the roles and responsibilities of each ministry and their respective agencies. The current situation has overlapping authorities and this results in inefficient and ineffective use of resources and gaps in programme delivery.

Bangladesh faces a major challenge as currently almost all slaughterhouses in the country are unsuitable for the production of safe food of animal origin. Until appropriate slaughterhouse facilities are constructed progress in improving food safety will be effectively impossible. Recommendations and costing for the development of slaughterhouses are beyond the remit of the PVS Gap Analysis mission, but must be seen as a national priority. Development funding from agencies such as the ADB and WB should be utilised to improve slaughterhouse facilities across the country.

The strategy for DLS to achieve the identified national priorities to promote veterinary public health is to target activities in the following key areas:

- Registration by DLS of export and national slaughterhouse facilities and management systems
- The routine use of ante and post mortem inspection at export and national slaughterhouses by qualified inspectors
- Improved management of veterinary drugs with DLS having greater influence
- Development of a pilot residue testing programme

Registration of larger slaughterhouses

Currently there is no programme for the registration, authorisation or inspection of slaughterhouses in Bangladesh. To promote food safety ideally all slaughter places should be assessed and registered. Notwithstanding the limitations of the available slaughterhouse facilities, it is proposed over the next five years to identify, inspect and register export slaughterhouses (mandatory under international standards) and increasingly those supplying the national market – this should be achieved as these facilities are upgraded.

Consultations will be required with industry and the municipal authorities (and city corporations) to ensure a collaborative approach is taken. The legal basis for registration needs to be reviewed and if necessary new or revised legislation should be prepared.

Procedures and protocols will need to be developed for DLS to manage the inspection and authorisation of the slaughterhouses. Staff familiarisation and training will be required. To

register the premises site visits should be undertaken by trained staff to assess compliance with the minimum standards. Allowance may be made for provisional registration of premises pending upgrading to the minimum standards.

It is also proposed to develop and trial a pilot scheme for local area slaughterhouses – this activity should only be progressed where basic facilities have already been established. The local DLS office could supply trained veterinary or veterinary paraprofessional staff to undertake inspections in a part time capacity.

Appropriate staff should receive training to allow them to assess and register slaughter premises.

Ante and post mortem inspections at larger slaughterhouses

Currently the roles of the municipalities and the DLS in carrying out ante and post mortem inspections are unclear. It is strongly recommended that DLS take the lead role in delivering food safety programmes; to achieve this, consultations will be required with the municipalities and city corporations who manage the slaughterhouses. Legislation may need to be modified to allow for this authority and this should be undertaken as soon as possible. The legislation should define the roles of the DLS and other agencies and specify that only veterinarians and trained veterinary para-professionals (including meat inspectors) should be permitted to carry out this work.

The qualifications and knowledge of veterinary para-professionals undertaking this role will need to be defined.

Initially, export and national slaughterhouses should be brought under the supervision of DLS who would supply veterinary and/or veterinary para-professional inspectors. This need for ante and post mortem inspection of animals will require a large number of trained staff. Resources (equipment and materials) will also be required for these staff to carry out their duties.

Detailed procedures and protocols for ante and post mortem inspection will be required – many of these are available, free of charge, from international agencies and others. The format and means of reporting of both food safety and animal health surveillance data to DLS should be defined with the development of SOPs and reporting templates.

Animal disease data should be collected at the slaughterhouses and made available to the DLS as part of their overall surveillance programme.

Improved management of veterinary drugs and biologicals

Currently Bangladesh has very limited control over the import/manufacture, registration, distribution, sale and use of veterinary drugs and biologicals; this is, in part, as the management of all medicines lies with the MoH. DLS should work with the MoH to establish a ‘veterinary section’, under the Bangladesh Drug Administration to address this issue.

A review of the legislation will first be required to identify the changes required and then new/revised legislation should be drafted. A review of the distribution of veterinary medicines and biologicals should assess the current pathways of dispatch and use as the network and distribution of medicines seems to be very poorly understood. Consultation should be held with all stakeholders, including veterinarians (public and private sectors), importers/manufacturers, distributors, pharmacies, producers, industry and feed suppliers on how best to review distribution and use and so how to promote prudent use of veterinary medicines and biologicals. A ‘Veterinary Drug Control Programme’ should be established to monitor and manage the use of veterinary medicines and biologicals – this should be managed by the VPH Directorate of DLS and should involve veterinarians taking over responsibility for the distribution and use of most classes of veterinary drugs (e.g. antibiotics, corticosteroids, non-steroidal anti-inflammatory drugs, anaesthetics and most analgesics).

The policy on the registration of veterinary medicines and biologicals should be reviewed with consideration given to whether it is necessary to test all products in country or whether external quality assurance and registration data is sufficient. A policy paper should be prepared by VPH and the Drug Administration with international expertise for consideration by senior managers and the Minister.

A policy should be established with the necessary legal authority to ensure control of the import/manufacture, registration, distribution, sale and use of veterinary drugs and biologicals is under veterinary supervision. All non-veterinarian mechanisms of distribution and sale of most classes of veterinary drugs should be prohibited.

A database to record all registered products (medicines and biologicals) and the quantities produced/imported should be developed and maintained – this will provide a key resource on drug usage and technical details such as withholding periods.

An extension and communications campaign should be implemented to promote prudent drug use by producers.

There is also interest in establishing a programme for monitoring antimicrobial resistance – though important this is a second level task and should follow on from the programme of increased control.

Development of a pilot residue testing programme

A Residue Testing Programme should be progressively introduced. In the initial stage, the programme should focus on export products and concerns around use of 'hormones'. Pending results the programme may be extended to nationally distributed meat and milk products.

A risk assessment of animal products should be undertaken to identify high risk residues and products. Until some data becomes available this assessment will initially be superficial as no good data exists on drug use and the current prevalence of residues. As the Residue Testing Programme becomes active and the prevalence of residues known, the rate and focus of sampling should be modified. Cost effectiveness studies should be carried out to ensure most efficient use of resources.

Consultations should be held with the National Food Safety Laboratory and FAO to undertake testing as they have the capacity and capability to undertake most of the tests that are likely to be required. It is understood that FAO is already assisting with building capacity in this area. It is strongly recommended that these facilities are utilised to increase overall efficiency of service delivery and to eliminate the cost of establishing a DLS facility.

Other activities

Further activities to support veterinary public health are included in the attached Critical Competency Cards for the above topics and for Food Processing and Distribution and Animal Feed Safety. MoH supervises and inspects food processors and distributors. A programme for animal feed safety will also be initiated.

II.2 Human resources

DLS should work with the municipal authorities to identify and register export and national market slaughterhouses. DLS should conduct ante and post mortem inspection at all registered slaughter facilities. Inspection of the slaughter facilities and animal slaughtering should be conducted by the same staff. The table below provides an indication of the staff required to undertake this work.

To undertake these Veterinary Public Health tasks it is estimated that 94 FTE veterinarians and 188 FTE veterinary para-professionals, and 138 support staff FTE will be required at the slaughterhouses. The number of trained veterinarians and specialist veterinary para-professionals required will not be immediately available so this resource will need to be

developed through recruitment and training programmes. Veterinarians play a mandatory role in the surveillance of animal and zoonotic diseases and in ensuring food safety at slaughterhouses. Further support for veterinary public health will be provided for by the expanded field service using a 'cross cutting approach'; these resources are covered under CC II.5A – passive surveillance.

Categories of sites to inspect	Number of sites of this category	Number of days of work per year on site	Number of hours of work per day on site	Veterinarians		Veterinary para-professionals		Support staff	
				on site	total in Full time equivalent	on site	total in Full time equivalent	on site	total in Full time equivalent
Slaughterhouse registration & ante/post post mortem inspection					**93.8**		**187.7**		**137.9**
Export	3	260	8.0	2	6.78	4	13.57	3	10.17
National - livestock	26	260	8.0	2	58.78	4	117.57	3	88.17
National - poultry (large)	5	260	8.0	3	16.96	6	33.91	4	22.61
National - poultry	5	260	8.0	2	11.30	4	22.61	3	16.96

II.3 Physical resources

Each slaughterhouse should provide an office for the veterinary and veterinary para-professional inspectors - so there will be no direct cost to the DLS. The estimated costs of setting up the office cover office equipment (one set per technical officer) to allow the inspectors to conduct their administrative duties and reporting. A specific cost of USD 200 per year is provided for inspection equipment (clothing, knives, etc.) for each of the inspectors. One motorbike should be provided to each slaughterhouse to support operations and access to supplies.

Office equipment should be provided for all technical officers.

II.4 Financial resources

The total financial resources for this pillar are presented in Table 3 (below).

In summary, over five years the total estimated annual budget required is estimated to be USD 1,620,000 with an exceptional budget of USD 282,000. The major budget items are staff salaries of USD 1,010,000 per annum and for consumables at USD 510,000 (communications and consultations, equipment and materials for sampling). USD 50,000 is assigned for the development of a database for the management and control of veterinary medicines and biologicals.

Table n°3 - Sub-Total for strengthening competencies for veterinary public health

SUB-TOTAL VETERINARY PUBLIC HEALTH						
Resource and cost lines	Current Number	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments						
Buildings ()						
Maintenance cost per (sq m)			20	1		
Renovation cost per (sq m)		-	133	25		
Building cost per (sq m)		-	400	25		
Transport (Purchasing cost)						
Motorbikes		39	1,333	6	8,665	8,665
Pick ups		-	60,000	10		
4x4 vehicles		-	93,333	10		
*Database for drug registration and use**		1	50,000	5	10,000	
*Other specific vehicle for Vet. Public Health**						
Staff office equipment set		28	2,000	5	11,200	
Other specific office equipment set		-				
Other specific equipment						
Sub-total Material investments					**29,865**	**8,665**
Non material investments						
Training						
Specialised training (person-months/5 years)		94	1,620			152,280
Continuing education (person-days/year)		1,410	48		67,022	
National expertise (days/5 years)		100	80			8,000
International expertise (weeks/5 years)		12	9,469			113,628
Special funds (/ 5 years) for …						
Sub-total non material expenditure					**67,022**	**273,908**
Salaries						
Veterinarians		94	5,559		522,546	
Other university degree		-	2,917			
Veterinary para-professionals		188	1,612		303,056	
Support staff		138	1,363		188,094	
Sub-total Salaries					**1,013,696**	
Consumable resources						
Administration			20%		202,739	
Travel allowances						
staff within the country (person-days) / year		39	20		780	
drivers within the country (person-days) / year		-	12			
staff abroad (person-weeks) / year			1,500			
Transport costs						
Km or miles Motorbikes / year		187,200	0.03		4,992	
Km or miles cars / year			0.21			
Km or miles 4x4 vehicle / year			0.37			
*Other transport fees**						
*Other transport fees**						
Specific costs						
Targeted specific communication		78			49,600	
Consultation (number of 1 day meetings)		38			19,800	
Sampling collection equipment		9,750			48,750	
*Clinical and autopsy equipment**		282			56,400	
*Pilot studies (annual sample collection and annual testing cost) and Pilot testing programme (sampling and testing)**					130,000	
Sub-total Consumable resources					**513,061**	
Delegated activities						
Sub-total Delegated activities						
Total in	***USD***				***1,623,644***	***282,573***
Total in	***Taka***				***121,773,278***	***21,192,938***

III Strengthening competencies for animal health

The purpose of this section is to present the strategies and the proposed activities for strengthening competencies in animal health. This section includes the activities presented in the Critical Competency Cards II.5, II.6; II.7 and II.13. Links are also made with cross-cutting competencies from the other pillars including the Management of Veterinary Services, Trade, Veterinary Public Health, and Laboratory Services.

III.1 Strategy and activities

The Bangladesh VS urgently needs to develop coherent and science based national programmes in animal health including for disease surveillance, disease control, emergency response and animal welfare. To implement these effectively a clear chain of command from central level through divisional, district and upazila levels down to a functional national field animal health network needs to be developed as a priority.

The strategy for DLS to achieve the identified national priorities in animal health is to target activities in the following key areas:

- Improve passive surveillance and detection of disease outbreaks
- Implement disease control programmes utilising effective active surveillance
- Strengthen emergency preparedness and response
- Implement an animal welfare programme

Passive Epidemiological Surveillance

The Bangladesh VS needs urgently to develop an effective passive surveillance programme with a clear focus on early detection and investigation of suspected outbreaks of notifiable disease. A functioning field network is required to provide this service to livestock owners and to provide information on changing animal health status, reported centrally, as part of the VS.

A functional field network of veterinarians supervising veterinary para-professionals needs to be established with defined roles and responsibilities, sufficient resources to communicate, travel and collect diagnostic samples and with staff appropriately trained in protocols for the recognition, investigation, sampling and reporting of notifiable and suspect emergency/emerging diseases.

Communications is a critical element of an effective passive surveillance programme to generate awareness and commitment from the community, producers, traders and processors. To gain strong support a policy of delivering benefit to the individual producers/traders needs to be established – so that reports of disease benefit the owner by providing risk mitigation and/or treatment to reduce future losses.

Communications are also required with all stakeholders, VS staff and owners, producers, etc. to inform them of their legislated reporting obligations. The payment of appropriate and timely compensation mitigates the possible losses to be incurred if reporting results in culling of animals or market closure – the compensation policy and protocols need to be revised and communicated to ensure that this is accomplished.

The current national web based information management system should be reviewed and upgraded to facilitate the regular reporting and analysis by the central and divisional Epidemiology Units of passive surveillance data, including disease data sourced from both on farm investigations and slaughterhouse inspections. Note that it is absolutely critical to report collated case and epidemiological findings with risk mitigation measures back to the field and lower levels of the VS.

An international animal health information consultant should be recruited to lead the review and redesign of the information management system. National consultants should then be

employed to develop and implement the enhanced system according to the design specifications. Considerable training on outbreak investigation, sampling and field investigation, communications and information management will be required.

Active Surveillance and Disease Control

The disease control programmes currently being implemented in Bangladesh lack a clear vision for sustainable control and public benefit, do not have well documented strategies and incorporate only limited operational planning. There is a need for a review of disease control policy with a rationalisation of whether the programmes should be sustainable with long term benefits to the public (public good), or have a social focus on individual benefit (private good). For diseases that are primarily for private good the cost of supplying and delivering vaccine should increasingly be borne by the owners/producers. A transition phase may be adopted.

As part of the review of the disease control programmes the effectiveness of the programmes should be assessed considering the cost effectiveness of the activities undertaken. All disease control programmes should be subject to ongoing reviews and consider the prevalence of disease, the coverage of control measures (reporting/detection, vaccination, treatments and biosecurity measures) and their effectiveness (vaccination sero-surveillance, disease trends over time).

It is important to consider synergies and efficiencies of programme delivery and the commitment from owners and producers. For example, it is much more cost efficient to deliver multiple vaccinations at the same time and can gain better farmer support so haemorrhagic septicaemia vaccination should be combined with FMD and anthrax vaccination (in affected areas).

To assess the baseline and changing prevalence of disease, (i.e. any impact from a disease control programme) active surveillance is required. To be reliable and reproducible active surveillance programmes must be carried out with a well-documented methodology including proper randomisation of target populations/animals and formal reporting of the results.

Initially Bangladesh should focus on the control of only a few key diseases, rather than the current approach of doing little (e.g. active surveillance, vaccination, movement control) across a wide range of diseases with no sustainable affect. Active surveillance or ‘surveys’ should be conducted annually for these selected major disease control programmes to assess progress.

Target diseases for control (and therefore the focus of active surveillance) should be selected following a detailed feasibility study that incorporates social (including human health) and economic impacts of the disease, surveillance, testing and vaccination costs and effectiveness, and stakeholder/donor interest. Candidate priority diseases include PPR, rabies and anthrax.

For active surveillance of the target diseases, demographic baseline information is required (e.g. susceptible livestock population and production systems by number and distribution) and an epidemiologically sound active surveillance programme should be designed and documented, field and laboratory staff trained and equipped, and data collation, analysis and reporting undertaken.

For vaccination campaigns sources of vaccine should be reviewed for quality, quantity and cost. Imported vaccine could supplement locally manufactured product, or even replace it if there are serious quality issues – though increased costs and a budget review need consideration. Cold chain monitoring and vaccination sero-surveillance should be a part of every campaign. Industry communication and consultation and public awareness should be undertaken, and industry support sought where feasible.

Disease control activities should also be aligned with any quarantine and border checkpoint activities as per OIE and WTO/SPS requirements. For example the sanitary status of India and Bangladesh is broadly the same and so under the SPS agreement there are no grounds

for restricting trade in animals and animal products. However this can be modified if Bangladesh were to implement a well-documented and effective disease control programme.

Consideration should be given to working with the private sector in FMD control. An appropriate initial focus for the high cost FMD vaccine in Bangladesh might be working in a limited geographical area to support proposed compartmentalisation efforts of the export beef trade.

Emergency Response

Having the capability to mount an effective emergency response requires an ongoing commitment to a vision of disease control with enabling legislation, emergency preparedness and response systems, risk mitigation, the provision of resources and critically the definition and training of staff in their expected roles and responsibilities. In an emergency there is little time for deliberation so as much as possible systems and likely decisions must be developed beforehand. The development of an effective emergency preparedness and response programme takes considerable time and requires an ongoing commitment.

Following the outbreaks of HPAI considerable investment was made in developing detection and response systems. These systems should be reviewed and developed into robust generic response systems capable of covering other diseases, species and sectors.

An emergency preparedness and response programme should be developed with staff dedicated to the task – it is a major commitment and part-time staff will not be sufficient.

A documented procedure to determine when a sanitary emergency exists should be defined, legislative powers reviewed and amended where necessary, financial resourcing arrangements developed (including procedures for the timely payment of compensation), contingency planning expanded and staff training undertaken.

When the emergency preparedness programme has been developed it should be assessed via a national or sub-national simulation exercise for a priority emergency disease.

Animal Welfare

A new Animal Welfare Bill has been drafted – this should be reviewed and aligned with OIE standards. When promulgated Bangladesh should develop an awareness and compliance programme, targeting high risk activities and sectors e.g. transport of poultry or animals.

III.2 Human resources

To provide an indication of the human resources required to operate an effective animal health programme with competent passive surveillance and sustainable disease control a number of assessment tools were used.

Estimate of Veterinary Livestock Units

	Number of animals					
	Bovines	**Small Ruminants**	**Buffalo**	**Duck**	**Poultry**	**Total**
VLU	**1.00**	**0.10**	**1.00**	**0.01**	**0.01**	
Bangladesh	23,488,000	28,645,000	1,457,000	48,861,000	255,311,000	357,762,000

Note that the number of Veterinary Livestock Units (VLUs) were not available by division, district or upazila so the total numbers for the country were used as a reference. Though not ideal this is acceptable in a country with such universally intensive agricultural development – the country is assumed to be homogeneously populated with livestock.

Estimate of the maximum workload in man days per year to implement the major priority disease control programmes

Step B1: Estimation of the workload required to implement all official activities related to animals per FVS					
Number of rounds per year	Activity	Species	Targeted number of animals b	Average animals per day c	Total number of days d= (b/c)
2	PPR/goat pox vaccination	sheep and goats	2,500,000	200	25,000
2	Poultry disease vaccination (ND, fowl cholera, Gumboro, Salmonella, fowl pox, Marek's disease)	native and commercial poultry	40,000,000	500	160,000
2	Ducks vaccination (duck plague)	non commercial poultry	7,200,000	500	28,800
1	Anthrax vaccination	cattle/buffalo/sheep/goats	8,000,000	150	53,333
1	Rabies vaccination	dogs	200,000	20	10,000
2	FMD vaccination	cattle/buffalo/sheep/goats	5,000,000	150	66,667
					343,800

The field animal health network at the upazila and union council levels was estimated to require a staff of 1,500 veterinarians and 7,550 veterinary para-professionals. This field network would be able to provide passive surveillance and deliver disease control programmes – based on the number of work days required as indicated in the table above. Establishing this network would provide an average of three veterinarians for every upazila and more than one veterinary para-professional for every union council.

Laboratory staff should not be routinely collecting samples, as is the current practice, but should train field veterinary and veterinary para-professional staff in this task.

The current focus on the provision of clinical services to farmers provides benefits in that VS field staff establish networks and can examine and sample sick animals – though it is understood this only applies to livestock in close proximity to an animal health office.

The other essential staffing element relating to the animal health pillar is the development of epidemiological units at central and divisional levels. These units should have the scale and capacity to undertake surveillance and disease control programme design, data collation and analysis, prepare reports and make recommendations on programme revisions. This resource is covered under the Management Pillar and specifically under CC I.6A

Note also that the there is no substantive private veterinarian presence in Bangladesh at this time.

III.3 Physical resources

The field infrastructure of the DLS already exists and should be further developed, updated and maintained as required. According to the DLS, half the upazilas have inadequate/no facilities and these need to be provided. DLS provides a standard 172 m^2 for the upazila offices so whole network, 86,000 m^2 to be maintained with 43,000 m^2 new offices to be built. Note district, division and central offices are covered under the management pillar.

In addition other equipment has been estimated at 250 microscopes (half the upazilas are already equipped), 500 generators, autopsy kits and equipment for all veterinarians and veterinary para-professionals. Three cold vans for vaccine delivery and vaccine fridges, cold boxes and temperature data loggers (to monitor vaccine cold chain) are also recommended.

Adequate, appropriate transport is essential to ensure sick animals more distant from animal health offices also receive an animal health service, are accessible and can be examined for notifiable or emerging animal diseases. In consultation with DLS it was estimated that 7,150 motorbikes, 400 pick-ups and 30 4X4 vehicles are required – some vehicles are already available. This number will give every technical officer access to transport.

An animal health information system is also required and investment will be required in the current system to enable to meet the greater needs of a more competent VS.

III.4 Financial resources

The total financial resources for the Animal Health pillar are presented in Table 4 (below).

Operational funding for the field networks is the main limiting factor for the animal health programme and the achievement of DLS goals. Currently DLS is not able to achieve adequate vaccination coverage to have a sustainable impact.

The annual budget required is estimated to be USD 47,400,000. Consumable resources for this pillar are estimated at USD 12,600,000, including maintenance and running cost of vehicles (USD 5,400,000), administration costs (calculated as 20% of total salary at USD 5,000,000), vaccines (USD 2,300,000) other treatments (USD 1,000,000) sampling kits (USD 540,000) and emergency preparedness exercise (USD 95,000).

Capital investment is high for animal health as this pillar provides the core field service with offices, transport and equipment. It is estimated that over five year a capital investment of USD 34,000,000 will be required. This will be made up of buildings (USD18,400,000), vehicles (USD 15,000,000), other equipment such as computers, fridges and generators (USD 330,000). High level training is also considered as a capital item and is estimated to require an investment of USD 350,000 for epidemiology training and designing the animal health information system,

Table n°4 - Sub-Total for strengthening competencies for animal health

SUB-TOTAL ANIMAL HEALTH						
Resource and cost lines	Current Number	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments						
Buildings ()		172,000				
Maintenance cost per (sq m)		86,000	20	1	1,720,000	
Renovation cost per (sq m)		43,000	133	25	228,760	4,575,200
Building cost per (sq m)		43,000	400	25	688,000	13,760,000
Transport (Purchasing cost)						
Motorbikes		7,150	1,333	6	1,588,492	1,588,492
Pick ups		400	60,000	10	2,400,000	12,000,000
4x4 vehicles		30	93,333	10	279,999	1,399,995
*AHIS database & cool vans**					31,329	92,357
*AHIS computers & vaccine fridge**					78,429	177,857
Staff office equipment set		1,000	2,000	5	400,000	
Other specific office equipment set		-				
Other specific equipment						
*Microscopes**		250	500	10	12,500	62,500
*Generators**		571	1,000	5	100,000	
Sub-total Material investments					**7,527,508**	**33,656,401**
Non material investments						
Training						
Specialised training (person-months/5 years)		128	1,620			207,360
Continuing education (person-days/year)		45,250	48		2,150,883	
National expertise (days/5 years)		400	80			32,000
International expertise (weeks/5 years)		12	9,469			113,628
Special funds (/ 5 years) for …						
Sub-total non material expenditure					**2,150,883**	**352,988**
Salaries						
Veterinarians		1,500	5,559		8,338,500	
Other university degree		230	2,917		670,910	
Veterinary para-professionals		7,550	1,612		12,170,600	
Support staff		2,855	1,363		3,891,365	
Sub-total Salaries					**25,071,375**	
Consumable resources						
Administration			20%		5,014,275	
Travel allowances						
staff within the country (person-days) / year		-	20			
drivers within the country (person-days) / year		-	12			
staff abroad (person-weeks) / year			1,500			
Transport costs						
Km or miles Motorbikes / year		34,320,000	0.03		915,200	
Km or miles cars / year		6,000,000	0.21		1,280,000	
Km or miles 4x4 vehicle / year		540,000	0.37		201,600	
Medicines for clinical services/treatments		1	1,000,000.00		1,000,000	
Vaccines		1	2,300,000.00		2,300,000	
Specific costs						
Targeted specific communication		564			364,000	
Consultation (number of 1 day meetings)		1,013			303,900	
Sampling collection equipment	108,600				543,000	
Kits, sampling equipments, and other materials (AH1, AH2, AH4)					541,250	
*Simulation exercices and baseline stores of emergency (AH3)**					95,000	
Sub-total Consumable resources					**12,558,225**	
Delegated activities						
Sub-total Delegated activities						
Total in	***USD***				***47,307,991***	***34,009,389***
Total in	***Taka***				***3,548,099,336***	***2,550,704,171***

IV Strengthening competencies for veterinary laboratory diagnostics

The purpose of this section is to present the strategies and the proposed activities for strengthening veterinary laboratories. This section includes the activities presented in the Critical Competency Cards II.1A, II.1B and II.2. Links are also made with cross-cutting competencies from the other pillars including the Management of Veterinary Services, Trade, Animal Health, and Veterinary Public Health.

The role of the Veterinary Laboratory Services is to support livestock production, animal health and food safety by delivering veterinary diagnostic procedures. The services offered should be updated and expanded as technology and expectations change.

IV.1 Strategy and activities

In general there are a sufficient number of veterinary diagnostic laboratories at central, divisional, district and upazilla levels. Based on the 2011 PVS evaluation and verbal reporting during this mission, most of the existing laboratories at the central and divisional levels are in a moderate state of repair, whilst many of the lower level labs are in a poor state of repair and some require upgrading of water and power supplies. An audit should be conducted of all the laboratories to prepare a national and field laboratory repair and maintenance plan to include all laboratories, including the VPH laboratory, down to the upazilla level.

The major problem with laboratory services is that they are all seriously underutilised. The main reason for this is that there are insufficient numbers of field staff, and most of these are veterinary para-professionals, who do not always report suspected cases of notifiable diseases and rarely collect diagnostic samples. Consequently, very few samples are submitted to the laboratories; in addition laboratory staff generally travel and collect the diagnostic samples. The solutions to these problems are covered in more detail under CCs II-5A, II-5B and II-8 in this report (passive and active disease surveillance and VPH).

The overall strategic objectives for the veterinary laboratory network are:

- Accurate diagnostic information is available to DLS for all animal diseases subject to national control programmes and most zoonotic diseases
- Adequate laboratory infrastructure and functional equipment is available
- All laboratories at central and divisional level have a QA management plan in place and the central laboratories are progressing towards ISO 17025 accreditation.

Improved access to veterinary laboratory diagnosis

Currently almost all diagnostic samples are being collected by laboratory staff. This is highly inefficient as it limits and delays sample collection; also these staff are trained to work in the laboratory not to undertake field work. As more cases of notifiable diseases and suspected zoonotic diseases are reported and investigated, with sampling conducted by field staff, all the laboratories will be better utilised.

The veterinary para-professionals working at the union council level and all veterinarians and veterinary para-professionals providing clinical services will need to be trained in:

- Disease reporting – the use of a standard format for reporting suspect disease outbreaks of notifiable diseases and zoonoses
- The conduct of outbreak investigations and the collection, handling and transport of samples safely and efficiently to ensure that suitable diagnostic samples reach the laboratories; the risk of causing human infection through inappropriate handling of dangerous pathogens must be avoided (reference IATA/WTO/IHR biosecurity protocols for sample transport)
- The use of personal protective equipment to reduce the risk to staff and others

Laboratory test numbers are estimated according to disease surveillance, disease control and veterinary public health programmes, excluding residue testing, as follows:

Type of analyses	Number	Programmes						
		FMD	PPR/goatpox	Anthrax/HS	ND/AI	Rabies	Food hygiene	Passive surv
Immunological tests								
Agglutination or haemagglutination	**9000**				9000			
ELISA and ELISA-based assays	**10800**	5300	4400	100		1000		
Immunofluorescence (dir. or indir.)	**200**					200		
Gene sequencing								
PCR	**1400**	300	600		500			
Anatomical pathology								
Post mortem: large animals	**2500**							2500
Post mortem: medium animals	**10000**							10000
Post mortem: poultry	**20000**							20000
Parasitology								
Direct microscopic examination	**50200**			200				50000
Blood test	**10000**							10000
Food microbiology								
Standard 5 bacteria	**500**						500	
Specific bacteria (List, Salm...)	**50**						50	
Totals	**114650**	5600	5000	300	9500	1200	550	92500

Suitability of laboratory infrastructure

The DLS should first conduct an audit of all veterinary diagnostic laboratories and develop an inventory of equipment against the required laboratory capabilities and capacities. (Note that this will depend on the development of the disease surveillance and control programmes and on veterinary public health activities – see particularly CCs II.5, II.7 and II.8) On the basis of the audit report, the DLS should then develop a plan to make all necessary structural repairs to the laboratory buildings and to replace or repair non-functional equipment. The DLS should then develop a national laboratory routine maintenance plan to ensure that laboratories are kept in a good state of repair and have the necessary functional equipment.

Each laboratory should be required to identify the required quantities of reagents and consumables to undertake the tests and analyses which are expected under the disease surveillance, disease control and veterinary public health programmes. The requirements for reagents and consumables should then be aggregated throughout the laboratory networks so that a national procurement plan for laboratory reagents and consumables can be developed and implemented.

The safe disposal of waste material from laboratories is often neglected. In order to satisfy quality assurance requirements all laboratories should be equipped with the necessary tools to allow for the safe disposal of all types of waste material. In the case of biological waste, smaller laboratories may only require to be equipped with an autoclave, whilst larger laboratories dealing with post-mortems will also require incinerators.

Laboratory quality assurance

CDIL and BLRI are aware of the need to introduce Quality Assurance systems and have started to implement Standard Operating Procedures, which, in time, will allow them to become ISO 17025 accredited.

There is an urgent need for all laboratories below the levels of the CDIL and BLRI to start to introduce Quality Assurance management plans. Quality Assurance helps ensure that laboratory test results are reliable and accurate, that the laboratories workplace is safe for staff and that dangerous pathogens are adequately contained.

Quality Assurance managers at the central level (BLRI & CDIL) should provide training to lower level laboratory managers on how to develop Quality Assurance/bio-safety management plans. Risk analyses will be a first step in this process. The DLS should then appoint Quality Assurance managers to implement a Quality Assurance management plan at each laboratory. SOPs will be required.

An important component of any bio-safety management plan will be to have the necessary knowledge and skills and be equipped to handle and transport laboratory samples and specimens safely and efficiently. It will therefore be necessary to train FDIL, district, upazilla and union council field staff on safe collection, handling and transport of laboratory samples.

The CDIL and BLRI already have a comprehensive programme for undertaking proficiency testing for avian influenza, FMD and brucellosis. In addition to this it will be necessary for the CDIL and/or the BLRI to undertake regular ring testing in accordance with a strict protocol with each of the FDILs – especially for any tests being used for the purpose of international veterinary certification or for notification of Bangladesh's animal health status.

It is important that all laboratory protocols are defined as SOPs which are then put to use. It is essential that SOPs require the routine use of positive and negative controls. This will support accreditation.

IV.2 Human resources

Quality managers are required at each laboratory. DLS should appoint FDIL, district and upazilla level Quality Assurance managers. CDIL and BLRI should provide Quality Assurance management trainers. QA managers should then organise QA management teams at each laboratory.

All field personnel, including the veterinary para-professionals at the union council level should be trained to collect, handle and transport laboratory samples for the confirmation of notifiable animal diseases and suspect zoonotic diseases.

IV.3 Physical resources

Construction of a new combined CDIL and Veterinary Public Health Laboratory. Physical repairs are required for the lower level laboratories to create a safe and appropriate workplace and to allow accurate diagnostic tests and analyses to be performed.

Routine equipment and infrastructure maintenance plans are required for all the laboratories.

IV.4 Financial resources

The total financial resources for this pillar are presented in Table 5 (below).

In summary, over five years the total estimated annual budget required is estimated to be USD 2,030,000 with an exceptional budget of USD 700,000. The major budget items are staff salaries of USD 1,100,000 per annum and for consumables at USD 750,000 (communications and consultations, equipment and materials for sampling). Capital investment covers new buildings, refurbishments and equipment replacement.

Table n°5 - Sub-Total for strengthening competencies for veterinary laboratory

SUB-TOTAL VETERINARY LABORATORIES						
Resource and cost lines	Current Number	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments						
Buildings ()		700				
Maintenance cost per (sq m)			20	1		
Renovation cost per (sq m)		-	133	25		
Building cost per (sq m)		700	400	25	22,400	448,000
Transport (Purchasing cost)						
Motorbikes		-	1,333	6		
Pick ups		-	60,000	10		
4x4 vehicles		-	93,333	10		
*Other specific vehicles for Vet. Laboratories**					44,000	
*Other specific vehicles for Vet. Laboratories**					14,000	70,000
Staff office equipment set		100	2,000	5	40,000	
Other specific office equipment set		-				
Other specific equipment						
*Other equipment for Vet. Laboratories**						
*Other equipment for Vet. Laboratories**						
Sub-total Material investments					**120,400**	**518,000**
Non material investments						
Training						
Specialised training (person-months/5 years)		25.0	1,620			40,500
Continuing education (person-days/year)		1,195.0	48		56,802	
National expertise (days/5 years)		-	80			
International expertise (weeks/5 years)		15.0	9,469			142,035
Special funds (/ 5 years) for …						
Sub-total non material expenditure					**56,802**	**182,535**
Salaries						
Veterinarians		177.0	5,559		983,943	
Other university degree		12.0	2,917		35,004	
Veterinary para-professionals		50.0	1,612		80,600	
Support staff		-	1,363			
Sub-total Salaries					**1,099,547**	
Consumable resources						
Administration			20%		219,909	
Travel allowances						
staff within the country (person-days) / year		-	20			
drivers within the country (person-days) / year		-	12			
staff abroad (person-weeks) / year			1,500			
Transport costs						
Km or miles Motorbikes / year			0.03			
Km or miles cars / year			0.21			
Km or miles 4x4 vehicle / year			0.37			
*Other transport fees**						
*Other transport fees**						
Specific costs						
Targeted specific communication		-				
Consultation (number of 1 day meetings)		-				
Sampling collection equipment		-				
*Other costs for Vet. Laboratories**					531,000	
*Other costs for Vet. Laboratories**						
Sub-total Consumable resources					**750,909**	
Delegated activities						
Sub-total Delegated activities						
Total in	***USD***				***2,027,659***	***700,535***
Total in	***Taka***				***152,074,405***	***52,540,125***

V Strengthening competencies for general management and regulatory services

The purpose of this section is to present the strategies and the proposed activities for strengthening general management, operations and regulatory support of the Veterinary Services. This section includes the activities presented in the Critical Competency Cards I.2, I.3, I.4, I.5, I.6, I.11, II.3, III.1, III.2, III.3, III.4, III.5, III.6, IV.1, IV.2 and IV.3. Links are also made with cross-cutting competencies from the other pillars including the Trade, Animal Health, Veterinary Public Health, and Laboratory Services.

V.1 General organisation of the Veterinary Services

The Bangladesh Veterinary Services need to develop, strengthen and separate regulatory aspects of veterinary services provision from both livestock production focused activity and the provision of clinical services to producers. This should start with a review of the organisational structure of the DLS. The current structure compromises the integrity of VS delivery and results in a weak 'chain of command'.

The core VS regulatory functions, including animal health and disease control, veterinary public health and trade and border control should have effective chains of command under the CVO and down to where the field/operational activity takes place – on farms, in slaughterhouses and at the border inspection posts.

The proposed new organisational structure for the Bangladesh VS addresses the weak chain of command of the present system and clearly segregates out the VS from the livestock production and extension services. See page 15 for existing structure.

The proposed Directorate General of Veterinary Services would be the Veterinary Authority of Bangladesh and the position of executive director (Director General) would be held by a veterinarian. The Directorate General of Veterinary Services would operate through a number of Directorates – Administration (including human resources and legislation), Animal Health (including disease control), Veterinary Public Health (including food safety), Research and Trade. The Directorates would then deliver services through a series of Departments as indicated in the above diagram.

Note that the animal health field service, a critical building block for an effective veterinary service, would be managed directly by the Clinical Services Department under the Directorate of Animal Health. Slaughterhouse registration, inspection and ante and post mortem inspection would be managed under the Directorate of Veterinary Public Health. The veterinary role in veterinary drugs regulation could either sit within the Directorate of Veterinary Public Health or the Directorate of Research – the final organisation needs to be considered in terms of ensuring a coherent and coordinated management structure with a balance of activity between the different Directorates.

Proposed new organisational structure

V.1.A Technical independence

The Bangladesh VS should ensure technical decision-making is based on scientific considerations through addressing the current weak technical chain of command, the risks with conflicts of interest, low salary levels and resulting secondary employment, particularly in the areas of field services, border posts and abattoir inspection.

The CVO should be empowered to immediately report OIE listed disease confirmations, rather than reporting being managed by higher levels of government.

Declaration of possible conflicts of interest generally and specifically with secondary employment should be legally required. An SOP should be developed and a template developed for reporting; reporting updates should be required annually.

Provisions for the undertaking of private practice by field veterinarians and veterinary para-professionals should be reviewed with rules specified, communicated, monitored and complied with.

DLS should take over slaughterhouse licencing and meat inspection as an independent third party to reduce the risks of conflict of interest in this work being undertaken by the city corporations, which also own the slaughterhouses.

Merit based recruitment and promotion policies and procedures should be developed and implemented urgently.

V.1.B Coordination

The Bangladesh VS should develop a clear chain of command for regulatory veterinary functions within DLS. This is a critical issue and requires urgent attention.

In animal health, this requires a restructuring so that a veterinary technical chain of command under the CVO is extended down to veterinarians who supervise veterinary para-professionals in the field, with policies and programmes delegated down the chain and disease reporting, field data and feedback reported back up the chain.

For veterinary drug regulation the DLS needs to first coordinate with the Drug Administration via its new 'veterinary section'. In the medium to long term, it is important that the distribution and use of veterinary drugs come under more direct control of veterinarians rather than pharmacists with no animal health background. This is especially important if private veterinary practice is to develop as there will be a significant dependency on income from veterinary drugs.

In food safety, DLS should take over regulation of slaughterhouses and ante and post mortem inspection as per its legislation, in collaboration with the city corporations and the new Food Safety Authority.

DLS should create a dedicated Trade Directorate under the CVO to manage animal health status and sanitary requirement notifications (OIE, WTO-SPS), export certification and border control and inspection, in close consultation with the Ministry of Commerce.

DLS should continue to strengthen its coordination with the Ministry of Health on zoonoses, including diseases other than HPAI (e.g. rabies and anthrax) and also to reduce the risks of increasing antimicrobial resistance.

V.1.C Veterinary practice organisation and policy

The Bangladesh VS should clarify the role of DLS in providing clinical services to producers by setting and implementing a clear policy on veterinary (and not pharmacy) distribution and use of veterinary drugs. The policy on provision of clinical services by staff outside working hours should be reviewed. In the longer term, the

VS needs to clarify a policy on support and development of private veterinary practice in Bangladesh.

V.1.D Official delegation

The Bangladesh VS should explore options for delegating some activities to the private veterinary sector (e.g. rabies vaccination to small animal practitioners or poultry sampling to poultry company veterinarians) and consider policies to expand the private veterinary sector in the future through supporting them with officially delegated tasks.

Legislation will be required to allow formal delegation so a review of the authority of the VS to delegate will be required with revision/addition to legislation as necessary.

V.2 Cross-cutting competencies of the VS

V.2.A Qualification of VS staff

The Bangladesh VS should develop a standardised national curriculum for veterinary and veterinary para-professional training with reference to OIE standards; this should be implemented with the Bangladesh Veterinary Council.

Much excellent work has already taken place with the development of the Bangladesh Veterinary Council veterinary education strategy document; however this plan has not yet been implemented and now requires urgent action.

Veterinary para-professionals should also be brought under the control of the Bangladesh Veterinary Council via registration and the setting of training standards and a Code of Conduct.

The Bangladesh VS should assist the highest performing veterinary school(s) implement an OIE educational twinning program through identification and exploration of options with a developed country veterinary school and the OIE.

V.2.B Management of operation and resources

The Bangladesh VS should improve allocation of resources by consolidating and documenting programme plans, developing SOPs, effective use of data records, analysis and reporting, and through continual monitoring and evaluation.

Strategic and operational plans with appropriate management systems should be developed urgently for all priority work programmes such as for disease control and food safety. Databases need to be developed to improve record keeping and monitoring of staff (numbers, job descriptions, capabilities and training) and for physical resources management (inventories and maintenance records and schedules). A consolidated financial management system is required and should meet the standards set by central government. A national animal health information database is required.

V.2.C Communication

Currently Bangladesh has no coordinated programme for communications and no communications focal point. Note that communications are a key activity to engage with stakeholders and to ensure their support. Communications should be a dynamic activity responding to need and changing situations. Communications should be undertaken before any disease surveillance and disease control programmes are initiated; they are also essential in developing emergency preparedness and response mechanisms.

The Bangladesh VS should appoint a communications contact point to work closely with the Communications Unit within MoFL to provide regular communications with stakeholders, using all relevant media.

A budgeted media communications strategy and operational plan should be developed. A regular VS newsletter should be distributed to key stakeholders to keep them informed of disease events and programme activities. The DLS website should be revised with the target audience defined and then updated regularly. Developing a social media presence should be considered if feasible.

V.2.D Consultation with stakeholders and joint programme

The Bangladesh VS should develop formal consultation mechanisms with the poultry and export beef industries initially, and then with a broader range of interested parties.

A joint government-industry consultative committee should be established that meets regularly, works to an agenda, and produces minutes that are cleared by all parties. Options should be explored on developing joint programmes with capable industry sectors such as building on from the HPAI programme with the poultry industry and developing FMD compartmentalisation with the export beef industry.

Smallholders should be assisted to develop organised representation to bring their views and inputs on policies and programmes that will affect them. For example, a supported sheep and goat owner organisation should be consulted on the development of a PPR control programme.

V.2.E Official representation

The Bangladesh VS should attend relevant international meetings with enhanced levels of preparation, participation and reporting back. Budget should be provided so that one person, in addition to the CVO can attend the OIE World Assembly and provide support for more active participation.

V.2.F Legislation

There are a number of important gaps in the existing legislation for compliance with OIE standards, as set out in Chapter 3.4 of the Terrestrial Animal Health Code. A comprehensive review of the legislation was beyond the scope of the PVS Gap Mission, however some of the more important gaps and shortcomings of the existing legislation are provided here. It is recommended that a detailed review of the veterinary legislation, with respect to OIE standards be conducted through an OIE Veterinary Legislation Identification Mission.

In summary:

In some cases, powers and authority to make technical decisions and delegate responsibility have been vested in the Director General of the DLS who is not always a veterinarian, whilst in others, for instance the power to ban or regulate the import of animals or animal products, is given to the Customs Authority under the Import and Export Control Act (1950) and the Customs Act (1969). Such cases could compromise the technical independence of the DLS.

In the case of food safety of animal products, the Food Safety Authority (of the Ministry of Food) has been given powers to appoint Food Safety Inspectors. These Food Safety Inspectors are authorised to perform many of the functions ascribed to Veterinary Inspectors appointed by the DLS under provisions in the Animal Slaughter and Quality of Meat Act (2011) for inspection of slaughter facilities, inspection, sampling and testing of meat and meat products and hygiene inspection of wholesale and retail meat outlets. In the case of milk processing facilities, inspection, sampling

and testing of milk and milk products, in the Animal Diseases Act (2005) and Rules (2008). This duplication results in ambiguity of authority and reporting.

The Animal Diseases Act does not have sufficient provisions to require the DLS to establish an animal disease information management system for recording and analysing notifiable and other animal disease information. There is no requirement in any of the current legislation for the DLS to use risk analysis in setting standards for importation of animals and animal products.

Currently, there are no provisions in the existing legislation for establishing an animal or animal product identification, traceability or movement control system. There are also no provisions for establishing compartments or zones in accordance with OIE standards.

The DLS is only weakly represented on the Pharmacy Board and there is currently insufficient regulatory control over the registration, distribution, sale and use of veterinary medicines or biologicals in Bangladesh. As private veterinary practise develops and the commercialisation of poultry and dairy farming grows in volume there will be an urgent need to address the regulation of veterinary drugs in order to avoid the misuse of medicines. It is rumoured that livestock keepers are fattening beef cattle through the use of 'steroids' though no evidence was provided by the VS.

In the case of the regulation of the practise of veterinary medicine, the Veterinary Practitioners Ordinance (1982) is being well implemented by the Bangladesh Veterinary Council, though few disciplinary measures are imposed or any formal evaluation of veterinary education standards. This legislation does not empower the Council to register or regulate veterinary para-professionals. It is recommended that the Ordinance is updated and new regulations created in order to ensure the safety and quality of veterinary practice by veterinary para-professionals working under the supervision of a registered veterinarian. In addition no provision is made for Continuing Professional Development.

In other respects, where good legislation does exist, the DLS is not sufficiently well structured or well-staffed to perform many of its regulatory functions. A good example is that there are currently no properly trained officers acting as meat inspectors under the authority of the DLS, whilst this authority does exist under the Animal Slaughter and Quality of Meat Act (2011).

The first step in the process for dealing with non-enforcement of existing legislation should be a review of the DLS structure and functions, as recommended elsewhere in this report. This review should pay particular attention to making adjustments to the existing organisational structure of the DLS and provide sufficient numbers of appropriately qualified personnel to enforce and perform all the more important regulatory functions of the DLS; these include animal health, animal disease notification and outbreak investigation, reporting and recording of animal disease information, disease prevention and control, food safety of animal products and the control of hygiene at meat and milk processing facilities, the control of the registration, distribution, sale and use of veterinary medicines and biologicals, border control and the setting and enforcement of standards for the importation of animals and animal products, export certification of animals and animal products and animal welfare.

In view of the above mentioned examples of some of the shortcomings in the veterinary legislation it is recommended that the DLS should establish a Veterinary Legislation Working Group with a lawyer with legal drafting experience, co-opted from the Office of the Attorney General, dedicated to reviewing and revising the existing legislation to bring it in line with OIE and other international standards. There will be a need for close collaboration with other government institutions, such as the Food Safety Authority, the Ministry of Health, the Ministry of Customs and the Ministry of

Commerce as well as private sector stakeholders with an interest in the livestock industry.

The DLS currently has no mechanism for measuring the impact of its legislation nor for assessing compliance. It is recommended that the DLS should establish a formal mechanism for impact assessment both prior to and after promulgation of legislation.

V.3 Human resources

This General Management and Regulatory Services component includes all central level staff who coordinate national policies and programmes in animal health, trade and veterinary public health, and also divisional and district veterinary managers and staff.

Estimated human resources required

Positions identified	Veterinarians	Other university degree	Veterinary para-professionals	Support staff
Internal coordination (chain of command)	**249**	**79**	**259**	**521**
Central level	**29**	**8**	**39**	**66**
General Directorate/Administration	5	4	9	18
Director/CVO	1			
Manager Central Services, Finance and Administration		1		
Head HR & Training		1		
Head Communications		1		
Head Legislation		1		
Technical Support Officer	4		9	
Support Staff				18
Animal Health Directorate	10	0	10	20
Manager AH	1			
Head AH Field Services	1			
Head AH Epidemiology	1			
Head Emergency Response	1			
Head Animal Welfare	1			
AH Epidemiologist	2			
Technical Support Officer	3		10	
Support Staff				20
Veterinary Public Health Directorate	3	0	5	10
Manager VPH	1			
VPH Epidemiologist	1			
Technical Support Officer	1		5	10
Support Staff				
Trade Directorate	8	1	9	18
Manager Trade and International Affairs (SPS contact)	1			
Head Borders	1			
Head ID & Traceability	1			
Head Imports/Export (certification)	0.5			
Head zoning/compart	0.5			
Epidemiologist/Risk Assessment	1	1		
Technical Support Officer	3		9	
Support Staff				18
Research Directorate	5	3	6	12
Manager Laboratories	1	1		
Manager Vaccine Production	1	1		
Manager Veterinary Medicines, Biologicals and Residues	3	1		
Technical Support Officer			6	
Support Staff				12
Field level of coordination	**220**	**71**	**220**	**455**
Divisions	28	7	28	7
Divisional Veterinary Manager	1			
Divisional Head AH Field Services	1			
Divisional Epidemiologist	1			
Divisaional Head VPH	1			
Divisonal Head - Administration		1		
Technical Support officers			5	
Support Staff				10
Districts	192	64	192	448
District Veteinary Manager	1			
District Head Field Services	1			
District Head VPH	1			
District Head - Administration		1		
Technical Support officers			4	
Support Staff				8

The PVS Gap Analysis estimates that some 250 veterinarians and 250 veterinary para-professionals are required for central/field management and coordination role in DLS. More than 500 support staff would also be required.

All staff of the VS should have access to Continuing Education annually. Specialist training will also be required – particularly to develop leadership, planning and management capabilities and to undertake epidemiology and programme design and review and risk analysis

V.4 Physical resources

Central VS staff require sufficient office buildings, equipment and transport to undertake their planning and coordination roles.

Estimated physical resources required – buildings and vehicles

Location	Buildings (sq m)	Motorbikes (#)	Pick ups (#)	4x4 Vehicles (#)
VS management	**16,600**	**232**	**139**	**11**
Central level	**1,000**	**12**	**4**	**4**
Divisions	**2,800**	**28**	**7**	**7**
Districts	**12,800**	**192**	**128**	**0**

Although no new buildings are required for the central office of the VS, major refurbishments are required at both divisional and district levels – estimated at half the total building area (divisions have 400 m^2 allocated, and districts 200 m^2). Annual building maintenance costs are estimated at USD 370,000 per year, approximately 380 vehicles will be required with significant running costs.

Technical staff will all require an office with a desk, computer, etc.

V.5 Financial resources

The total financial resources for the Management pillar are presented in Table 6.

This pillar includes resources for administrative and management activities (including management of technical programmes) conducted at DLS headquarters and at the Divisional and District Veterinary Offices. As for the Human and Physical Resources sections above, resources directly linked to the field, veterinary public health or laboratories are included in the previous pillars (Trade, Veterinary Public Health, Animal Health and Laboratories).

An annual cost of USD 5,750,000 will be required to cover salaries (USD 2,700,000), building and vehicle costs (USD 1,480,000), vehicle running costs (USD 480,000), specialist training (USD 270,000) and other overhead costs (USD 770,000).

An exceptional capital investment budget is estimated at USD 6,300,000. This exceptional budget covers buildings and vehicles (USD 5,950,000) and specialist training USD 340,000.

Table 6 - Sub-Total for strengthening general management and regulatory services

SUB-TOTAL MANAGEMENT OF VETERINARY SERVICES						
Resource and cost lines	Current Number	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cos**
Material investments						
Buildings ()		24,400				
Maintenance cost per (sq m)		16,600	20	1	332,000	
Renovation cost per (sq m)		7,800	133	25	41,496	829,920
Building cost per (sq m)		-	400	25		
Transport (Purchasing cost)						
Motorbikes		162	1,333	6	35,991	35,991
Pick ups		154	60,000	10	924,000	4,620,000
4x4 vehicles		10	93,333	10	93,333	466,665
*Other specific vehicles for management of VS**					20,000	
*Other specific vehicles for management of VS**					2,000	
Staff office equipment set		75	2,000	5	30,000	
Other specific office equipment set		-				
Other specific equipment						
*Other equipment for management of VS**						
*Other equipment for management of VS**						
Sub-total Material investments					**1,478,820**	**5,952,576**
Non material investments						
Training						
Initial training						
Specialised training (person-months/5 years)		57.0	1,620			92,340
Continuing education (person-days/year)		5,790.0	48		275,218	
National expertise (days/5 years)		150.0	80			12,000
International expertise (weeks/5 years)		25.0	9,469			236,725
Special funds (/ 5 years) for …						
Sub-total non material expenditure					**275,218**	**341,065**
Salaries						
Veterinarians		249.0	5,559		1,384,191	
Other university degree		79.0	2,917		230,443	
Veterinary para-professionals		259.0	1,612		417,508	
Support staff		521.0	1,363		710,123	
Sub-total Salaries					**2,742,265**	
Consumable resources						
Administration			20%		548,453	
Travel allowances						
staff within the country (person-days) / year		-	20			
drivers within the country (person-days) / year		-	12			
staff abroad (person-weeks) / year		14	1,500		21,000	
Transport costs						
Km or miles Motorbikes / year		777,600	0.03		20,736	
Km or miles cars / year		2,310,000	0.21		492,800	
Km or miles 4x4 vehicle / year		180,000	0.37		67,200	
*Other transport fees**						
*Other transport fees**						
Specific costs						
Targeted specific communication		8			70,000	
Consultation (number of 1 day meetings)		57			20,100	
Sampling collection equipment		-				
*Other costs for VS management**					12,000	
*Other costs for VS management**						
Sub-total Consumable resources					**1,252,289**	
Delegated activities						
Sub-total Delegated activities						
Total in	***USD***				***5,748,592***	***6,293,641***
Total in	***Taka***				***431,144,400***	***472,023,075***

VI Resources analysis

The required budget for the VS for the next five years is estimated at approximately USD 334,000,000. This is made up of an annual cost estimated at USD 59,300,000 and exceptional cost of USD 41,700,000.

Note that this budget covers all VS activities including district/field activities, the central, field and district laboratories, all associated staff, physical resources and activities, and all operational costs. This budget provides for expanded activities required to achieve the national priorities and to ensure increased compliance with OIE standards. To achieve this, a significant investment is required in livestock development, veterinary public health, animal health, disease surveillance and control and the organisation and capability of the VS.

The total budget is shown in Table 6 (below).

VI.1 Human resources analysis

The Veterinary Services of Bangladesh are generally well staffed with competent, professional veterinarians, veterinary para-professionals and have appropriate support staff. The Veterinary Services are limited in their ability to comply with OIE standards for the delivery of animal and veterinary public health programmes by the lack of field veterinarians and the over reliance on veterinary para-professionals who have minimal training.

There is a lack of specialist training in epidemiology and risk analysis and more generally in strategic planning, programme design and implementation. A priority for the Veterinary Services in the next five years is to upgrade staff training and capabilities. Specialist training courses should be provided and all technical staff should be required to undertake continuing education.

The number of staff required by pillar is shown in the table below

Total estimation of the staffing required

	Trade		Veterinary Public Health		Animal health		Veterinary laboratories		Delegated activities		Management of Veterinary Services		Total	
	Current	Required	Current	Required	Current	Required	Current	Required	Current	Required	Current	Required	Current	Required
Veterinarians		110		94		1,500		177				249		2,130
Other university degree						230		12				79		321
Veterinary para-professionals		381		188		7,550		50				259		8,428
Support staff		491		138		2,855						521		4,005
TOTAL		982		420		12135		239				1108		14884

It is recommended that over the next five years that the number of veterinarians is increased to 2130 (current actual figures were not available). This significant increase in the number of veterinarians is required because of the need to develop effective animal and veterinary public health programmes. To deliver an effective animal health field programme for disease surveillance and control it is recommended that each upazila has three veterinarians to supervise the veterinary para-professionals at the upazila and union council levels – 1,500 FTE veterinarians will be required and these will supervise 7,550 veterinary para-professionals. The 230 Full Time Equivalent (FTE) graduates are current employees with general agricultural backgrounds that will continue to deliver extension services. It is estimated that 94 FTE veterinarians will required to implement a food safety programme in major slaughterhouses including premises registration and ante and post mortem inspections.

This does not represent a major increase in total staff numbers, as most veterinary para-professionals are already employed, but requires a progressive increase in qualifications and training, by assigning staff with appropriate training for their roles. This is a key requirement to improve compliance with OIE standards and any export certification requirements.

The number of veterinary para-professionals and support staff are considered to be appropriate, but they are frequently assigned tasks for which they are under-qualified. Veterinary para-professionals will be strengthened by identifying the necessary specialist

skills required, introducing qualification/training requirements and developing the skills of existing staff. Veterinary para-professionals should be further developed with registration under the Veterinary Council of Bangladesh – to achieve this the Veterinary Professionals Act will need to be revised.

To support the ongoing development of staff capabilities continuing education is an essential requirement A significant budget of USD 500,000 is provided for specialist training – to support staff develop skills overall animal health strategic planning, programme design and implementation and the development of specific skills in equivalence, zoning and compartmentalisation, abattoir registration and management, risk analysis, epidemiology and survey design and laboratory management and diagnostics. In addition this PVS Gap Analysis a budget is provided for five days of training per year to all technical staff – at an estimated annual cost of USD 2,660,000.

In the present situation, with a major gap in qualifications and training of veterinary para-professional staff, training should be part of day to day work of all DLS veterinarians in order to develop skills in less well-trained staff. Manuals of procedures, information sheets and programmes brochures and guidelines should be developed to provide additional support.

DLS salaries are estimated at USD 31,800,000 per year, which is about 46% of the total budget. When assessing this amount, it needs to be recognised that DLS salaries are currently very low (they have been fixed for seven years) and increases have now been scheduled over the next two years. This budget is based on existing salary scales. This PVS Gap Analysis has not specifically advocated any salary increase and none has been included in the projected budget. If salaries are brought to an appropriate level, this would significantly increase the total cost of the Veterinary Services.

VI.2 Physical resources analysis

The physical resources required are shown in the table below.

Total estimation of physical resources required

	Trade		Veterinary Public Health		Animal health		Veterinary laboratories		Management of Veterinary Services		Total	
	Current	Required	Current	Required	Current	Required	Current	Required	Current	Required	Current	Required
Buildings ()		**1,200**				**172,000**		**700**		**24,400**		**198,300**
Maintenance cost per (sq m)		1,200				86000				16,600		103,800
Renovation cost per (sq m)		-				43000				7,800		50,800
Building cost per (sq m)		-				43000		700				43,700
Transport (Purchasing cost)												
Motorbikes		24		39		7150				162		7,375
Pick ups		6				400				154		560
4x4 vehicles		-				30				10		40
Other		-		1								1
Other		-										
Staff office equipment set		30	-	28	-	1,000	-	100		75		1,233
Other specific office equipment set		-										
Other specific equipment in (ref. currency)		18,000				126,700						144,700

The total cost estimate for physical resources is USD 86,700,000 for the 5 year period – estimated at USD 9,300,000 annually with an exceptional budget of USD 40,300,000.

The existing physical resources of the DLS are in variable condition with new buildings and/or major refurbishments required, and already underway, for half the upazila, district and divisional offices. The central office is also in need of renovation. A new combined laboratory for CDIL and VPH is estimated to require 700 m^2 of laboratory space. All offices and facilities require an ongoing annual maintenance budget.

Transport is required to deliver an effective animal health field service, covering disease surveillance and control and emergency response, for veterinary public health, for the border inspection posts and for overall programme management and integration at central, divisional and district levels. It is recommended that 7,375 motorbikes are provided, 560 pick-ups, 40 4x4 WD vehicles and three cool vans for vaccine delivery.

Table n°6 - Total budget

TOTAL COST									
Resource and cost lines	Current Number	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**	**Total cost for 5 years**	**%annual cost**	**% total cost for 5 years**
Material investments									
Buildings ()	-								
Maintenance cost per (sq m)	-	103,800	20	1	2,076,000		10,380,000	3.5%	3.1%
Renovation cost per (sq m)	-	50,800	133	25	270,256	5,405,120	6,756,400	0.5%	2.0%
Building cost per (sq m)	-	43,700	400	25	710,400	14,208,000	17,760,000	1.2%	5.3%
Transport (Purchasing cost)									
Motorbikes	-	7,375	1,333	6	1,638,479	1,638,479	9,830,875	2.8%	2.9%
Pick ups	-	560	60,000	10	3,360,000	16,800,000	33,600,000	5.7%	10.1%
4x4 vehicles	-	40	93,333	10	373,332	1,866,660	3,733,320	0.6%	1.1%
Other vehicles		1			114,929	92,357	667,000	0.2%	0.2%
Other vehicles		-	2,000	5	103,069	247,857	763,200	0.2%	0.2%
Staff office equipment set	-	1,233	2,000	5	493,200		2,466,000	0.8%	0.7%
Other specific office equipment set	-	-							
Other specific equipment									
Other equipment					29,700	62,500	211,000	0.1%	0.1%
Other equipment					115,000		575,000	0.2%	0.2%
Sub-total Material investments					**9,284,364**	**40,320,973**	**86,742,795**	**15.6%**	**26.0%**
Non material investments									
Training									
Initial training									
Specialised training (person-months/5 years)	-	307.0	1,620			497,340	497,340		0.1%
Continuing education (person-days/year)	-	56,100.0	48		2,666,620		13,333,100	4.5%	4.0%
National expertise (days/5 years)		650.0	80			52,000	52,000		0.0%
International expertise (weeks/5 years)			9,469			700,706	700,706		0.2%
Special funds									
Sub-total non material expenditure					**2,666,620**	**1,250,046**	**14,583,146**	**4.5%**	**4.4%**
Salaries									
Veterinarians		2,130.0	5,559		11,840,670		59,203,350	20.0%	17.7%
Other university degree		321.0	2,917		936,357				
Veterinary para-professionals		8,428.0	1,612		13,585,936		67,929,680	22.9%	20.4%
Support staff		4,005.0	1,363		5,458,815		27,294,075	9.2%	8.2%
Sub-total Salaries					**31,821,778**		**154,427,105**	53.6%	46.3%
Consumable resources									
Administration			20%		6,364,356		31,821,778	10.7%	9.5%
Travel allowances									
staff within the country (person-days) / year	-	2,494	20		49,880		249,400	0.1%	0.1%
drivers within the country (person-days) / year	-	90	12		1,080		5,400	0.0%	0.0%
staff abroad (person-weeks) / year	-	14	1,500		21,000		105,000	0.0%	0.0%
Transport costs									
Km or miles Motorbikes / year		35,400,000	0.03		944,000		4,720,000	1.6%	1.4%
Km or miles cars / year		8,400,000	0.21		1,792,000		8,960,000	3.0%	2.7%
Km or miles 4x4 vehicle / year		720,000	0.37		268,800		1,344,000	0.5%	0.4%
Other transport fees					1,000,000		5,000,000	1.7%	1.5%
Other transport fees					2,300,000		11,500,000	3.9%	3.4%
Specific costs									
Targeted specific communication	-	657			487,100		2,435,500	0.8%	0.7%
Consultation (number of 1 day meetings)	-	1,127			349,500		1,747,500	0.6%	0.5%
Sampling collection equipment	108,600	9,768			592,650		2,963,250	1.0%	0.9%
Other costs	-	2,154			1,170,010		5,850,050	2.0%	1.8%
Other costs	-	20,000			225,000		1,125,000	0.4%	0.3%
Sub-total Consumable resources					**15,565,376**		**77,826,878**	26.2%	23.3%
Delegated activities									
Specific delegated activities									
Specific delegated activities									
Sub-total Delegated activities									
Total in	***USD***				***59,338,138***	***41,571,019***	***333,579,924***	***100%***	***100%***
Total in	***Taka***				***4,450,360,343***	***3,117,826,459***	***25,018,494,300***		

In addition, a range of other equipment is required. This includes office/equipment sets (telephones/mobile phones, computers and accessories), generators, fridges, cool boxes and temperature loggers.

The cost of the required physical resources is give in detail under each pillar.

VI.3 Financial resources analysis

VI.3.A Operational funding

The table below shows an 'analysis of the annual operational cost', a derivative of the strategies and activities required to achieve the desired objectives and the determined budget.

In year 5, the budget for operational funding is estimated to require a total of USD 50,000,000, made up of staff salaries (USD 43,500,000) and for 'consumables' (USD 15,560,000).

The proposed operational cost has relatively high staff costs of 69%, compared with consumable costs of 31%. This situation is a result of the large numbers of staff required to provide an effective field network and to start to implement sustainable disease surveillance and control and veterinary public health programmes. As the Veterinary Services programmes become better developed and more sustainable the budget should move towards providing a higher proportion of consumable costs for effective programme delivery – providing more vaccines, treatments etc.

The proposed budget increase is a significant change – it is in line with the findings of the 2011 OIE PVS Evaluation.

It is recommended a review the Veterinary Services funding policy is undertaken with increased consideration to combining government funding with private sector partnerships. This is particularly critical when dealing with export market requirements and to developing 'user pays' for private benefit activities.

Analysis of the annual operational cost (CC I-8)

	Trade	Veterinary Public Health	Animal Health	Veterinary laboratories	Management of Veterinary Services	Total operational cost	%
Salaries							
Veterinarians	611,490	522,546	8,338,500	983,943	1,384,191	11,840,670	23.66
Other university degree			670,910	35,004	230,443	936,357	1.87
Veterinary para-professionals	614,172	303,056	12,170,600	80,600	417,508	13,585,936	27.14
Support staff	669,233	188,094	3,891,365		710,123	5,458,815	10.91
Continuing education	116,694	67,022	2,150,883	56,802	275,218	2,666,620	5.33
Sub-total human resources	**2,011,589**	**1,080,718**	**27,222,258**	**1,156,349**	**3,017,483**	**34,488,398**	**68.90**
Administration	378,979	202,739	5,014,275	219,909	548,453	6,364,356	12.72
Travel allowances	50,180	780			21,000	71,960	0.14
Transport costs	22,272	4,992	5,696,800		580,736	6,304,800	12.60
Specific costs							
Communication	3,500	49,600	364,000		70,000	487,100	0.97
Consultation	5,700	19,800	303,900		20,100	349,500	0.70
Specific kits /reagents / vaccines	900	48,750	543,000			592,650	1.18
Other	29,360	56,400	541,250	531,000	12,000	1,170,010	2.34
Other		130,000	95,000			225,000	0.45
Sub-total consumable resources	**490,891**	**513,061**	**12,558,225**	**750,909**	**1,252,289**	**15,565,376**	**31.10**
Sub-total delegated activities							
TOTAL OPERATIONAL COST	**2,502,480**	**1,593,779**	**39,780,483**	**1,907,259**	**4,269,772**	**50,053,774**	**100.00**

VI.3.B Emergency funding

No specific animal health contingency fund exists. DLS is able to seek additional funding from MoFL and they, in turn, from the Ministry of Finance.

The main activity in the next five years will be to work with MoFL staff to document clearly the process of releasing contingency funds – with the development of templates – and contingency plans for disease response. A programme of simulation exercises should be undertaken.

VI.3.C Capital investment

The table below provides a summary of the proposed capital investment programme for the next five years. This item refers to required facilities and equipment (buildings, transport, office and other miscellaneous equipment) and exceptional non-material investments to support the operational infrastructure (specialised training, national and international expertise and special funds).

The total capital investment for the 5 year programme is estimated at estimated at USD 41,500,000, with USD 9,280,000 per year and an exceptional budget of USD 1,250,000 annually over five years.

As can be seen under section VI.2, significant capital is required to provide new or upgraded buildings.

Databases are required to support the management of staff and their training, physical resources and their maintenance and animal health information. An estimated budget of USD 270,000 is provided

In addition miscellaneous other capital items will be required including incinerators minilabs and yards for the border inspection posts, microscopes and generators for the animal health offices and other laboratory capital equipment.

Specialised training is considered to be a component of the capital investment budget. Specialist training and support is provided to develop staff skills in overall animal health strategic planning, programme design and implementation and the development of specific skills in equivalence, zoning and compartmentalisation, abattoir registration and management, risk analysis, epidemiology and survey design and laboratory management and diagnostics.

Analysis of capital investment required (CC I-10)

	Trade		Veterinary Public Health		Animal Health		Veterinary laboratories		Management of Veterinary Services		Total capital investment		% over 5 years
	Annual	Exceptional	Annual	Exceptional	Annual	Exceptional	Annual	Exceptional	Annual	Exceptional	Annual	Exceptional	
Buildings	24,000				2,636,760	18,335,200	22,400	448,000	373,496	829,920	3,056,656	19,613,120	39.66
Transport	59,572	185,332	18,665	8,665	4,378,248	15,258,701	58,000	70,000	1,075,324	5,122,656	5,589,808	20,645,353	55.23
Staff office equipment set	12,000		11,200		400,000		40,000		30,000		493,200		2.80
Other office equipment set													
Other specific equipment	18,000				126,700	62,500					144,700	62,500	0.89
Sub-total Material investment	**113,572**	**185,332**	**29,865**	**8,665**	7,541,708	33,656,401	**120,400**	**518,000**	1,478,820	**5,952,576**	**9,284,364**	40,320,973	**98.58**
Initial training													
Specialised training		4,860		152,280		207,360		40,500		92,340		497,340	0.57
National expertise				8,000		32,000				12,000		52,000	0.06
International expertise		94,690		113,628		113,628		142,035		236,725		700,706	0.80
Special funds													
Sub-total Non-Material expenditure		**99,550**		**273,908**		**352,988**		**182,535**		**341,065**		**1,250,046**	**1.42**
TOTAL CAPITAL INVESTMENT	**113,572**	**284,882**	**29,865**	**282,573**	7,541,708	34,009,389	**120,400**	**700,535**	1,478,820	**6,293,641**	**9,284,364**	41,571,019	**100.00**

VI.4 Profitability and sustainability

The national priorities require considerable strengthening of the Bangladesh Veterinary Services. Investment is required to achieve the target of improving food security and economic development including protecting and developing rural livelihoods. National priorities identify improving livestock production, improving veterinary public health and food safety and strengthening and developing sustainable animal disease surveillance and control as being key activities of the Veterinary Services.

The investment is significant, but given the country's lack of an effective food safety programme, concerns over residues and an absence of sustainable animal disease surveillance and control and realisation of potential export opportunities this investment will immediately provide good returns and long term economic development

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

In 2014, the national Bangladesh GDP was USD 173 billion (World Bank) with the livestock economy estimated to be USD 3.7 billion of this total amount.

The national budget for 2014 was USD 33.4 billion and the MoFL budget was USD 1.2 billion. (Note that this budget does not include crops which are under the Ministry of Agriculture.)

The 2014 budget for the DLS was USD 69 million. Note that this is not the budget for the Veterinary Services as DLS also provides livestock production services (see page 15). Owing to the current complex organisation structure, no budget is available for the Veterinary Services – further comparisons on the Veterinary Services as a proportion of government spending cannot therefore be made.

VI.4.B Analysis of distribution per pillar

The PVS Gap Analysis Tool investment per pillar is shown in the tables below.

The total annual budget figure of USD 59,000,000 is distributed as trade (4%), veterinary public health (3%), animal health (80%), laboratories (3%) and general management (10%).

The total five year budget figure of USD 338,000,000 is similarly distributed across the pillars of trade (4%), veterinary public health (2%), animal health (80%), laboratories (3%) and general management (10%).

The high proportion being budgeted for animal health is because of the need and the potential to deliver an effective field service – most field costs have been assigned to the animal health pillar.

Veterinary public health remains as a low proportion of the overall budget as it is a new programme and will take time to become established at the lower local levels of animal slaughter and processing. This can be expected to increase markedly beyond the five year time frame of this plan.

Management costs are relatively high at 10%. This is because of the large number of staff employed and the need to manage and monitor programmes effectively.

ANNUAL COST PER PILLAR						
Resource and cost lines	Trade	Veterinary Public Health	Animal health	Veterinary laboratories	Management of Veterinary Services	**Total**
Material investments						
Sub-total Material investments	113,572	29,865	7,541,708	120,400	1,478,820	9,284,364
%	*1.2%*	*0.3%*	*81.2%*	*1.3%*	*15.9%*	*100%*
Non material investments						
Sub-total non material expenditure	116,694	67,022	2,150,883	56,802	275,218	2,666,620
%	*4.4%*	*2.5%*	*80.7%*	*2.1%*	*10.3%*	*100%*
Salaries						
Sub-total Salaries	1,894,895	1,013,696	25,071,375	1,099,547	2,742,265	31,821,778
%	*6.0%*	*3.2%*	*78.8%*	*3.5%*	*8.6%*	*100%*
Consumable resources						
Sub-total Consumable resources	490,891	513,061	12,558,225	750909	1,252,289	15,565,376
%	*3.2%*	*3.3%*	*80.7%*	*4.8%*	*8.0%*	*100%*
Delegated activities						
Sub-total Delegated activities	-	-	-	-	-	-
%						
Total in USD	**2,616,052**	**1,623,644**	**47,322,191**	**2,027,659**	**5,748,592**	**59,338,138**
%	*4.4%*	*2.7%*	*79.8%*	*3.4%*	*9.7%*	*100%*
Total in Taka	**196,203,925**	**121,773,278**	**3,549,164,336**	**152,074,405**	**431,144,400**	**4,450,360,343**

TOTAL COST (5 annual cost + exceptional cost) PER PILLAR						
	Trade	Veterinary Public Health	Animal health	Veterinary laboratories	Management of Veterinary Services	**Total**
Material investments						
Sub-total Material investments	753,192	157,987	71,364,940	1,120,000	13,346,676	86,742,795
%	*0.9%*	*0.2%*	*82.3%*	*1.3%*	*15.4%*	*100%*
Non material investments						
Sub-total non material expenditure	683,022	609,018	11,107,405	466,547	1,717,155	14,583,146
%	*4.7%*	*4.2%*	*76.2%*	*3.2%*	*11.8%*	*100%*
Salaries						
Sub-total salaries	9,474,475	5,068,480	125,356,875	5,497,735	13,711,325	159,108,890
%	*6.0%*	*3.2%*	*78.8%*	*3.5%*	*8.6%*	*100%*
Consumable resources						
Sub-total Consumable resources	2,454,455	2,565,306	62,791,125	3,754,547	6,261,445	77,826,878
%	*3.2%*	*3.3%*	*80.7%*	*4.8%*	*8.0%*	*100%*
Delegated activities						
Sub-total Delegated activities	-	-	-	-	-	-
%						
Total in USD	**13,365,144**	**8,400,791**	**270,620,345**	**10,838,829**	**35,036,601**	**338,261,709**
%	*4%*	*2%*	*80%*	*3%*	*10%*	*100%*
Total in Taka	**1,002,385,775**	**630,059,325**	**20,296,525,850**	**812,912,150**	**2,627,745,075**	**25,369,628,175**

CONCLUSION

The strengthening of the Veterinary Services in Bangladesh over a five-year time frame would deliver improved animal and veterinary public health, increased animal production with improved food security, the development of export markets and a Veterinary Services with improved resources that is more compliant with OIE and other international standards. Overall, the PVS Gap Analysis mission has developed a programme that can be achieved with good advocacy, hard work and commitment from the DLS and strong support from MoFL.

A major challenge faced in delivering effective Veterinary Services in Bangladesh is the current matrix organisation under the DLS which combines animal health and production. For an effective Veterinary Authority, it is strongly recommended that a Directorate General of Animal Health or Veterinary Services is established.

Critical to achieving the high standards set out in this PVS Gap Analysis is the need to undertake a series of programme reviews to identify a clear vision and to determine policy priorities. Following these reviews, the necessary legislation needs to be put in place and operational planning developed with adequate resources and monitoring and evaluation.

Strict supervision and evaluation of the activities as they are implemented will be essential and will require commitment from the senior staff of the DLS, supported by the Minister, State Minister and Secretary of MoFL.

The PVS Gap Analysis presents a significant challenge to the Government of Bangladesh and its livestock ministry, MoFL, and their ability to support this development programme for the Veterinary Services. The investment in livestock development, veterinary public health and animal health will deliver major benefits to the country – increased economic growth and protection of rural livelihoods, improved food security and safety, and better public health with reduced food borne infections and zoonoses.

The determination of national priorities, the agreement to upgrade many critical competencies, the strategies and the activities determined for each competency, and the costing of the implementation of these activities are an important step in gaining a shared understanding of what the Veterinary Services must do. This clarity is essential in advocating for the commitment of senior MoFL staff and the central government to provide increased resources to the Veterinary Services.

The Veterinary Services of Bangladesh are professionally staffed, have a simple logical organisational form with a central headquarters and then through divisions, districts and upazilas to the field, but the combination of animal health and animal production under DLS results in a lack of coherent leadership and management.

The PVS Gap Analysis plan developed identifies the key objectives and therefore the priorities necessary for the Veterinary Services to advance its levels of critical competence to achieve its five-year goals and to improve compliance with OIE standards. The increase of budget is reasonable with the major programmes that are to be initiated and/or strengthened.

The OIE PVS Gap team has enjoyed working closely with the Bangladesh VS in developing this plan for a brighter future for animal and veterinary public health and livestock farming. It wishes the staff and stakeholders all the best in their work in delivering the benefit of a stronger VS for Bangladesh.

APPENDICES

Appendix 1: Critical Competency Cards and corresponding Cost Estimation Cards

A. Critical Competencies for International Trade

Trade 1 – II-4. Quarantine and border security

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. The VS cannot apply any type of quarantine or border security procedures for animals or animal products with their neighbouring countries or trading partners.

2. The VS can establish and apply quarantine and border security procedures; however, these are generally based neither on international standards nor on a risk analysis.

3. The VS can establish and apply quarantine and border security procedures based on international standards, but the procedures do not systematically address illegal activities[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. Strategy to reach the Desired Level of Advancement (if relevant)

Strengthen border control through application of appropriate border control actions – considering bilateral/equivalence agreements with neighbouring countries and trading partners

4. Activities to implement (chronological)

Specific activities		• Establish a 'Trade Sub-directorate' dedicated to manage international trade affairs (border inspection, SPS requirements and export certification within central VS) • Conduct a feasibility study on effective disease control at the border: incorporating a risk analysis of major diseases, establishment of sanitary agreements/certification with neighbours, SPS obligations, border inspection and the use of livestock quarantine (detainment) at borders, risk of illegal trade etc. • Develop pilot sanitary agreement/trade certification arrangement with neighbours, initially for PPR – given that cattle exports from India are not acknowledged • Align land border control activities with national disease control programmes, given all 'controlled' diseases are endemic in Bangladesh and India. • Pending findings of the feasibility study, provide necessary staffing and infrastructure (office space/mini-lab/incinerator, animal handling facilities at all BIPs, including isolation facilities at the four main land border crossings. • Designate restricted (12/7) opening hours at all but the major land, airport and seaport entry points • Develop protocols and implement documentation inspection and clinical examination of animals and animal products entering at designated border crossings and apply sanitary measures as necessary. • Review capacity to manage risks of illegal import pathways in liaison with customs/police.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with Customs, Border Police
	IV.1, 2, 3. Legislation	Import/Export Regulations
	I.3. Continuing Education	CE programme for inspectorate officials
	III.1 Communication	Public awareness of border control requirements to ensure human and animal health
	I.11. Management of resources and operations	Restructuring of VS to include an international Trade Sub-directorate
	III.3. Official representation	Participation at OIE General Session and regional commission meetings Harmonisation meetings with Indian veterinary authorities

5. Objectively verifiable indicators

- Inventories of infrastructure and equipment at border inspection posts (BIPs)
- Documented sanitary requirements, bilateral agreements or equivalence agreements for import of animals and products from major trading partners; Records of communications with Indian authorities
- Border inspection & control records

[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.

TRADE - 1 CC: II-4. Quarantine and border security					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()	1,200				
Maintenance cost per (sq m)	1,200	20	1	24,000	
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes	24	1,333	6	5,332	5,332
Pick ups	6	60,000	10	36,000	180,000
4x4 vehicles		93,333	10		
incinerators	24	2,000	5	9,600	
Minilabs, misc equipment, photocopier,etc	24	1,800	5	8,640	
Staff office equipment set	30	2,000	5	12,000	
Other specific office equipment set					
Other specific equipment					
Cattle handling yards	18	2,000	5	7,200	
Isolation pens	4	1,000	5	800	
Sub-total Material investments				**103,572**	**185,332**
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)	2,455.0	48		116,694	
National expertise (days/5 years)		80			
International expertise (weeks/5 years)	6.0	9,469			56,814
Special funds (/ 5 years) for study tour					
Sub-total non material expenditure				**116,694**	**56,814**
Salaries					
Veterinarians	110.0	5,559		611,490	
Other university degree		2,917			
Veterinary para-professionals	381.0	1,612		614,172	
Support staff	491.0	1,363		669,233	
Sub-total Salaries				**1,894,895**	
Consumable resources					
Administration		20%		378,979	
Travel allowances					
staff within the country (person-days) / year	2,455	20		49,100	
drivers within the country (person-days) / year	90	12		1,080	
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year	115,200	0.03		3,072	
Km or miles cars / year	90,000	0.21		19,200	
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment	18	50.00		900	
Sample containers etc	1,872	5.00		9,360	
Sub-total Consumable resources				**461,691**	
Delegated activities					
Sub-total Delegated activities					
Total in	***USD***			***2,576,852***	***242,146***
Total in	*Taka*			***193,263,925***	***18,160,950***

Trade 2 – II-12. Identification and traceability

A. Animal identification and movement control

1. Definition of this PVS Critical Competency

The authority and capability of the VS, normally in coordination with producers and other interested parties, to identify animals under their mandate and trace their history, location and distribution for the purpose of animals disease control, food safety, or trade or any other legal requirements under the VS/OIE mandate.

2. Desired Level of Advancement (DLA)

1. The VS do not have the authority or the capability to identify animals or control their movements.

2. The VS can identify some animals and control some movements, using traditional methods and/or actions designed and implemented to deal with a specific problem (e.g. to prevent robbery).

3. The VS implement procedures for animal identification and movement control for specific animal subpopulations as required for disease control, in accordance with relevant international standards.

4. The VS implement all relevant animal identification and movement control procedures, in accordance with relevant international standards.

5. The VS carry out periodic audits of the effectiveness of their identification and movement control systems.

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

Progressively introduce animal identification system for selected subpopulations (for disease control and export)

4. Activities to implement (chronological)

Specific activities		• Develop necessary legislation to regulate animal identification, movement control and traceability in accordance with OIE standards • Consult with dairy/beef industry representatives and develop a standardised approach for animal identification according to purpose (disease control, commercial dairy producers, domestic and export producers (meat/poultry) • Progressively introduce pilot animal identification for disease control programmes, commercial dairy animals and beef animals destined for export of meat • Establish animal identification information management systems for animal/animal product identification, movement and traceability • Monitor sanitary requirements of potential trading partners with respect to identification/traceability requirements • Introduce a formal system and protocols for movement control of animals for animal disease control and domestic market/export traceability as soon as possible
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with Directorate of Livestock Production, commercial dairy/beef industry stakeholders, commercial poultry producers/processors
	IV.1, 2, 3. Legislation	Primary and secondary legislation for animal identification, movement control and traceability
	I.3. Continuing Education	CE programme for inspectorate personnel responsible for introduction of official animal identification system/development of information management systems
	III.1 Communication	Create public awareness for enforcement of movement control as and when necessary
	I.11. Management of resources and operations	New staffing requirements to be identified and progressively increased as identification systems develop
	III.3. Official representation	

5. Objectively verifiable indicators

- Animal Identification, Movement Control and Traceability Act and Regulations.
- Organisational structure accommodates development of official animal identification/movement control systems
- Designated sub-populations (e.g. vaccinated animals) are identified in the field.
- Dairy animal identification records, disease control (vaccination) records. Beef export animal identification, movement records
- Movement permits and records

TRADE - 2 CC: II-12. Identification and traceability A. Animal identification and movement control					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Animal ID database	1	50,000	5	10,000	
Sub-total Material investments				**10,000**	
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)	4.0	9,469			37,876
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**37,876**
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication	7	500.00		3,500	
Consultation (number of 1 day meetings)	5	300.00		1,500	
Sampling collection equipment					
Tags and materials	20,000	1.00		20,000	
Sub-total Consumable resources				**25,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	***USD***			***35,000***	***37,876***
Total in	*Taka*			***2,625,000***	***2,840,700***

Trade 3 – II-12. Identification and traceability

B. Identification and traceability of products of animal origin

1. Definition of this PVS Critical Competency

The authority and capability of the VS, normally in coordination with producers and other interested parties, to identify and trace products of animal origin for the purpose of food safety, animal health or trade.

2. Desired Level of Advancement (DLA)

1. The VS do not have the authority or the capability to identify or trace products of animal origin.

2. The VS can identify and trace some products of animal origin to deal with a specific problem (e.g. products originating from farms affected by a disease outbreak).

3. The VS have implemented procedures to identify and trace some products of animal origin for food safety, animal health and trade purposes, in accordance with relevant international standards.

4. The VS have implemented national programmes enabling them the identification and tracing of all products of animal origin, in accordance with relevant international standards.

5. The VS periodically audit the effectiveness of their identification and traceability procedures.

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

Coordinate with MoH and Ministry of Commerce to progressively introduce identification systems to allow traceability of animal products on the domestic market and for export.

4. Activities to implement (chronological)

Specific activities		• Consult with MoF, the Ministry of Commerce and the export beef industry on their needs • Progressively introduce quality stamping of animal products and batch numbering for purpose of traceability of animal products for domestic/export markets (Note: to be linked to the DLS taking full control of ante and post mortem inspection and certification of animals/meat at all slaughterhouses and so allow through chain traceability) • Work with MoH to ensure inspection and sanction arrangements for domestic retail outlets to ensure only inspected (stamped) meat is sold commercially as per legislation.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with MoF, Ministry of Commerce, animal product processing industry
	IV.1, 2, 3. Legislation	Animal slaughter and Quality of Meat Act and Regulations, Food Safety Act
	I.3. Continuing Education	CE for abattoir management and VPH inspectorate officers, certification procedures
	III.1 Communication	Public awareness on need for traceability of animal products – fitness for human consumption; use of quality stamp on meat for human consumption; branding and batch numbering on carcasses/packaging of meat
	I.11. Management of resources and operations	Establishment and equipping VPH inspectorate
	III.3. Official representation	

5. Objectively verifiable indicators

- Ante and post-mortem inspection records
- Identification protocols and records
- Records on tracebacks

TRADE - 3 CC: II-12. Identification and traceability B. Identification and traceability of products of animal origin					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)	4	300.00		1,200	
Sampling collection equipment					
Sub-total Consumable resources				**1,200**	
Delegated activities					
Sub-total Delegated activities					
Total in	***USD***			***1,200***	
Total in	*Taka*			***90,000***	

Trade 4 – IV-4. International certification[7]

1. Definition of this PVS Critical Competency

The authority and capability of the VS to certify animals, animal products, services and processes under their mandate, in accordance with the national legislation and regulations, and international standards.

2. Desired Level of Advancement (DLA)

1. The VS have neither the authority nor the capability to certify animals, animal products, services or processes.

2. The VS have the authority to certify certain animals, animal products, services and processes, but are not always in compliance with the national legislation and regulations and international standards.

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

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

5. The VS carry out audits of their certification programmes, in order to maintain national and international confidence in their system.

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

The DLS has full regulatory control over the licensing and inspection of slaughterhouses and milk collection/processing establishments and certification of animal products and has the capability to undertake export certification of animals and animal products in accordance with OIE, SPS and Codex standards

4. Activities to implement (chronological)

Specific activities		• Establish a 'Trade Sub-directorate' within DLS dedicated to manage systems for regulation of import and export of animals and animal products, including SPS enquiries • Review and revise food safety and control of import/export legislation to comply with OIE and other international standards • DLS, Ministry of Commerce and Bengal Meat to collaborate in coordination of negotiations with trading partners to reach bilateral/equivalence agreements for export of beef • Streamline process of issuing certificates for exporters of hatching eggs and other products • DLS to collaborate more closely with the private sector to develop capacity of inspectorate personnel to set and enforce standards of practice (food safety management systems/biosecurity management of commercial poultry farms). • Provide training to slaughterhouse/meat inspectors to comply with international standards • Provide specialised training for export certification personnel on international standards for issuing international veterinary certificates • Trade Directorate DLS staff to assist commercial producers/processors to progressively introduce biosecurity management plans consistent with requirements for compartmentalisation.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with MoH, Ministry of Food and Ministry of Local Government to gain full control over licensing of premises and food safety control in accordance with provisions of Animal Slaughter and Quality of Meat Control Act and Regulations and Diseases of Animals Act (milk collection/processing establishments)
	IV.1, 2, 3. Legislation	Review/revise Food Safety Act, Animal Slaughter and Quality of Meat Control Act and Regulations and Import/Export Regulations for animals and animal products compliant with SPS, OIE and Codex standards
	I.3. Continuing Education	CE for food safety inspectorate (VPH) and DLS export certification officers
	III.1 Communication	SPS enquiry and notification point representation within DLS
	I.11. Management of resources and operations	New Trade Sub-directorate to be established within DLS
	III.3. Official representation	Participation in OIE World Assembly, regional commission and Codex Commission meetings

5. Objectively verifiable indicators

- Promulgation of revised legislation
- Bilateral trade agreements with new markets; International veterinary certificate records
- HACCP plans and records, ISO 22000-2005 accreditation of export slaughterhouses
- Entry point training and CE programme plans, curricula and training records
- Export volume records for meat and hatching eggs

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

TRADE - 4 CC: IV-4. International certification					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)	6	300.00		1,800	
Sampling collection equipment					
Sub-total Consumable resources				**1,800**	
Delegated activities					
Sub-total Delegated activities					
Total in	***USD***			***1,800***	
Total in	*Taka*			***135,000***	

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

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. The VS have neither the authority nor the capability to negotiate or approve equivalence or other types of sanitary agreements with other countries.

2. The VS have the authority to negotiate and approve equivalence and other types of sanitary agreements with trading partners, but no such agreements have been implemented.

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

4. The VS actively pursue the development, implementation and maintenance of equivalence and other types of sanitary agreements with trading partners on all matters relevant to animals, animal products and processes under their mandate.

5. The VS actively work with interested parties and take account of developments in international standards, in pursuing equivalence and other types of sanitary agreements with trading partners.

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

Bilateral/equivalence agreements negotiated for the export of beef and poultry (hatching eggs)

4. Activities to implement (chronological)

Specific activities		• Provide training to senior management DLS on conducting risk analyses for import as well as for the development of food safety management systems (HACCP) • Provide training on equivalence negotiation in relation to export of meat and hatching eggs
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with private sector institutions already utilising GMPs/HACCP plans, and trading partners
	IV.1, 2, 3. Legislation	Review/revise Animal Slaughter and Quality of Meat Control Act and Regulations and Import/Export Regulations for animals and animal products compliant with SPS, OIE and Codex standards
	I.3. Continuing Education	Food safety inspectorate, export certification, trade department staff
	III.1 Communication	SPS enquiry and notification point representative in DLS
	I.11. Management of resources and operations	New Trade Sub-directorate within DLS
	III.3. Official representation	OIE, General Session & regional commission, Codex Commission

5. Objectively verifiable indicators

- Equivalence and/or bilateral trade agreements developed, agreed and being implemented
- Export trade volume records (Beef & hatching eggs)

TRADE - 5 CC: IV-5. Equivalence and other types of sanitary agreements					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)	2.0	1,620			3,240
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**3,240**
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)	2	300.00		600	
Sampling collection equipment					
Sub-total Consumable resources				**600**	
Delegated activities					
Sub-total Delegated activities					
Total in	***USD***			***600***	***3,240***
Total in	*Taka*			***45,000***	***243,000***

Trade 6 – IV-6. Transparency

1. Definition of this PVS Critical Competency

The authority and capability of the VS to notify the OIE of its sanitary status and other relevant matters (and to notify the WTO SPS Committee where applicable), in accordance with established procedures.

2. Desired Level of Advancement (DLA)

1. The VS do not notify.

2. The VS occasionally notify.

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

4. The VS regularly inform interested parties of changes in their regulations and decisions on the control of relevant diseases and of the country's sanitary status, and of changes in the regulations and sanitary status of other countries.

5. The VS, in cooperation with their interested parties, carry out audits of their transparency procedures.

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

Routine notification to OIE/WTO as required (6 monthly basis and unusual occurrences on an ad hoc basis)
Notification to trading partners of new/revised import requirements for animals and animal products in accordance with SPS principles

4. Activities to implement (chronological)

Specific activities		• Establish Trade Sub-directorate within DLS including SPS Enquiry and Notification Psoint • Provide training of senior managers of Trade Department in risk analysis for development of sanitary requirements for control of imports of animals and animal products. (Note: SPS agreement requires the SPS Enquiry and Notification Point to publish the sanitary requirements for import of animals/animal products as well as any proposed changes) • Improve animal health information by extending the animal disease surveillance and reporting system – see CCII.5A
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	Communicate disease reports internationally, nationally and locally as relevant. Communicate sanitary measures and any proposed changes in sanitary requirements to WTO and trading partners via SPS Enquiry and Notification point
	I.11.Management of resources and operations	Management of information is critical
	III.3. Official representation	Develop international networks to understand reporting obligations better

5. Objectively verifiable indicators

- WAHID – 6 monthly reports
- Ad hoc reports of unusual notifiable disease events
- WTO/trading partner notifications of new or amended sanitary requirements for import of animals and animal products

TRADE - 6 CC: IV-6. Transparency					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Taka***				

Trade 7 – IV-7. Zoning

1. Definition of this PVS Critical Competency

The authority and capability of the VS to establish and maintain disease free zones, as necessary and in accordance with the criteria established by the OIE (and by the WTO SPS Agreement where applicable).

2. Desired Level of Advancement (DLA)

1. The VS cannot establish disease free zones.

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

3. The VS have implemented biosecurity measures that enable it to establish and maintain disease free zones for selected animals and animal products, as necessary.

4. The VS collaborate with producers and other interested parties to define responsibilities and execute actions that enable it to establish and maintain disease free zones for selected animals and animal products, as necessary.

5. The VS can demonstrate the scientific basis for any disease free zones and can gain recognition by trading partners that they meet the criteria established by the OIE (and by the WTO SPS Agreement where applicable).

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

Zoning is not a priority in Bangladesh over the next 5 years

4. Activities to implement (chronological)

Specific activities		• There are some delta islands (e.g. Bhola - 50km^2) that Bangladesh could consider establishing as a disease free zone (e.g. FMD or PPR). • Export beef industry are keen to develop an FMD free zone or compartment for trade. Note that 'compartmentalisation' is considered more appropriate as this will be industry led.
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

- Scoping study, including cost-benefit analysis, for disease zoning of delta islands.

TRADE - 7 CC: IV-7. Zoning					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)	0.5	1,620			810
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**810**
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)	1	300.00		300	
Sampling collection equipment					
Sub-total Consumable resources				**300**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***300***	***810***
Total in	***Taka***			***22,500***	***60,750***

Trade 8 – IV-8. Compartmentalisation

1. Definition of this PVS Critical Competency

The authority and capability of the VS to establish and maintain disease free compartments as necessary and in accordance with the criteria established by the OIE (and by the WTO SPS Agreement where applicable).

2. Desired Level of Advancement (DLA)

1. The VS cannot establish disease free compartments.

2. As necessary, the VS can identify animal sub-populations with a distinct health status suitable for compartmentalisation.

3. The VS ensure that biosecurity measures to be implemented enable it to establish and maintain disease free compartments for selected animals and animal products, as necessary.

4. The VS collaborate with producers and other interested parties to define responsibilities and execute actions that enable it to establish and maintain disease free compartments for selected animals and animal products, as necessary.

5. The VS can demonstrate the scientific basis for any disease free compartments and can gain recognition by other countries that they meet the criteria established by the OIE (and by the WTO SPS Agreement where applicable).

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

Support establishment of disease-free compartments with private companies for the export of meat and hatching eggs

4. Activities to implement (chronological)

Specific activities		• Support private company Bengal Meat negotiations with trading partners to recognise their beef fattening and slaughter enterprise as a compartment, in relation to freedom from FMD, on the basis of application of a formal risk-based biosecurity management plan • Provide export certification of meat from compartments on the basis of sanitary requirements of importing countries • Assist commercial poultry producers develop risk-based biosecurity management plans for the purpose of compartmentalisation and provide export certification of hatching eggs on the basis of importing country requirements
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with Bengal Meat and importing countries in the Middle East and elsewhere Consult with Ministry of Commerce on these arrangements as required
	IV.1, 2, 3. Legislation	Review and revise legislation, if necessary
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	Management will need to develop procedures and protocols
	III.3. Official representation	May be required to develop bilateral agreements

5. Objectively verifiable indicators

- Bilateral/equivalence agreements incorporating concept of compartmentalisation for export of beef and hatching eggs

TRADE - 8 CC: IV-8. Compartmentalisation					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)	0.5	1,620			810
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**810**
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)	1	300.00		300	
Sampling collection equipment					
Sub-total Consumable resources				**300**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***300***	***810***
Total in	***Taka***			***22,500***	***60,750***

B. Critical Competencies for Veterinary Public Health

VPH 1 – II-8. Food safety

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

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement

1. Regulation, authorisation and inspection of relevant establishments are generally not undertaken in conformity with international standards.

2. Regulation, authorisation and inspection of relevant establishments are undertaken in conformity with international standards in some of the major or selected premises (e.g. only at export premises).

3. Regulation, authorisation and inspection of relevant establishments are undertaken in conformity with international standards in all premises supplying throughout the national market.

4. Regulation, authorisation and inspection of relevant establishments (and coordination, as required) are undertaken in conformity with international standards for premises supplying the national and local markets.

5. Regulation, authorisation and inspection of relevant establishments (and coordination, as required) are undertaken in conformity with international standards at all premises (including on-farm establishments).

3. Strategy to reach the Desired Level of Advancement

Develop program to regulate, authorise and inspect national level establishments (slaughterhouses and milk processors)

4. Activities to implement

Specific activities		• Review legislation (Animal Slaughter and Quality of Meat Control Act, 2011) against international standards to determine if there are appropriate controls over relevant establishments (e.g. licensing, hygiene standards, premises inspections, etc.); if necessary draft and enact revised legal powers • Develop regulations to implement the Act • Consult with the municipalities and the Food Safety Authority • List key abattoirs and milk processors that supply the domestic markets • Develop and document inspection protocols and procedures – by Veterinary Public Health Unit • Define an enforcement process with penalties to be implemented – including withdrawal of a licence, suspension and temporary approvals • Identify and train necessary staff • For major national slaughterhouses (and export) implement regulation, authorisation and inspection for relevant establishments • Consider developing a pilot program for the regulation/inspection of smaller slaughter establishments such as slaughter slabs • Prepare annual reports of activities
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with meat industry stakeholders
	IV.1, 2, 3. Legislation	Review and revise if necessary Develop regulations under Act
	I.3. Continuing Education	Staff training on regulation and inspection of premises
	III.1 Communication	Communications to raise awareness and commitment of owners and operators of the establishments
	I.11 .Management of resources and operations	Staff will be required to undertake this work – to be managed by the VPH Department
	III.3. Official representation	

5. Objectively verifiable indicators

- Documented legislation review
- Food safety regulations
- Documented authorisation and inspection programme for slaughterhouse establishments servicing the national market
- Evidence of staff training
- Reported results of inspections
- Annual reports of activities

* not assessed in PVS Evaluation

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

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)	10	600.00		6,000	
Sampling collection equipment					
Sub-total Consumable resources				**6,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***6,000***	
Total in	***Taka***			***450,000***	

VPH 2 – II-8. Food safety

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

1. Definition of this PVS Critical Competency

The authority and capability of the VS to implement and manage the inspection of animals destined for slaughter at abattoirs and associated premises, including for assuring meat hygiene and for the collection of information relevant to livestock diseases and zoonoses.

2. Desired Level of Advancement

1. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are generally not undertaken in conformity with international standards.

2. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards only at export premises.

3. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards for export premises and for major abattoirs producing meat for distribution throughout the national market.

4. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards for export premises and for all abattoirs producing meat for distribution in the national and local markets.

5. Ante- and post mortem inspection and collection of disease information (and coordination, as required) are undertaken in conformity with international standards at all premises (including family and on farm slaughtering) and are subject to periodic audit of effectiveness.

3. Strategy to reach the Desired Level of Advancement

Implement a national ante and post mortem inspection programme for national market suppliers

4. Activities to implement

Specific activities		• List key national abattoirs that supply the domestic markets • Engage more actively with the one current export abattoir and others as they come on line to ensure understanding of the VS role in facilitating international trade certification e.g. conduct regular inspection/audits • Review and document slaughter sector and facilities in Bangladesh (using livestock census, numbers slaughtered, etc.) • Coordinate with local governments/municipality corporations and the Food Safety Authority to formally provide ante and post mortem inspection services under the management of DLS • A Veterinary Public Health Department, under DLS will lead development of inspection procedures and protocols for national market abattoirs, based on export abattoir practices • Develop procedures and protocols in consultation with industry • Train inspection staff in procedures and protocols and sample collection and handling requirements • Ensure regular reporting of inspection results, including disease information, condemnations, etc. to DLS, municipal corporations and nationally
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with abattoirs and industry
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Staff training on ante and post mortem inspection
	III.1 Communication	Communications to raise awareness and committed of establishments
	I.11 .Management of resources and operations	Staff and equipment will be required to undertake this work – under management of Department of VPH Inspection data should be captured on database and feed into national animal health information system
	III.3. Official representation	

5. Objectively verifiable indicators

- List of abattoirs that supply product nationally
- Records of staff training
- Inspection reports of export abattoirs to verify certification
- Documented slaughter sector review
- Ante and post mortem inspection reports

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

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes	39	1,333	6	8,665	8,665
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set	78	2,000	5	31,200	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**39,865**	**8,665**
Non material investments					
Training					
Specialised training (person-months/5 years)	94.0	1,620			152,280
Continuing education (person-days/year)	1,410.0	48		67,022	
National expertise (days/5 years)	60.0	80			4,800
International expertise (weeks/5 years)	8.0	9,469			75,752
Special funds (/ 5 years) for …					
Sub-total non material expenditure				**67,022**	**232,832**
Salaries					
Veterinarians	94.0	5,559		522,546	
Other university degree		2,917			
Veterinary para-professionals	188.0	1,612		303,056	
Support staff	138.0	1,363		188,094	
Sub-total Salaries				**1,013,696**	
Consumable resources					
Administration		20%		202,739	
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year	187,200	0.03		4,992	
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication	7	1,000.00		7,000	
Consultation (number of 1 day meetings)	6	600.00		3,600	
Sampling collection equipment	9,750	5.00		48,750	
Clinical and autopsy equipment	282	200.00		56,400	
Sub-total Consumable resources				**323,481**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***1,444,064***	***241,497***
Total in	***Taka***			***108,304,778***	***18,112,238***

VPH 3 – II-8. Food safety

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

1. Definition of this PVS Critical Competency

The authority and capability of the VS to implement manage and coordinate food safety measures on collection, processing and distribution of products of animals, including programmes for the prevention of specific food-borne zoonoses and general food safety programmes.

2. Desired Level of Advancement

1. Implementation, management and coordination (as appropriate) are generally not undertaken in conformity with international standards.

2. Implementation, management and coordination (as appropriate) are generally undertaken in conformity with international standards only for export purposes.

3. Implementation, management and coordination (as appropriate) are generally undertaken in conformity with international standards only for export purposes and for products that are distributed throughout the national market.

4. Implementation, management and coordination (as appropriate) are generally undertaken in conformity with international standards only for export purposes and for products that are distributed throughout the national and local markets.

5. Implementation, management and coordination (as appropriate) are undertaken in full conformity with international standards for products at all levels of distribution (including on farm establishments)

3. Strategy to reach the Desired Level of Advancement

Coordinate with MoH and Ministry of Commerce to deliver improved food safety at processors and distributors

4. Activities to implement

Specific activities		Note the Competent Authority that regulates the safety of food is the Food Safety Authority of the Ministry of Food, However, the Animal Slaughter and Quality of Meat Act (2011) provides the DLS with authority to license and inspect meat processing establishments and the Diseases of Animals Act (2005) provides the DLS with the authority to license and inspect milk processing premises. Currently, the municipal authorities also sometimes employ veterinarians as meat inspectors. Clarification is necessary in order to determine the respective roles and responsibilities of each of the Ministries with respect to the safety of animal products destined for human consumption. In summary actions that should be undertaken include: • Undertake consultation with the Ministry of Food, Ministry of Health and Ministry of Local Government to define precisely the roles and responsibilities of each Ministry with respect to the regulation of the safety of animal products destined for human consumption, throughout the livestock value chain from production to processed products sold at retail establishments • On the basis of outcome of consultation with Ministry of Food, Ministry of Health and Ministry of Local Government, Review and revise existing Acts and develop Regulations for their implementation to ensure necessary powers are in place and are being implemented effectively • A number of inspectors (~950) have already been trained; this training need to be reviewed and revised as necessary • Guidelines should be finalised/developed for different operators and stakeholders and the registration and licencing of food servicing/retailing establishments • Develop formal coordination mechanisms under the Food Safety Authority between Ministry of Food, Ministry of Health and DLS for ongoing development of the Food Safety Programme and also for support in human disease outbreak investigations • Review already developed national standards applied for some animal products, milk processors factories (pasteurisation) and 'Good Animal Husbandry Practices' • Support preparation of annual reports of the Food Safety Programme
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with Food Safety Authority, Ministry of Food, Ministry of Health, Ministry of Local Government Ministry of Commerce and with processors and industry
	IV.1, 2, 3. Legislation	Review and revision of Act if necessary, development of new Regulations
	I.3. Continuing Education	Staff training
	III.1 Communication	Communications to raise awareness and committed of establishments
	I.11.Management of resources and operations	Staff and equipment will be required to undertake this work
	III.3. Official representation	

5. Objectively verifiable indicators

- Reports of formal coordination meetings
- Revised Acts and promulgated Regulations
- Documented authorisation and inspection programme for processing establishments servicing the national market
- Evidence of staff training
- Reported results of inspections
- Annual reports of the Food Safety Programme

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

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)	4	300.00		1,200	
Sampling collection equipment					
Sub-total Consumable resources				**1,200**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***1,200***	
Total in	***Taka***			***90,000***	

VPH 4 – II-9. Veterinary medicines and biologicals

1. Definition of this PVS Critical Competency

The authority and capability of the VS to regulate veterinary medicines and veterinary biological, in order to ensure their responsible and prudent use, i.e. the marketing authorisation, registration, import, manufacture, quality control, export, labelling, advertising, distribution, sale (includes dispensing) and use (includes prescribing) of these products.

2. Desired Level of Advancement

1. The VS cannot regulate veterinary medicines and veterinary biologicals.

2. The VS have some capability to exercise regulatory and administrative control over veterinary medicines and biologicals in order to ensure their responsible and prudent use.

3. The VS exercise effective regulatory and administrative control for most aspects related to the control over veterinary medicines and biologicals in order to ensure their responsible and prudent use.

4. The VS exercise comprehensive and effective regulatory and administrative control of veterinary medicines and biologicals.

5. The control systems are regularly audited, tested and updated when necessary.

3. Strategy to reach the Desired Level of Advancement

Develop a comprehensive control programme to ensure the responsible and prudent use of veterinary medicines and biologicals

4. Activities to implement

Specific activities		• Work with the Ministry of Health to establish a 'veterinary section', under Bangladesh Drug Administration, to manage the registration, import/manufacture, distribution, sale/use etc. of veterinary medicines and biologicals • Identify priority veterinary public health concerns with Ministry of Health and other stakeholders and investigate and inform the scientific basis for these concerns. Note that there are major political and community concerns over the use of hormones – the evidence for this need sot be reviewed and an appropriate control programme developed, if necessary. • Review and revise legislation as necessary • Consult with veterinarians (public and private sectors), importers/manufacturers, distributors, pharmacies, producers, industry and feed suppliers on how best to promote prudent use of veterinary medicines and biologicals • Develop with the Drug Administration a Veterinary Drug Control Programme to monitor and manage the use of veterinary medicines and biological –VPH Department of DLS to lead. • Review veterinary medicines and biologicals registration policy – whether it is the necessary to test all products in country or whether external quality assurance and registration data is sufficient • Train staff • Use a database to record all registered products (medicines and biologicals) and the quantities produced/imported • Undertake initial monitoring programme of the production/import, distribution and sale of veterinary medicines and biologicals • Identify critical issues in the management and use of veterinary medicines and biologicals and work to bring veterinary drug distribution and use in the field more under the control of veterinarians and veterinary paraprofessionals (rather than pharmacists). • Undertake a targeted communication and awareness campaign • Continue to monitor the use of veterinary medicines and biologicals
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with the pharmaceutical industry, wholesalers, veterinarians, pharmacies, feed producers and producers and the Ministry of Health
	IV.1, 2, 3. Legislation	Review and revise if necessary
	I.3. Continuing Education	Train staff
	III.1 Communication	Communications and extension campaign to increase compliance
	I.11.Management of resources and operations	Management and resources required to implement the Veterinary Drug Control Programme
	III.3. Official representation	

5. Objectively verifiable indicators

- Records of consultation
- Review of legislation
- Documented Veterinary Drug Control Programme
- Records of staff training
- Communication materials
- Reports of monitoring

VETERINARY PUBLIC HEALTH - 4 CC: II-9. Veterinary medicines and biologicals					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Database for drug regsitration and use	1	50,000	5	10,000	
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**10,000**	
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication	64	600.00		38,400	
Consultation (number of 1 day meetings)	12	600.00		7,200	
Sampling collection equipment					
Sub-total Consumable resources				**45,600**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***55,600***	
Total in	***Taka***			***4,170,000***	

VPH 5 – II-10. Residue testing

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement

1. No residue testing programme for animal products exists in the country.

2. Some residue testing programme is performed but only for selected animal products for export.

3. A comprehensive residue testing programme is performed for all animal products for export and some for domestic consumption.

4. A comprehensive residue testing programme is performed for all animal products for export and domestic consumption.

5. The residue testing programme is subject to routine quality assurance and regular evaluation.

3. Strategy to reach the Desired Level of Advancement

Develop a pilot residue testing programme for export products and some products distributed nationally to provide scientific data on the risks posed by residues in Bangladesh.

4. Activities to implement

	Specific activities	• Review legislation and revise if necessary • Identify and consult with major feed suppliers to develop Feed Safety Assurance Programme • Develop testing for antibiotics, heavy metals and hormones in feed – these are prohibited substances; work with Veterinary Drug Control Programme (CC II.9) to identify major concerns • Identify private laboratories that might undertake the testing; implement a programme of regulation/accreditation of these laboratories • Train staff • Pilot Feed Safety Assurance Programme with major national feed producers – review and revise if necessary • Develop operational plan for wider implementation of the Feed Safety Assurance Programme Assess if international accreditation is required by exporters
Activities linked to cross-cutting competencies	*III.2 Consultation*	Review and coordinate roles of DLS and Drug Administration. Coordinate with Ministry of Agriculture on pesticide/insecticides in use
	IV.1, 2, 3. Legislation	Review legislation to determine if any revision necessary
	I.3. Continuing Education	Train staff
	III.1 Communication	Industry support of testing programme Public awareness on prudent use of antimicrobials, pesticides etc
	I.11. Management of resources and operations	Management and resources required to implement the Residue Testing Programme
	III.3. Official representation	

5. Objectively verifiable indicators

- List of priority residues to be targeted
- List of priority products to be targeted
- Designed and documented Residue Testing Programme including MRLs
- Results of pilot studies and revisions to the sampling/testing rate
- Annual reports of Residue Testing Programme

VETERINARY PUBLIC HEALTH - 5 CC: II-10. Residue testing					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)	40.0	80			3,200
International expertise (weeks/5 years)	4.0	9,469			37,876
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**41,076**
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year	39	20		780	
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication	7	600.00		4,200	
Consultation (number of 1 day meetings)	3	300.00		900	
Sampling collection equipment					
Annual sample collection - pilot studies	1	5,000.00		5,000	
Annual testing costs - pilot studies	1	100,000.00		100,000	
Sub-total Consumable resources				**110,880**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***110,880***	***41,076***
Total in	***Taka***			***8,316,000***	***3,080,700***

VPH 6 – II-11. Animal feed safety*

1. Definition of this PVS Critical Competency

The authority and capability of the VS to regulate animal feed safety e.g. processing, handling, storage, distribution and use of both commercial and on-farm produced animal feed and feed ingredients.

2. Desired Level of Advancement

1. The VS cannot regulate animal feed safety.

2. The VS have some capability to exercise regulatory and administrative control over animal feed safety.

3. The VS exercise regulatory and administrative control for most aspects of animal feed safety.

4. The VS exercise comprehensive and effective regulatory and administrative control of animal feed safety.

5. The control systems are regularly audited, tested and updated when necessary.

3. Strategy to reach the Desired Level of Advancement

Develop capacity to implement field control of feed safety with necessary supporting testing

4. Activities to implement

Specific activities		• Review legislation and revise if necessary • Identify and consult with major feed suppliers to develop Feed Safety Assurance Programme • Develop testing for antibiotics, heavy metals and hormones in feed – these are prohibited substances; work with Veterinary Drug Control Programme (CC II.9) to identify major concerns • Identify private laboratories that might undertake the testing; implement a programme of regulation/accreditation of these laboratories • Train staff • Pilot Feed Safety Assurance Programme with major national feed producers – review and revise if necessary • Develop operational plan for wider implementation of the Feed Safety Assurance Programme • Assess if international accreditation is required by exporters
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with feed industry and producers
	IV.1, 2, 3. Legislation	Review and revise if necessary
	I.3. Continuing Education	Train staff
	III.1 Communication	
	I.11. Management of resources and operations	Management and resources required to implement the Feed Safety Assurance Programme
	III.3. Official representation	

5. Objectively verifiable indicators

- Documented review of legislation
- Testing capacity developed
- Records of staff training
- Documented Feed Safety Assurance Programme
- Results of Feed Safety Assurance Programme

* not assessed in PVS Evaluation

VETERINARY PUBLIC HEALTH - 6 CC: II-11. Animal feed safety					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set	1	2,000	5	400	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**400**	
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)	3	300.00		900	
Sampling collection equipment					
Pilot testing programme - sampling and testing	1	25,000.00		25,000	
Sub-total Consumable resources				**25,900**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***26,300***	
Total in	***Taka***			***1,972,500***	

C. Critical Competencies for Animal Health

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

A. Passive epidemiological surveillance

1. Definition of this PVS Critical Competency

The authority and capability of the VS to determine, verify and report on the sanitary status of the animal populations, including wildlife, under their mandate.

2. Desired Level of Advancement (DLA)

1. The VS have no passive surveillance programme.

2. The VS conduct passive surveillance for some relevant diseases and have the capacity to produce national reports on some diseases.

3. The VS conduct passive surveillance in compliance with OIE standards for some relevant diseases at the national level through appropriate networks in the field, whereby samples from suspect cases are collected and sent for laboratory diagnosis with evidence of correct results obtained. The VS have a basic national disease reporting system.

4. The VS conduct passive surveillance and report at the national level in compliance with OIE standards for most relevant diseases. Producers and other interested parties are aware of and comply with their obligation to report the suspicion and occurrence of notifiable diseases to the VS.

5. The VS regularly report to producers and other interested parties and the international community (where applicable) on the findings of passive surveillance programmes.

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

Adequately plan and resource a functioning field surveillance and diagnostic system

4. Activities to implement (chronological)

Specific activities		Strengthen the effectiveness of field animal health network and reporting: • Review field network staff numbers and capabilities • Review notifiable diseases legislation and arrange for regular updating of the list • Develop passive surveillance protocols/procedures/job descriptions including in abattoir inspection • Based on these protocols, train field staff (veterinarians and veterinary paraprofessionals) in passive surveillance covering areas such as notifiable disease recognition, reporting and sampling • Provide adequate resources (offices, transport, phones, sampling equipment and transport) • Improve communications with others that may assist with reporting (farmers, animal health workers, communities, etc.), including awareness of support available (diagnoses, treatments and compensation) to promote early reporting Increase sampling rates: • Develop realistic targets by species and production system • Train field staff in sampling protocols and techniques • Report activity to all levels (district, division, national) and provide feedback to submitters Improve diagnostic capacity • See CCII.1 Develop disease information system and analysis: • Continue to develop and enhance a national web-based information management system • Establish and properly resource national and divisional Epidemiology Units to provide national/sub-national collation/analysis
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with industry and MoH
	IV.1, 2, 3. Legislation	Review notifiable diseases legislation and listing
	I.3. Continuing Education	Train staff as above
	III.1 Communication	Communicate with stakeholders on the obligation to report suspect diseases
	I.11. Management of resources and operations	Review field network staffing Develop information management system as above, including capture of abattoir surveillance data.
	III.3. Official representation	

5. Objectively verifiable indicators

- Reports reviewing the animal health field network
- Documented passive surveillance protocols and procedures; evidence of communications on disease reporting with farmers and animal health workers; training of staff delivered
- Higher levels of sampling and exclusion testing**; n**ational level disease reports/mapping etc.

ANIMAL HEALTH - 1 CC: II-5. Epidemiological surveillance and early detection A. Passive epidemiological surveillance					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()	172,000				
Maintenance cost per (sq m)	86,000	20	1	1,720,000	
Renovation cost per (sq m)	43,000	133	25	228,760	4,575,200
Building cost per (sq m)	43,000	400	25	688,000	13,760,000
Transport (Purchasing cost)					
Motorbikes	7,150	1,333	6	1,588,492	1,588,492
Twin cab pick ups	400	60,000	10	2,400,000	12,000,000
4x4 vehicles	30	93,333	10	279,999	1,399,995
AHIS database (design/build)	1	150,000	7	21,429	42,857
AHIS Computers + peripherals	500	1,000	7	71,429	142,857
Staff office equipment set	1,000	2,000	5	400,000	
Other specific office equipment set					
Other specific equipment					
Microscopes	250	500	10	12,500	62,500
Generators	571	1,000	5	114,200	
Sub-total Material investments				**7,524,808**	**33,571,901**
Non material investments					
Training					
Specialised training (person-months/5 years)	125.0	1,620			202,500
Continuing education (person-days/year)	45,250.0	48		2,150,883	
National expertise (days/5 years)	400.0	80			32,000
International expertise (weeks/5 years)	12.0	9,469			113,628
Special funds (/ 5 years) for …					
Sub-total non material expenditure				**2,150,883**	**348,128**
Salaries					
Veterinarians	1,500.0	5,559		8,338,500	
Other university degree	230.0	2,917		670,910	
Veterinary para-professionals	7,550.0	1,612		12,170,600	
Support staff	2,855.0	1,363		3,891,365	
Sub-total Salaries				**25,071,375**	
Consumable resources					
Administration		20%		5,014,275	
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year	34,320,000	0.03		915,200	
Km or miles cars / year	6,000,000	0.21		1,280,000	
Km or miles 4x4 vehicle / year	540,000	0.37		201,600	
Specific costs					
Targeted specific communication	500	600.00		300,000	
Consultation (number of 1 day meetings)	1,000	300.00		300,000	
Sample containers etc	108,600	5.00		543,000	
Autopsy kits and sampling equipment	9,050	25.00		226,250	
Sub-total Consumable resources				**8,780,325**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***43,527,391***	***33,920,029***
Total in	***Taka***			***3,264,554,336***	***2,544,002,171***

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

B. Active epidemiological surveillance

1. Definition of this PVS Critical Competency

The authority and capability of the VS to determine, verify and report on the sanitary status of the animal populations, including wildlife, under their mandate.

2. Desired Level of Advancement (DLA)

1. The VS have no active surveillance programme.

2. The VS conduct active surveillance for some relevant diseases (of economic and zoonotic importance) but apply it only in a part of susceptible populations and/or do not update it regularly.

3. The VS conduct active surveillance in compliance with scientific principles and OIE standards for some relevant diseases and apply it to all susceptible populations but do not update it regularly.

4. The VS conduct active surveillance in compliance with scientific principles and OIE standards for some relevant diseases, apply it to all susceptible populations, update it regularly and report the results systematically.

5. The VS conduct active surveillance for most or all relevant diseases and apply it to all susceptible populations. The surveillance programmes are evaluated and meet the country's OIE obligations.

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

Prioritise, design and implement active surveillance programmes to support disease control

4. Activities to implement (chronological)

Specific activities		• Define priority disease control programs where active surveillance is required to monitor progress and effectiveness • Review demographic information requirements and accuracy (e.g. livestock census) • Identify level of surveillance required and design and document epidemiologically sound active surveillance programs, including both for prevalence and post-vaccination sero-surveillance • Train and equip staff for sampling • Train and equip laboratories for testing (see CCII.1) • Collate analyse and report results at national and sub-national levels via the Epidemiology Unit
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with farmer groups, human health authorities on the highest priority diseases for them
	IV.1, 2, 3. Legislation	Review legislation relevant to active surveillance (e.g. powers to undertake sampling)
	I.3. Continuing Education	Train field staff in study design and sampling procedures
	III.1 Communication	Communicate active surveillance programme and its requirements to stakeholders
	I.11. Management of resources and operations	Develop information management system for active surveillance programme reporting
	III.3. Official representation	Report results of key active surveillance programmes internationally

5. Objectively verifiable indicators

- Documented active surveillance program for priority diseases
- Sampling training conducted
- Active surveillance results reported at all levels

ANIMAL HEALTH - 2 CC: II-5. Epidemiological surveillance and early detection B. Active epidemiological surveillance					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)	3.0	1,620			4,860
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**4,860**
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling equipment	10,000	5.00		50,000	
Other materials	1,000	5.00		5,000	
Sub-total Consumable resources				**55,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***55,000***	***4,860***
Total in	***Taka***			***4,125,000***	***364,500***

AH 3 – II-6. Emergency response

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. The VS have no field network or established procedure to determine whether a sanitary emergency exists or the authority to declare such an emergency and respond appropriately.

2. The VS have a field network and an established procedure to determine whether or not a sanitary emergency exists, but lack the necessary legal and financial support to respond appropriately.

3. The VS have the legal framework and financial support to respond rapidly to sanitary emergencies, but the response is not coordinated through a chain of command. They may have national contingency plans for some exotic diseases but they are not updated / tested.

4. The VS have an established procedure to make timely decisions on whether or not a sanitary emergency exists. The VS have the legal framework and financial support to respond rapidly to sanitary emergencies through a chain of command. They have national contingency plans for some exotic diseases that are regularly updated / tested.

5. The VS have national contingency plans for all diseases of concern; including coordinated actions with relevant Competent Authorities, all producers and other interested parties through a chain of command. These are regularly updated, tested and audited.

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

Establish a national emergency animal disease preparedness and response programme within DLS

4. Activities to implement (chronological)

Specific activities		• Document a procedure to determine when a sanitary emergency exists • Review and update legislation as necessary (power to seize/destroy, quarantine, compensate, etc.) • Review financial resourcing arrangements for emergency animal disease response and develop as required, such as with Disaster Management agencies • Develop contingency plans for priority emergency diseases • Identify and train staff and others in emergency animal disease response and incorporate in job descriptions (to be led by Manager of Emergency Response) • Design and run simulation exercises • Review legislative and administrative arrangements for compensation to eliminate issues arising from HPAI outbreak experience – including delays in funding of compensation, fair valuation, farm registration requirements and compensation of only culled healthy birds
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with stakeholders
	IV.1, 2, 3. Legislation	Review as above
	I.3. Continuing Education	Staff training as above and run simulation exercises
	III.1 Communication	
	I.11. Management of resources and operations	Review emergency resourcing arrangements, including for compensation of farmers Develop contingency plans
	III.3. Official representation	

5. Objectively verifiable indicators

- Documented procedure for declaring an emergency
- Legislation reviewed
- Financial arrangements clarified and documented
- Contingency plans developed
- Staff trained in emergency response

ANIMAL HEALTH - 3 CC: II-6. Emergency response					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)	3	300.00		900	
Sampling collection equipment					
Simulation exercises	7	10,000.00		70,000	
aseline stores of emergency response equipment	1	25,000.00		25,000	
Sub-total Consumable resources				**95,900**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***95,900***	
Total in	***Taka***			***7,192,500***	

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

1. Definition of this PVS Critical Competency

The authority and capability of the VS to actively perform actions to prevent, control or eradicate OIE listed diseases and/or to demonstrate that the country or a zone are free of relevant diseases.

2. Desired Level of Advancement (DLA)

1. The VS have no authority or capability to prevent, control or eradicate animal diseases.

2. The VS implement prevention, control or eradication programmes for some diseases and/or in some areas with little or no scientific evaluation of their efficacy and efficiency.

3. The VS implement prevention, control or eradication programmes for some diseases and/or in some areas with scientific evaluation of their efficacy and efficiency.

4. The VS implement prevention, control or eradication programmes for all relevant diseases but with scientific evaluation of their efficacy and efficiency of some programmes.

5. The VS implement prevention, control or eradication programmes for all relevant diseases with scientific evaluation of their efficacy and efficiency consistent with relevant OIE international standards.

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

Develop, implement, monitor and review national disease control programmes for priority diseases

4. Activities to implement (chronological)

Specific activities		• Review the rationale of the current disease control programmes considering: economic or human health impact, disease prevalence (via active surveillance), vaccine production/costs/effectiveness, logistics and cold chain requirements, effectiveness and feasibility of movement controls, post vaccination sero-surveillance, etc. Consider the philosophy of disease control – sustainability and long term reduction/elimination of disease or social support to reduce loss of individual animals and protect the individual • Define and limit, based on the review, the highest priority disease control programmes (e.g. PPR, anthrax, FMD) • Design, fund, implement, monitor and evaluate the priority disease control programmes • Explore options for private sector contributions/joint programmes (e.g. poultry disease control). • Explore coordination with human health sector on zoonoses control for rabies and anthrax
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with farmers and human health authorities on their disease priorities
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Train staff in disease control (eg. epidemiology, vaccination/treatments, movement control)
	III.1 Communication	Communicate disease control programmes to stakeholders
	I.11. Management of resources and operations	Design and document disease control programmes for highest priority disease(s) Report results regularly, including evaluation of progress and effectiveness
	III.3. Official representation	

5. Objectively verifiable indicators

- Documented disease control programs
- Trained staff
- Evidence of communications and consultation with farmers and human health authorities
- Results reported regularly, including evaluation of effectiveness

ANIMAL HEALTH - 4 CC: II-7. Disease prevention, control and eradication					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Cool vans (vaccine delivery)	3	33,000	10	9,900	49,500
Vaccine fridges	14	5,000	10	7,000	35,000
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**16,900**	**84,500**
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Medicines for clinical services/treatments	1	1,000,000.00		1,000,000	
Vaccines	1	2,300,000.00		2,300,000	
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Vaccines					
Cool boxes	5,000	40.00		200,000	
Temperature loggers	600	100.00		60,000	
Sub-total Consumable resources				**3,560,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***3,576,900***	***84,500***
Total in	***Taka***			***268,267,500***	***6,337,500***

AH 5 – II-13. Animal welfare

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. There is no national legislation on animal welfare.

2. There is national animal welfare legislation for some sectors.

3. In conformity with OIE standards, animal welfare is implemented for some sectors (e.g. for the export sector).

4. Animal welfare is implemented in conformity with all relevant OIE standards.

5. Animal welfare is implemented in conformity with all relevant OIE standards and programmes are subjected to regular audits.

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

Enact new animal welfare legislation
Target priority sectors for implementation via a compliance program

4. Activities to implement (chronological)

Specific activities		• Review draft animal welfare legislation and revise with reference to OIE standards • Develop, with consultation, a pilot animal welfare compliance program for target sectors (e.g. exports, live transport) • Design and implement a communication and awareness program for staff, stakeholders and public • Training of staff in implementing a compliance program
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult as above
	IV.1, 2, 3. Legislation	Review with reference to OIE standards
	I.3. Continuing Education	Train staff
	III.1 Communication	Communicate with stakeholders
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

- Legislation reviewed in light of OIE standards
- Compliance program developed and implemented

ANIMAL HEALTH - 5 CC: II-13. Animal Welfare					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication	64	1,000.00		64,000	
Consultation (number of 1 day meetings)	10	300.00		3,000	
Sampling collection equipment					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***64,000***	
Total in	***Taka***			***4,800,000***	

D. Critical Competencies for Laboratory

LAB 1 – II-1. Veterinary laboratory diagnosis

A. Access to veterinary laboratory diagnosis

1. Definition of this PVS Critical Competency

The authority and capability of the VS to have access to laboratory diagnosis in order to identify and record pathogenic agents, including those relevant for public health, that can adversely affect animals and animal products.

2. Desired Level of Advancement (DLA)

1. Disease diagnosis is almost always conducted by clinical means only, with no access to and use of a laboratory to obtain a correct diagnosis.

2. For major zoonoses and diseases of national economic importance, the VS have access to and use a laboratory to obtain a correct diagnosis.

3. For other zoonoses and diseases present in the country, the VS have access to and use a laboratory to obtain a correct diagnosis.

4. For diseases of zoonotic or economic importance not present in the country, but known to exist in the region and/or that could enter the country, the VS have access to and use a laboratory to obtain a correct diagnosis.

5. In the case of new and emerging diseases in the region or world, the VS have access to and use a network of national or international reference laboratories (e.g. an OIE Reference Laboratory) to obtain a correct diagnosis.

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

The DLS is able to obtain accurate diagnostic information for priority zoonoses and notifiable animal diseases and diseases subject to disease control programmes

4. Activities to implement (chronological)

Specific activities		• Train and equip field level and clinic/hospital based veterinary para-professionals to report clinical suspicion of notifiable diseases, work with upazila veterinarians to perform outbreak investigations, support collection and transport diagnostic samples to laboratories. Note: Field staff should be able to collect diagnostic samples – not just laboratory staff. • Clarify and document the roles of CDIL and the FDILs and develop and implement laboratory accession protocols including between laboratories. • Provide training to field personnel on biosecurity protocols for sample transportation with reference to IATA standards • Develop a procurement plan for distribution of sufficient supplies of diagnostic reagents and laboratory consumables • Supply reagents and consumables sufficient to support diagnosis of notifiable diseases
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult on policy – the need to redefine roles and responsibilities of DLS field services/laboratory staff
	IV.1, 2, 3. Legislation	Animal Disease Act and Rules
	I.3. Continuing Education	CE programme to progressively improve knowledge and skills of clinicians and laboratory staff
	III.1 Communication	Animal disease information flow – information management and reporting back
	I.11. Management of resources and operations	Funds for sample collection, transportation and training of staff Maintain accurate records of training given and expenditure against each activity
	III.3. Official representation	

5. Objectively verifiable indicators

- Records of staff training
- Sample submission rates
- Increase in rate of confirmation and exclusion of diagnosis of notifiable diseases

VETERINARY LABORATORIES - 1 CC: II-1.A Access to veterinary laboratory diagnosis					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set	100	2,000	5	40,000	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**40,000**	
Non material investments					
Training					
Specialised training (person-months/5 years)	25.0	1,620			40,500
Continuing education (person-days/year)	1,135.0	48		53,950	
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure				**53,950**	**40,500**
Salaries					
Veterinarians	177.0	5,559		983,943	
Other university degree		2,917			
Veterinary para-professionals	50.0	1,612		80,600	
Support staff		1,363			
Sub-total Salaries				**1,064,543**	
Consumable resources					
Administration		20%		212,909	
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment					
Test costs	1	525,000.00		525,000	
Sub-total Consumable resources				**737,909**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***1,896,402***	***40,500***
Total in	***Taka***			***142,230,145***	***3,037,500***

LAB 2 – II-1. Veterinary laboratory diagnosis*

B. Suitability of national laboratory infrastructures

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. The national laboratory infrastructure does not meet the need of the VS.

2. The national laboratory infrastructure meets partially the needs of the VS, but is not entirely sustainable, as organisational deficiencies with regard to the effective and efficient management of resources and infrastructure (including maintenance) are apparent.

3. The national laboratory infrastructure generally meets the needs of the VS. Resources and organisation appear to be managed effectively and efficiently, but their regular funding is inadequate to support a sustainable and regularly maintained infrastructure.

4. The national laboratory infrastructure generally meets the needs of the VS and is subject to timely maintenance programmes but needs new investments in certain aspects (e.g. accessibility to laboratories, number or type of analyses).

5. The national laboratory infrastructure meets the needs of the VS, and is sustainable and regularly audited.

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

Laboratory infrastructure and resources are suitable for handling the submission of diagnostic and monitoring samples

4. Activities to implement (chronological)

Specific activities		• Review the capacity and capability required of the laboratories at upazila, district/division and central levels – consider sample numbers and test types required • Inspect and determine capacity and state of repair of the laboratory facilities based on capability requirements • Develop a refurbishment and maintenance plan with budget • Undertake necessary maintenance and repairs • Ensure safe waste disposal at all laboratories (incinerators/autoclaves) – review systems and provide equipment as necssary • Construct new CDIL and VPH laboratory to be co-located
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	CE programme for upgrading knowledge and skills of laboratory staff
	III.1 Communication	
	I.11. Management of resources and operations	Planning and funding for maintenance and renewal
	III.3. Official representation	

5. Objectively verifiable indicators

- Laboratory structural/state of repair reports
- Inventories of laboratory equipment available at all diagnostic laboratories
- Records of disposal of dangerous pathogens according to SOPs

* not assessed in PVS Evaluation

VETERINARY LABORATORIES - 2 CC: II-1.B Suitability of the national veterinary network					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()	700				
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)	700	800	25	22,400	448,000
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Equipment replacement	11	20,000	5	44,000	
Additional building costs for laboratories	350	400	10	14,000	70,000
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**80,400**	**518,000**
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***80,400***	***518,000***
Total in	***Taka***			***6,030,000***	***38,850,000***

LAB 3 – II-2. Laboratory quality assurance

1. Definition of this PVS Critical Competency

The quality of laboratories (that conduct diagnosis testing or analysis for chemical residues, antimicrobial residues, toxins, or tests for biological efficacy, etc.) as measured by the use of formal QA systems including, but not limited to, participation in relevant proficiency testing programmes.

2. Desired Level of Advancement (DLA)

1. No laboratories used by the public sector VS are using formal QA systems.

2. Some laboratories used by the public sector VS are using formal QA systems.

3. All laboratories used by the public sector VS are using formal QA systems.

4. All the laboratories used by the public sector VS and most or all private laboratories are using formal QA systems.

5. All the laboratories used by the public sector VS and most or all private laboratories are using formal QA programmes that meet OIE, ISO 17025, or equivalent QA standard guidelines.

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

All laboratories at central and divisional level have a QA management plan

4. Activities to implement (chronological)

Specific activities		• Appoint QA/ biosafety management teams for CDIL, FDILs & VPH laboratories • Conduct hazard analysis, develop QA/risk management plans for CDIL, FDILs & VPH laboratories • Undertake proficiency testing and/or accreditation of AI, FMD & brucellosis diagnostic tests • Train QA Managers at CDIL, FDILs & VPH laboratories in ISO -17025 • Conduct training of all QA management teams on biosafety management • Conduct training of upazila and Union Council animal health technicians in safe sample collection and transportation • Develop and implement SOPs for QA, biosafety and biosecurity • Conduct regular audits/evaluation of QA/ biosafety management plans
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	Veterinary Diagnostic Laboratory Regulations
	I.3. Continuing Education	CE to progressively strengthen knowledge and skills of laboratory technologists
	III.1 Communication	
	I.11. Management of resources and operations	QA requires considerable management input
	III.3. Official representation	

5. Objectively verifiable indicators

- QA management team assigned
- QA laboratory management plans
- Biosafety management plans
- Records of controls undertaken to implement QA/biosafety management plans

VETERINARY LABORATORIES - 3 CC: II-2. Laboratory quality assurance					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)	60.0	48		2,852	
National expertise (days/5 years)		80			
International expertise (weeks/5 years)	15.0	9,469			142,035
Special funds (/ 5 years) for …					
Sub-total non material expenditure				**2,852**	**142,035**
Salaries					
Veterinarians		5,559			
Other university degree	12.0	2,917		35,004	
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries				**35,004**	
Consumable resources					
Administration		20%		7,001	
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment					
PT testing	1	6,000.00		6,000	
Sub-total Consumable resources				**13,001**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***50,857***	***142,035***
Total in	***Taka***			***3,814,260***	***10,652,625***

E. Critical Competencies for Management of Veterinary Services

General Competencies

MVS – I-4. Technical independence

1. Definition of this PVS Critical Competency

The capability of the VS to carry out their duties with autonomy and free from commercial, financial, hierarchical and political influences that may affect technical decisions in a manner contrary to the provisions of the OIE (and of the WTO SPS Agreement where applicable).

2. Desired Level of Advancement (DLA)

1. The technical decisions made by the VS are generally not based on scientific considerations.

2. The technical decisions take into account the scientific evidence, but are routinely modified to conform to non-scientific considerations.

3. The technical decisions are based on scientific evidence but are subject to review and possible modification based on non-scientific considerations.

4. The technical decisions are made and implemented in general accordance with the country's OIE obligations (and with the country's WTO SPS Agreement obligations where applicable).

5. The technical decisions are based only on scientific evidence and are not changed to meet non-scientific considerations.

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

Ensure technical decision-making is based on scientific considerations through strengthening the technical chain of command and addressing risks with conflicts of interest, poor salary levels and secondary employment

4. Activities to implement (chronological)

Specific activities		• Develop an independent technical chain of command under the CVO. For example, the CVO should have power to immediately report disease confirmations, rather than this being reviewed by higher levels of government • Review the legal provisions for the declaration of conflicts of interest and ensure these are widely communicated, understood and complied with • Implement the, long-awaited, pay rise (due July 2015) to reduce the risks that lower salaries pose to technical independence • Review how secondary employment is managed by the VS. All forms of secondary employment should be declared and reviewed for risks of commercial or other conflicts of interest • Review provisions for field veterinarians and veterinary para-professionals to carry out private practice. Note: This is allowed outside work hours, but there is a conflict of interest in having the capacity for private practice earning vs official employment. Rules governing this area need to be specified and communicated to all staff, with sanctions for operating outside these rules • Review the risks of conflicts of interest in abattoir inspection given meat inspectors are employed by municipal corporations, who also own the abattoirs. DLS should manage both inspection of slaughter premises and meat inspection as they are an independent technical authority. • Review the risks to technical independence in the newly established land border posts, by documenting the technical role of DLS and specifying and communicating protocols and procedures for staff
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	Review legislation that addresses conflicts of interest, providing appropriate powers to the CVO
	I.3. Continuing Education	Train staff in provisions
	III.1 Communication	
	I.11. Management of resources and operations	Management and oversight will be required
	III.3. Official representation	

5. Objectively verifiable indicators

- Documented and communicated legal provisions dealing with risks of conflicts of interest and secondary employment.
- Sanctions implemented for breaches to the above provisions.
- Increased salaries.
- Specified protocols/rules for private veterinary practice by staff, including sanctions for those that break rules.
- Increased powers to the CVO to act independently without the risk of political or commercial influence.

MANAGEMENT OF VETERINARY SERVICES - General competencies CC: I-4. Technical independence					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Taka***				

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

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. Substantial changes to the organisational structure and/or leadership of the public sector of the VS frequently occur (e.g. annually) resulting in lack of sustainability of policies.

2. Sustainability of policies is affected by changes in the political leadership and/or the structure and leadership of the VS.

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

4. Policies are sustained over time through national strategic plans and frameworks and are not affected by changes in the political leadership and/or the structure and leadership of VS.

5. Policies are sustained over time and the structure and leadership of the VS are stable. Modifications are based on an evaluation process, with positive effects on the sustainability of policies.

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

Reduce the high turnover of senior level positions in the VS by developing longer term advocacy and strategies to ensure there is stability of leadership and policies

4. Activities to implement (chronological)

Specific activities		• Introduce merit-based recruitment to reduce the high turnover of senior positions (DG and CVO). Note that these positions seem to be appointed shortly before the retirement age of 59 • All new positions or promotions should be advertised and require a formal application and interview • Review career pathways for all staff including central, laboratory and field staff to balance the need for broad experience with specialisation • Review the DLS organogram (see CC I.6A) to ensure there is a technical chain of command and that the structure reflects the VS regulatory functions (e.g. trade, animal health, veterinary public health, laboratories, etc.) • Develop longer term VS strategic plans that promote the sustainability of policies and programmes
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with Public Service Commission and staff on new systems
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	Documented HR policies and strategy documents.
	III.3. Official representation	

5. Objectively verifiable indicators

- Documented procedures for merit based recruitment.
- Job advertisements and job interviews.
- Longer tenures for senior positions such as DG and CVO.
- Longer term strategy documents that clarify and stabilise policies over time.

MANAGEMENT OF VETERINARY SERVICES - General competencies CC: I-5. Stability of structures and sustainability of policies					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Taka***				

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

A. Internal coordination (chain of command)

1. Definition of this PVS Critical Competency

The capability of the VS to coordinate its resources and activities (public and private sectors) with a clear chain of command, from the central level (the Chief Veterinary Officer) to the field level of the VS in order to implement all national activities relevant for the Codes (i.e. surveillance, disease control and eradication, food safety and early detection and rapid response programmes).

2. Desired Level of Advancement (DLA)

1. There is no formal internal coordination and the chain of command is not clear.

2. There are internal coordination mechanisms for some activities but the chain of command is not clear.

3. There are internal coordination mechanisms and a clear and effective chain of command for some activities.

4. There are internal coordination mechanisms and a clear and effective chain of command at the national level for most activities.

5. There are internal coordination mechanisms and a clear and effective chain of command for all activities and these are periodically reviewed / audited and updated.

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

Develop a clear chain of command for regulatory veterinary functions within DLS

4. Activities to implement (chronological)

Specific activities		• Review organisational structure and revise to deliver effective coordination and management. Note a review is currently underway. • Develop a technical chain of command within DLS, under the CVO, for regulatory animal health functions including sanitary trade issues, disease surveillance, disease control and emergency response with a structure that reflects these functions from central level down to the field – where it should incorporate veterinary supervision of veterinary para-professionals • Develop a technical chain of command for ante and post mortem inspection and inspection of national abattoirs, via liaison with municipal corporations and the Food Safety Authority • Develop a technical chain of command for veterinary medicines regulation, distribution and use. A target should be veterinary (and not pharmacy) control over veterinary drug distribution and use. • Upgrade management skills and understanding of quality management systems and their implementation – implement training programme for managers
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with staff to develop understanding and commitment to change
	IV.1, 2, 3. Legislation	Development of Regulations under the Animal Slaughter and Quality of Meat Control Act, defining roles and responsibilities of DLS food safety inspectorate
	I.3. Continuing Education	Staff training in management, new systems and coordination mechanisms
	III.1 Communication	
	I.11. Management of resources and operations	Core management task
	III.3. Official representation	

5. Objectively verifiable indicators

- A functioning chain of command in animal health under the CVO, within DLS, from central to field levels covering priority functions of surveillance, disease control and emergency response.
- Greater veterinary control over food safety in slaughterhouses established and being implemented.
- Greater veterinary control over drug regulation established and beginning to be implemented.
- Reports of improved border control and statistics available

MANAGEMENT OF VETERINARY SERVICES - General competencies

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

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()	24,400				
Maintenance cost per (sq m)	16,600	20	1	332,000	
Renovation cost per (sq m)	7,800	133	25	41,496	829,920
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes	162	1,333	6	35,991	35,991
Pick ups	154	60,000	10	924,000	4,620,000
4x4 vehicles	10	93,333	10	93,333	466,665
Staff office equipment set	75	2,000	5	30,000	
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**1,456,820**	**5,952,576**
Non material investments					
Training					
Specialised training (person-months/5 years)	52.0	1,620			84,240
Continuing education (person-days/year)	2,935.0	48		139,510	
National expertise (days/5 years)		80			
International expertise (weeks/5 years)	10.0	9,469			94,690
Special funds (/ 5 years) for …					
Sub-total non material expenditure				**139,510**	**178,930**
Salaries					
Veterinarians	249.0	5,559		1,384,191	
Other university degree	79.0	2,917		230,443	
Veterinary para-professionals	259.0	1,612		417,508	
Support staff	521.0	1,363		710,123	
Sub-total Salaries				**2,742,265**	
Consumable resources					
Administration		20%		548,453	
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year	777,600	0.03		20,736	
Km or miles cars / year	2,310,000	0.21		492,800	
Km or miles 4x4 vehicle / year	180,000	0.37		67,200	
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment					
Sub-total Consumable resources				**1,129,189**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***5,467,784***	***6,131,506***
Total in	***Taka***			***410,083,825***	***459,862,950***

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

B. External coordination

1. Definition of this PVS Critical Competency

The capability of the VS to coordinate its resources and activities (public and private sectors) at all levels with other relevant authorities as appropriate, in order to implement all national activities relevant for OIE Codes (i.e. surveillance, disease control and eradication, food safety and early detection and rapid response programmes).

Relevant authorities include other ministries and competent authorities, national agencies and decentralised institutions.

2. Desired Level of Advancement (DLA)

1. There is no external coordination.

2. There are informal external coordination mechanisms for some activities, but the procedures are not clear and/or external coordination occurs irregularly.

3. There are formal external coordination mechanisms with clearly described procedures or agreements for some activities and/or sectors

4. There are formal external coordination mechanisms with clearly described procedures or agreements at the national level for most activities, and these are uniformly implemented throughout the country.

5. There are national external coordination mechanisms for all activities and these are periodically reviewed and updated.

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

Establish formal coordination arrangements with other relevant government agencies including Ministry of Commerce (sanitary trade issues), MoH (zoonoses, AMR and food safety), Drug Administration (veterinary medicines regulation) and Ministry of Food / Ministry of Local Government/municipal corporations (abattoir licensing and inspections)

4. Activities to implement (chronological)

Specific activities		• Liaise with the Ministry of Commerce (SPS contact point) to ensure that DLS provides technical leadership and advice on sanitary trade issues and decision making, relating to both exports (Bengal Meat, hatching eggs) and imports (border inspection posts) • Improve liaison with MoH for zoonoses by establishing regular formal coordination meetings; broaden the mandate of the current Avian Influenza group to a generic zoonoses/One Health group covering other zoonoses such as rabies, brucellosis and anthrax, AMR issues (implementation of a joint strategy) and residues issues • Liaise with the Food Safety Authority to clarify roles in food safety, particularly the DLS role in slaughterhouse premises and meat inspection, in partnership with the Ministry of Local Government/municipal corporations • Liaise with the Drug Administration (a veterinary section is to be developed), to influence and improve veterinary control of veterinary medicines, particularly their distribution and use • Liaise with local councils for rabies and stray dog control • Consider the development of formal MoUs with other agencies including Health, Commerce, Food Safety Authority, Drug Administration and municipal corporations to clarify roles/responsibilities
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with the Ministry of Local Government/municipal corporations, MoH and Drug Administration (Ministry of Food) to strengthen the technical chain of command in food safety and drug regulation.
	IV.1, 2, 3. Legislation	Review legislation to ensure chain of command applies across VS functions
	I.3. Continuing Education	Staff training will be required on improved mechanisms of coordination
	III.1 Communication	
	I.11. Management of resources and operations	Consider the development of MoUs to clarify roles and responsibilities.
	III.3. Official representation	

5. Objectively verifiable indicators

- Documented MoUs with relevant partners.
- Evidence of ongoing formal coordination/collaboration (minutes of joint meetings, collaboratively developed planning documents etc.)

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

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)	12	300.00		3,600	
Sampling collection equipment					
Sub-total Consumable resources				**3,600**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***3,600***	
Total in	***Taka***			***270,000***	

MVS – II-3. Risk analysis

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. Risk management measures are not usually supported by risk assessment.

2. The VS compile and maintain data but do not have the capability to carry out risk analysis. Some risk management measures are based on risk assessment.

3. The VS compile and maintain data and have the capability to carry out risk analysis. The majority of risk management measures are based on risk assessment.

4. The VS conduct risk analysis in compliance with relevant OIE standards, and base their risk management measures on the outcomes of risk assessment.

5. The VS are consistent in basing sanitary measures on risk assessment, and in communicating their procedures and outcomes internationally, meeting all their OIE obligations (including WTO SPS Agreement obligations where applicable).

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

Develop capacity and apply risk analysis to priority work areas such as border security and disease control

4. Activities to implement (chronological)

Specific activities		• Seek and support training in risk analysis for selected members of the Epidemiology Unit from an external expert or through a recognised course • Establish a risk analysis staff position initially; consider developing a risk analysis unit in time • Develop information management systems for the collation of VS data for use in risk analysis (including an animal health information system – see CCII.5A) • Apply risk analysis to planning in priority areas such as border security and disease control programmes
Activities linked to cross-cutting competencies	*III.2 Consultation*	
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Seek and support training in risk analysis for staff
	III.1 Communication	
	I.11. Management of resources and operations	Establish risk analysis position and develop information management systems
	III.3. Official representation	

5. Objectively verifiable indicators

- Training in risk analysis undertaken
- Job description(s) include risk analysis as part of responsibilities
- Information management system developed
- Risk analysis applied to border security and disease control programmes

MANAGEMENT OF VETERINARY SERVICES - General competencies CC: II-3. Risk analysis					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)	5.0	1,620			8,100
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)	5.0	9,469			47,345
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**55,445**
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)	5	300.00		1,500	
Sampling collection equipment					
Sub-total Consumable resources				**1,500**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***1,500***	***55,445***
Total in	***Taka***			***112,500***	***4,158,375***

MVS – III-4. Accreditation / authorisation / delegation

1. Definition of this PVS Critical Competency

The authority and capability of the public sector of the VS to accredit / authorise / delegate the private sector (e.g. private veterinarians and laboratories), to carry out official tasks on its behalf.

2. Desired Level of Advancement (DLA)

1. The public sector of the VS has neither the authority nor the capability to accredit / authorise / delegate the private sector to carry out official tasks.

2. The public sector of the VS has the authority and capability to accredit / authorise / delegate to the private sector, but there are no current accreditation / authorisation / delegation activities.

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

4. The public sector of the VS develops and implements accreditation / authorisation / delegation programmes, and these are routinely reviewed.

5. The public sector of the VS carries out audits of its accreditation / authorisation / delegation programmes, in order to maintain the trust of their trading partners and stakeholders.

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

Explore options for delegating activities to the private veterinary sector and endorse policies to support expansion of the private veterinary sector

4. Activities to implement (chronological)

Specific activities		• Develop authority to officially delegate and accredit notifiable diseases testing to the, currently two, high quality private veterinary laboratories by reviewing their capacity, costs, contract options and how DLS might ensure quality assurance is maintained • Explore the policy of official delegation to the few practicing private veterinarians e.g. AI sampling to poultry veterinarians, brucellosis testing to dairy veterinarians, and rabies vaccination to small animal veterinarians in cities • Develop a longer term DLS policy on the privatisation of clinical veterinary services. (Note that official delegation of tasks can support private veterinarians and/or private veterinary para-professionals).
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with private veterinarians and laboratories to explore their interest and capability to undertake officially delegated tasks.
	IV.1, 2, 3. Legislation	Review legislation relating to official delegation/accreditation.
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	Delegation of VS services requires careful and ongoing management
	III.3. Official representation	

5. Objectively verifiable indicators

- A review of the legislative authority of the VS to delegate tasks to the private sector
- Evidence of consultation (meeting minutes) with the private sector on official delegation
- Evidence of policy development (e.g. scoping/discussion paper) on delegation to the private sector

MANAGEMENT OF VETERINARY SERVICES - General competencies CC: III-4. Accreditation / Authorisation / Delegation					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication *Consultation (number of 1 day meetings)* *Sampling collection equipment*	4	600.00		2,400	
Sub-total Consumable resources				**2,400**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***2,400***	
Total in	***Taka***			***180,000***	

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

A. VSB authority

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. There is no legislation establishing a VSB.

2. The VSB regulates veterinarians only within certain sectors of the veterinary profession and/or does not systematically apply disciplinary measures.

3. The VSB regulates veterinarians in all relevant sectors of the veterinary profession and applies disciplinary measures.

4. The VSB regulates functions and competencies of veterinarians in all relevant sectors and veterinary para-professionals according to needs

5. The VSB regulates and applies disciplinary measures to veterinarians and veterinary para-professionals in all sectors throughout the country.

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

Increase authority of the VSB by revising legislation and including veterinary para-professionals

4. Activities to implement (chronological)

Specific activities		• Finalise review and revision of Veterinary Professionals Bill in compliance with OIE standards • Develop and implement regulations for implementation and enforcement including, provisions for the registration of veterinary para-professionals, a 'Code of Ethics' for veterinary para-professionals and CE requirements
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with the Veterinary Association of Bangladesh, Bangladesh Civil Service Association, Non-cadre Officers & Employees Association, DLS, e.g. for delegation of public functions to private veterinarians/veterinary para-professionals
	IV.1, 2, 3. Legislation	Develop and implement Regulations to implement and enforce the Act
	I.3. Continuing Education	CE Programme needs to be developed and approved by Council. Consider making provisions for mandatory CE requirement for annual retention of registration
	III.1 Communication	Create public awareness on the quality control of veterinary education and the implications of registration of veterinarians and veterinary para-professionals
	I.11. Management of resources and operations	Consider introducing annual retention fees in order to finance Council activities – move towards financial autonomy
	III.3. Official representation	

5. Objectively verifiable indicators

- Veterinary Professionals Act and Regulations promulgated
- Registration of veterinary para-professionals on Register

MANAGEMENT OF VETERINARY SERVICES - General competencies CC: III-5. Veterinary Statutory Body A. VSB authority					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Taka***				

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

B. VSB capacity

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. The VSB has no capacity to implement its functions and objectives.

2. The VSB has the functional capacity to implement its main objectives.

3. The VSB is an independent representative organisation with the functional capacity to implement all of its objectives.

4. The VSB has a transparent process of decision making and conforms to OIE standards.

5. The financial and institutional management of the VSB is submitted to external auditing.

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

Increase the capability of the VSB by increasing income, undertaking veterinary school accreditation, taking disciplinary action and delivering CE

4. Activities to implement (chronological)

Specific activities		• Extend Council stakeholder engagement to include representatives of veterinary para-professionals • Conduct regular meetings of Council and subcommittees • Maintain and regularly update registers of veterinarians and veterinary para-professionals • Publish outcomes of regular meetings of Council and sub-committees • Develop training standards for and conduct regular audits of veterinary universities and publish audit reports • Introduce requirement for payment of an annual retention fee as well as registration fees in order to finance Council activities • Develop protocols and implement disciplinary action for veterinarians or veterinary para-professions found guilty of professional misconduct or negligence • Implement a system of CE for all members
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with the Veterinary Association of Bangladesh on options for registering veterinary para-professionals
	IV.1, 2, 3. Legislation	Ensure legislative basis for sanctions relating to professional misconduct or professional negligence
	I.3. Continuing Education	Make CE a requirement for ongoing registration
	III.1 Communication	Communicate to members and the public the obligations of veterinary professionals and veterinary para-professionals and the scope for disciplinary action
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

- Minutes of Council meetings
- Evidence of disciplinary action
- Veterinary University Audit reports
- Annual Report of the Council

MANAGEMENT OF VETERINARY SERVICES - General competencies CC: III-5. Veterinary Statutory Body A. VSB authority					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Taka***				

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

1. Definition of this PVS Critical Competency

The capability of the VS and producers and interested parties to formulate and implement joint programmes in regard to animal health and food safety.

This competency includes collaboration with relevant authorities, including other ministries and Competent Authorities, national agencies and decentralised institutions that share authority or have mutual interest in relevant areas.

2. Desired Level of Advancement (DLA)

1. Producers and other interested parties only comply and do not actively participate in programmes.

2. Producers and other interested parties are informed of programmes and assist the VS to deliver the programmes in the field.

3. Producers and other interested parties are trained to participate in programmes and advise of needed improvements, and participate in early detection of diseases.

4. Representatives of producers and other interested parties negotiate with the VS on the organisation and delivery of programmes.

5. Producers and other interested parties are formally organised to participate in developing programmes in close collaboration with the VS.

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

Implement joint programmes with capable industry sectors

4. Activities to implement (chronological)

Specific activities		• Continue the current joint programme on AI where industry undertakes biosecurity awareness and communications with their members and the animal products sector covers costs of labour, disinfectants, equipment, etc. • Work with the World Poultry Science Association, Bangladesh branch, to jointly hold conferences and workshops centrally and at divisional levels on poultry health including AI and ND risks • Develop a joint programme with Bengal Meats on FMD compartmentalisation to access new export markets (e.g. Saudi Arabia) – see CC IV-8 • Liaise with existing animal welfare organisations to develop a joint programme on animal welfare compliance (after the new Animal Welfare Act has been promulgated) • Explore the feasibility of a joint programme with the dairy sector on activities such as livestock identification, brucellosis and/or FMD control
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with industries with the capability to develop joint programs
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Develop training with animal welfare organisations
	III.1 Communication	Provide extension for joint programmes with private sector partners
	I.11. Management of resources and operations	Requires active management
	III.3. Official representation	

5. Objectively verifiable indicators

- Evidence of consultation with private sector on joint programs (e.g. meeting minutes)
- Documented joint animal health or welfare programmes that specify roles and responsibilities between DLS and the private sector

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

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)	10	300.00		3,000	
Sampling collection equipment					
Sub-total Consumable resources				**3,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***3,000***	
Total in	***Taka***			***225,000***	

E. Critical Competencies for Management of Veterinary Services

Crosscutting issues

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

A. Professional competencies of veterinarians including OIE Day 1 competencies

1. Definition of this PVS Critical Competency

The capability of the VS to efficiently carry out their veterinary and technical functions; measured by the qualifications of their personnel in veterinary and technical positions.

2. Desired Level of Advancement (DLA)

1. The veterinarians' practices, knowledge and attitudes are of a variable standard that usually allow for elementary clinical and administrative activities of the VS.

2. The veterinarians' practices, knowledge and attitudes are of a uniform standard that usually allow for accurate and appropriate clinical and administrative activities of the VS.

3. The veterinarians' practices, knowledge and attitudes usually allow undertaking all professional/technical activities of the VS (e.g. epidemiological surveillance, early warning, public health, etc.).

4. The veterinarians' practices, knowledge and attitudes usually allow undertaking specialized activities as may be needed by the VS.

5. The veterinarians' practices, knowledge and attitudes are subject to regular updating, or international harmonisation, or evaluation.

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

Develop a standardised national curriculum for veterinary training with reference to OIE standards

4. Activities to implement (chronological)

Specific activities		• Harmonise and standardise veterinary education at all veterinary schools via the VSB veterinary education strategy document • Review all veterinary schools curricula based on the OIE Day 1 competencies and standardise curricula • Consider assisting the highee performing veterinary school(s) to develop an OIE educational twinning programme through identification and exploration with a developed country veterinary school and OIE
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with veterinary schools and international partners including OIE Coordination with VSB on standards
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	Official representation at international meetings will help facilitate support and possible twinning

5. Objectively verifiable indicators

- Standardised curricula available
- Records of consultations with international partners

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

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)	10	300.00		3,000	
Sampling collection equipment					
Sub-total Consumable resources				**3,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***3,000***	
Total in	***Taka***			***225,000***	

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

B. Competencies of veterinary para-professionals

1. Definition of this PVS Critical Competency

The capability of the VS to efficiently carry out their veterinary and technical functions; measured by the qualifications of their personnel in veterinary and technical positions.

2. Desired Level of Advancement (DLA)

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

2. The training of veterinary para-professionals is of a very variable standard and allows the development of only basic competencies.

3. The training of veterinary para-professionals is of a uniform standard that allows the development of only basic specific competencies.

4. The training of veterinary para-professionals is of a uniform standard that allows the development of some advanced competencies (e.g. meat inspection).

5. The training of veterinary para-professionals is of a uniform standard and is subject to regular evaluation and/or updating.

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

Review and standardise veterinary para-professional training in Bangladesh.

4. Activities to implement (chronological)

Specific activities		• Develop and implement registration with the Bangladesh Veterinary Council for veterinary para-professionals as per OIE standards • Identify types and classifications of veterinary para-professionals required against specific roles = meat inspectors, border inspectors, animal health workers, etc. • Review the curricula and develop standards for veterinary para-professionals training at the three existing DLS schools, in partnership with the Technical Education Board • Complete the supported 'make up' course training for existing staff • Review the Animal Science DLS employment category and update against functions
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with the VSB, training institutes and the Technical Education Board
	IV.1, 2, 3. Legislation	Confirm that new legislation supports registration of veterinary para-professionals
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	
	III.3. Official representation	

5. Objectively verifiable indicators

- VPPs are registrable in Bangladesh.
- Documentary evidence of standardised curricula and delivery, including physical inspections.

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

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Initial training (nb of students / year)					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Taka***				

MVS – I-3. Continuing education (CE)

1. Definition of this PVS Critical Competency

The capability of the VS to maintain and improve the competence of their personnel in terms of relevant information and understanding; measured in terms of the implementation of a relevant training programme.

2. Desired Level of Advancement (DLA)

1. The VS have no access to continuing veterinary, professional or technical CE.

2. The VS have access to CE (internal and/or external programmes) on an irregular basis but it does not take into account needs, or new information or understanding.

3. The VS have access to CE that is reviewed annually and updated as necessary, but it is implemented only for some categories of the relevant personnel.

4. The VS have access to CE that is reviewed annually and updated as necessary, and it is implemented for all categories of the relevant personnel.

5. The VS have up-to-date CE that is implemented for all relevant personnel and is submitted to periodic evaluation of effectiveness.

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

Ongoing CE programme developed and being delivered

4. Tasks to implement (chronological)

Specific tasks		• Develop an ongoing budgeted CE and training plan for all DLS staff, based on needs; reduce the reliance on and/or direct training provided by ad hoc externally driven projects • Central and divisional levels should undertake regular training of field staff in regulatory and service functions such as disease investigation, vaccination, meat inspection and border inspection • The laboratory staff that currently collect diagnostic samples should be replaced by field staff and be trained by them –an ongoing programme should be established • Introduce CE requirements as part of ongoing veterinary registration by the Veterinary Statutory Body • Introduce a merit based scholarship programme to support higher education (Masters and PhD) for high potential staff
Tasks linked to cross-cutting competencies	*III.2 Consultation*	Consult with staff on their training needs Consult with international experts on defined training needs and seek their support
	IV.1, 2, 3. Legislation	Undertake training on relevant legislation/regulations
	I.3. Continuing Education	
	III.1 Communication	Communicate the availability of training to staff
	I.11. Management of resources and operations	Develop a documented continuing education programme with budget
	III.3. Official representation	

5. Objectively verifiable indicators

- Documented DLS continuing education plan
- Evidence of training taking place (records of staff participation, training course agendas, budgets etc.)

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

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment					
Sub-total Consumable resources					
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**				
Total in	***Taka***				

Total of continuing education programmes costed elsewhere	**56,100**	**48**	**2,666,620**	

MVS – I-11. Management of resources and operations

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. The VS do not have adequate records or documented procedures to allow appropriate management of resources and operations.

2. The VS have adequate records and/or documented procedures, but do not use these for management, analysis, control or planning.

3. The VS have adequate records, documentation, and management systems and use these to a limited extent for the control of efficiency and effectiveness.

4. The VS regularly analyse records and documented procedures to improve efficiency and effectiveness.

5. The VS have fully effective management systems, which are regularly audited and permit a proactive continuous improvement of efficiency and effectiveness.

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

Improve allocation of resources via use of records, planning and procedures, and through continual monitoring and evaluation

4. Activities to implement (chronological)

Specific activities		• As part of a whole of DLS programme review assess record keeping, analysis, review and reporting of programmes and activities • Revise/develop adequate records, procedures and management systems for priority work areas of the VS • Develop comprehensive databases for human and physical resources management e.g. staff positions and training, inventories, maintenance records, etc. • Develop consolidated financial management systems with reference to government policies and systems • Develop strategic plans, operational procedures and work plans for priority programmes such as for disease surveillance, disease control, and food safety • Develop an animal health information database – see CCII-5A • Implement a management training programme • Develop monitoring and evaluation activities for the implementation of all programmes
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with staff on the development of records, procedures and systems
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Train staff in the use of new systems
	III.1 Communication	
	I.11. Management of resources and operations	Core management activity
	III.3. Official representation	

5. Objectively verifiable indicators

- Documented record keeping, databases, plans, procedures, and management systems have been developed and are being used
- Evidence of monitoring and evaluation and revision of activities accordingly.

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues CC: I-11. Management of resources and operations					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Information systems for staff, physical resources	2	50,000	5	20,000	
Financial management system	1	10,000	5	2,000	
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments				**22,000**	
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)	2,855.0	48		135,708	
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure				**135,708**	
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication *Consultation (number of 1 day meetings)* *Sampling collection equipment*	10	300.00		3,000	
Sub-total Consumable resources				**3,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***160,708***	
Total in	***Taka***			***12,053,075***	

MVS – III-1. Communication

1. Definition of this PVS Critical Competency

The capability of the VS to keep interested parties informed, in a transparent, effective and timely manner, of VS activities and programmes, and of developments in animal health and food safety.

This competency includes collaboration with relevant authorities, including other ministries and Competent Authorities, national agencies and decentralised institutions that share authority or have mutual interest in relevant areas.

2. Desired Level of Advancement (DLA)

1. The VS have no mechanism in place to inform interested parties of VS activities and programmes.

2. The VS have informal communication mechanisms.

3. The VS maintain an official contact point for communications but it is not always up-to-date in providing information.

4. The VS contact point for communications provides up-to-date information, accessible via the Internet and other appropriate channels, on activities and programmes.

5. The VS have a well-developed communication plan, and actively and regularly circulate information to interested parties.

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

Appoint a communications contact point and provide regular communications with stakeholders

4. Activities to implement (chronological)

Specific activities		• Appoint an official communications contact point within DLS to work closely with the Communications Unit of the MoFL on VS communications • Review target audience and develop a regular VS newsletter (electronic and/or hardcopy) to communicate information on programmes, activities and disease status to stakeholders • Develop a media communications strategy (newspapers, TV/radio etc.) with budget to more effectively communicate with stakeholders and the public on priority issues such as disease awareness/reporting and disease control/vaccination campaigns. • Regularly update the DLS website • Consider developing a social media presence (e.g. Facebook site)
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult closely with the Communications Unit within the Ministry
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	Needs a specific resource to manage this programme
	III.3. Official representation	

5. Objectively verifiable indicators

- Appointed person with job description
- Newsletters and media material available
- Website

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues CC: III-1. Communication					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
General communication	2	5,000.00		10,000	
Consultation (number of 1 day meetings)					
Sampling collection equipment					
Sub-total Consumable resources				**10,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***10,000***	
Total in	***Taka***			***750,000***	

Total of communications programmes costed elsewhere	**477,100**

MVS – III-2. Consultation with stakeholders

1. Definition of this PVS Critical Competency

The capability of the VS to consult effectively with interested parties *on VS activities and programmes, and on developments in animal health and food safety.*

This competency includes collaboration with relevant authorities, including other ministries and Competent Authorities, national agencies and decentralised institutions that share authority or have mutual interest in relevant areas.

2. Desired Level of Advancement (DLA)

1. The VS have no mechanisms for consultation with interested parties.

2. The VS maintain informal channels of consultation with interested parties.

3. The VS maintain a formal consultation mechanism with interested parties.

4. The VS regularly hold workshops and meetings with interested parties.

5. The VS actively consult with and solicit feedback from interested parties regarding proposed and current activities and programmes, developments in animal health and food safety, interventions at the OIE (Codex Alimentarius Commission and WTO SPS Committee where applicable), and ways to improve their activities.

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

Develop formal consultation mechanisms with other key ministries, the poultry and export beef industries and other stakeholders

4. Activities to implement (chronological)

Specific activities		• Formalise the ad hoc consultation arrangements that currently exist with other ministries, the poultry, export beef and feed industries by creating consultative committees that meet regularly, work to an agenda, and produce minutes cleared by all parties • Formalise consultation arrangements with the export beef industry via a joint task force to develop new markets via FMD compartmentalisation. • Consider developing similar joint committees with other industries (e.g. dairy) as their capacity and representation matures. • Assist smallholders (goats, cattle, small poultry) to develop some organised representation to bring their views and inputs on policies and programmes that will affect them (e.g. national PPR disease control programme) • Review the purpose, requirements and implementation for farm registration
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with ministries and industry stakeholders
	IV.1, 2, 3. Legislation	Consultation is critical in the preparation of and compliance with legislation
	I.3. Continuing Education	
	III.1 Communication	Communicate the need for wide consultation
	I.11. Management of resources and operations	Resource and support regular joint cross government and industry-government consultative meetings.
	III.3. Official representation	

5. Objectively verifiable indicators

- Documented evidence (agendas, minutes) of formal meetings held regularly with industry.

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

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year	12	1,500		18,000	
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment					
Sub-total Consumable resources				**18,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***18,000***	
Total in	***Taka***			***1,350,000***	

Total for official representations costed elsewhere	**2**	**1,500**		**3,000**

MVS – III-3. Official representation

1. Definition of this PVS Critical Competency

The capability of the VS to regularly and actively participate in, coordinate and provide follow up on relevant meetings of regional and international organisations including the OIE (and Codex Alimentarius Commission and WTO SPS Committee where applicable).

2. Desired Level of Advancement (DLA)

1. The VS do not participate in or follow up on relevant meetings of regional or international organisations.

2. The VS sporadically participate in relevant meetings and/or make a limited contribution.

3. The VS actively participate[8] in the majority of relevant meetings.

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

5. The VS consult with stakeholders to ensure that strategic issues are identified, to provide leadership and to ensure coordination among national delegations as part of their participation in relevant meetings.

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

Attend relevant international meetings and enhance levels of preparation, participation and reporting back

4. Activities to implement (chronological)

Specific activities		• Maintain/increase current levels of attendance at relevant international meetings (estimated at six meetings per year for CVO and six meetings per year for other senior staff) • Undertake better preparation for international meetings by holding prior discussions with staff/stakeholders to discuss; the agenda, positions to take on issues/standards, and what Bangladesh wants to achieve from the meeting • Formally report back on all international meetings not only to supervisors/MoFL, but to all relevant staff • Advocate for additional budget so one additional person, to the CVO, can attend the OIE World Assembly and provide support for more active participation.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with relevant stakeholders prior to international meetings and report back on outcomes
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	Communicate findings from international meetings to stakeholders including the private sector
	I.11. Management of resources and operations	Seek support for one additional staff member to accompany the CVO to the OIE World Assembly
	III.3. Official representation	

5. Objectively verifiable indicators

- List of meetings attended
- Documented evidence of preparations for international meetings (minutes of meeting, email seeking comments on agenda or issues etc.)
- Documented evidence of reporting back outcomes of international meetings to seniors and staff

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

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues CC: III-3. Official representation					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year	12	1,500		18,000	
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment					
Sub-total Consumable resources				**18,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***18,000***	
Total in	***Taka***			***1,350,000***	

Total for official representations costed elsewhere	**2**	**1,500**	**3,000**	

MVS – IV-1. Preparation of legislation and regulations

1. Definition of this PVS Critical Competency

The authority and capability of the VS to actively participate in the preparation of national legislation and regulations in domains that are under their mandate, in order to guarantee its quality with respect to principles of legal drafting and legal issues (internal quality) and its accessibility, acceptability, and technical, social and economical applicability (external quality).

This competency includes collaboration with relevant authorities, including other ministries and Competent Authorities, national agencies and decentralised institutions that share authority or have mutual interest in relevant areas.

2. Desired Level of Advancement (DLA)

1. The VS have neither the authority nor the capability to participate in the preparation of national legislation and regulations, which result in legislation that is lacking or is outdated or of poor quality in most fields of VS activity.

2. The VS have the authority and the capability to participate in the preparation of national legislation and regulations and can largely ensure their internal quality, but the legislation and regulations are often lacking in external quality.

3. The VS have the authority and the capability to participate in the preparation of national legislation and regulations with adequate internal and external quality in some fields of activity, but lack formal methodology to develop adequate national legislation and regulations regularly in all domains.

4. The VS have the authority and the capability to participate in the preparation of national legislation and regulations with a relevant formal methodology to ensure adequate internal and external quality, involving participation of interested parties in most fields of activity.

5. The VS regularly evaluate and update their legislation and regulations to maintain relevance to evolving national and international contexts.

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

Clearly document a procedure and protocol for the development of legislation which brings together the VS and legal experts and includes adequate stakeholder consultation

4. Activities to implement (chronological)

Specific activities		• DLS to establish a permanent Veterinary Legislation Working Group to include a lawyer with legal drafting experience to take forward process of review and revision of existing and development of new legislation in accordance with OIE and other international standards • DLS to enter into dialogue with MoH, Ministry of Food and Ministry of Local Government to define respective roles and responsibilities for regulation of food safety and import, manufacture, distribution, sale and use of veterinary medicines and biologicals • Members of VLWG and senior managers of DLS become familiar with Article 3.4 and other OIE Terrestrial Animal Health Code standards & guidelines relevant to veterinary legislation • VLWG to formalise a regular process for review of existing and development of new legislation that brings veterinarians and lawyers together early in the drafting and involves stakeholders (government inter-sectoral and private sector representatives of commercial livestock industry, especially poultry & beef and veterinary medicine manufacturers/importers, animal product processors, including veterinary para-professionals) • VLWG to include specialised expertise in animal health, veterinary public health, welfare, etc. • Establish formal process of measuring impacts of new legislation • Consider request for an OIE Veterinary Legislation identification Mission
Activities linked to cross-cutting competencies	*III.2 Consultation*	Inter-ministerial consultations with MoH, Ministry of Food Ministry of Commerce and Ministry of Local Government
	IV.1, 2, 3. Legislation	Food Safety Act and legislation empowering local authorities to regulate food safety at municipal / local authority abattoirs
	I.3. Continuing Education	
	III.1 Communication	Communicate with staff and stakeholders on legislation, its development and changes – seek feedback
	I.11.Management of resources and operations	Review and revision of legislation requires resources
	III.3. Official representation	

5. Objectively verifiable indicators

- Minutes of consultative meetings with MoH/Minstry of Local Government/etc.
- Amendments to existing veterinary legislation ensuring compliance with OIE and other international standards
- Promulgation of new legislation (Acts and Regulations)

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues CC: IV-1. Preparation of legislation and regulations					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)	150.0	80			12,000
International expertise (weeks/5 years)	10.0	9,469			94,690
Special funds (/ 5 years) for …					
Sub-total non material expenditure					**106,690**
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication *Consultation (number of 1 day meetings)* *Sampling collection equipment*	10	300.00		3,000	
Sub-total Consumable resources				**3,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***3,000***	***106,690***
Total in	***Taka***			***225,000***	***8,001,750***

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

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. The VS have no or very limited programmes or activities to ensure compliance with relevant legislation and regulations.

2. The VS implement a programme or activities comprising inspection and verification of compliance with legislation and regulations and recording instances of non-compliance, but generally cannot or do not take further action in most relevant fields of activity.

3. Veterinary legislation is generally implemented. As required, the VS have a power to take legal action / initiate prosecution in instance of non-compliance in most relevant fields of activity.

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

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

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

Improve levels of compliance with legislation in prioritised areas of the VS regulatory services

4. Activities to implement (chronological)

Specific activities		• Undertake a functional analysis of the VS and develop a clear chain of command for each area of regulatory activity at all levels of the VS from central to the upazila and union levels to ensure efficient and effective inspection and control of products of animal origin destined for human consumption, control of use of veterinary medicines, compliance with disease surveillance and disease control regulations, import/export of animal products and animal welfare • Adjust staff levels to ensure sufficient numbers of staff are available to perform inspection and control at: BIPs, slaughterhouses/milk processing facilities, animal welfare, veterinary medicines inspection/control, etc. • Provide appropriate training on regulatory standards for DLS officers, responsible for implementation and enforcement of veterinary legislation (Inspectors, certification officers, etc.) • Regulatory departments within DLS to develop information management systems for recording inspection and control actions taken – to monitor compliance with standards set in legislation • Communication with stakeholders to create awareness of regulatory standards in food processing industry and the prudent use of veterinary medicines and biologicals • DLS regulatory departments to form closer relationship with law enforcement agencies to ensure better compliance with rules and regulations
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with MoH, Ministry of Local Government, Ministry of Food and stakeholders in public and private sectors stakeholders on compliance and how to achieve it
	IV.1, 2, 3. Legislation	Disease of Animals Act, Animal Slaughter and Quality of Meat Control Act, Drug Control Act, Bangladesh animal and animal product Quarantine Act and respective Regulations
	I.3. Continuing Education	All inspectorate personnel to gradually upgrade knowledge and skills for correct implementation and enforcement of standards set in legislation
	III.1 Communication	Disseminate information widely (mass media) on food safety, animal health and other standards to ensure compliance with standards set in legislation
	I.11. Management of resources and operations	Monitoring and evaluation of compliance – corrective action as and when necessary
	III.3. Official representation	

5. Objectively verifiable indicators

- Training records
- Records of consultations
- Records of enforcement/compliance activities

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

Resource and cost lines	Required Number	Unit Cost	Years of amortisation	Annual cost	Exceptional cost
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year		1,500			
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication	6	10,000.00		60,000	
Consultation (number of 1 day meetings)					
Sampling collection equipment					
Sub-total Consumable resources				**60,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***60,000***	
Total in	***Taka***			***4,500,000***	

MVS – IV-3. International harmonisation

1. Definition of this PVS Critical Competency

The authority and capability of the VS to be active in the international harmonisation of regulations and sanitary measures and to ensure that the national legislation and regulations under their mandate take account of relevant international standards, as appropriate.

2. Desired Level of Advancement (DLA)

1. National legislation, regulations and sanitary measures under the mandate of the VS do not take account of international standards.

2. The VS are aware of gaps, inconsistencies or non-conformities in national legislation, regulations and sanitary measures as compared to international standards, but do not have the capability or authority to rectify the problems.

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

4. The VS are active in reviewing and commenting on the draft standards of relevant intergovernmental organisations.

5. The VS actively and regularly participate at the international level in the formulation, negotiation and adoption of international standards[9], and use the standards to harmonise national legislation, regulations and sanitary measures.

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

Veterinary legislation is regularly updated in accordance with international standards

4. Activities to implement (chronological)

Specific activities		• Conduct central/divisional level workshops to create a good understanding and awareness of OIE and other international standards, especially in areas of disease surveillance, food safety, control of veterinary medicines, import/export of animals and animal products and animal welfare • Request OIE to undertake a Veterinary Legislation Identification Mission to assess compliance of existing legislation with OIE standards • Undertake a comprehensive review of veterinary legislation in collaboration with stakeholders (ministries, government/parastatal institutions, private sector organisations), Indian VS regulatory departments • Revise existing acts to reflect internal chain of command and incorporate provisions to ensure compliance with OIE and other international standards and where possible harmonise with neighbouring countries and trading partners • Develop appropriate regulations to implement and enforce primary legislation, adopting OIE and other international standards
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with MoH, Ministry of Local Government, Ministry of Commerce, producer associations, private slaughterhouse operators, private milk processing facility operators, etc.
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	Veterinary Legislation Working Group of senior VS line managers to work with lawyer experienced in legal drafting
	III.3. Official representation	Regular participation at OIE World Assembly and regional commission meetings

5. Objectively verifiable indicators

- Records of reviews of legislation against international standards
- Revised legislation

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

MANAGEMENT OF VETERINARY SERVICES - Cross-cutting issues CC: IV-3. International harmonisation					
Resource and cost lines	Required Number	Unit Cost	Years of amortisation	**Annual cost**	**Exceptional cost**
Material investments					
Buildings ()					
Maintenance cost per (sq m)		20	1		
Renovation cost per (sq m)		133	25		
Building cost per (sq m)		400	25		
Transport (Purchasing cost)					
Motorbikes		1,333	6		
Pick ups		60,000	10		
4x4 vehicles		93,333	10		
Staff office equipment set		2,000	5		
Other specific office equipment set					
Other specific equipment					
Sub-total Material investments					
Non material investments					
Training					
Specialised training (person-months/5 years)		1,620			
Continuing education (person-days/year)		48			
National expertise (days/5 years)		80			
International expertise (weeks/5 years)		9,469			
Special funds (/ 5 years) for …					
Sub-total non material expenditure					
Salaries					
Veterinarians		5,559			
Other university degree		2,917			
Veterinary para-professionals		1,612			
Support staff		1,363			
Sub-total Salaries					
Consumable resources					
Administration		20%			
Travel allowances					
staff within the country (person-days) / year		20			
drivers within the country (person-days) / year		12			
staff abroad (person-weeks) / year	2	1,500		3,000	
Transport costs					
Km or miles Motorbikes / year		0.03			
Km or miles cars / year		0.21			
Km or miles 4x4 vehicle / year		0.37			
Specific costs					
Targeted specific communication					
Consultation (number of 1 day meetings)					
Sampling collection equipment					
International meetings	2	1,000.00		2,000	
Sub-total Consumable resources				**5,000**	
Delegated activities					
Sub-total Delegated activities					
Total in	**USD**			***5,000***	
Total in	***Taka***			***375,000***	

F. Critical Competencies for Resources and Budget Analysis

Note: No cost cards are provided for these Critical Competencies as these costs are covered under specific activity Critical Competencies

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

A. Veterinary and other professionals (university qualifications)

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. The majority of veterinary and other professional positions are not occupied by appropriately qualified personnel.

2. The majority of veterinary and other professional positions are occupied by appropriately qualified personnel at central and state / provincial levels.

3. The majority of veterinary and other professional positions are occupied by appropriately qualified personnel at local (field) level.

4. There is a systematic approach to defining job descriptions and formal appointment procedures for veterinarians and other professionals.

5. There are effective management procedures for performance assessment of veterinarians and other professionals.

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

Recruit and train additional veterinarians to deliver effective and sustainable programmes and to manage veterinary para-professionals

4. Activities to implement (chronological)

Specific activities		• Advocate for the need for additional DLS veterinarians to senior staff of MoFL; develop a policy document indicating the imperative of providing an effective field network • Review the number of veterinarians available in Bangladesh and recruit as quickly as posisble • The structure and organisation of the DLS should be reviewed and additional vetrianrians recruited as required • Recruit additional veterinarians so that every upazila has three VOs, districts have three and divisions have four; central DLS should have approximately 35 veterinarians
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with the private sector on the needs of the DLS
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	The DG and CVO should lead the process of advocacy for additional veterinarians
	III.3. Official representation	

5. Objectively verifiable indicators

Advocacy documents available
- Reports of additional veterinarians recruited

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

B. Veterinary para-professionals and other technical personnel

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. The majority of technical positions are not occupied by personnel holding appropriate qualifications.

2. The majority of technical positions at central and state / provincial levels are occupied by personnel holding appropriate qualifications.

3. The majority of technical positions at local (field) level are occupied by personnel holding appropriate qualifications.

4. The majority of technical positions are effectively supervised on a regular basis.

5. There are effective management procedures for formal appointment and performance assessment of veterinary para-professionals.

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

Define the categories and roles of veterinary para-professionals and other technical staff
Provide veterinary supervision of veterinary para-professionals and other technical staff

4. Activities to implement (chronological)

Specific activities		• Identify roles and responsibilities for veterinary para-professionals and other technical staff – review and revise job descriptions and define qualifications/training for each role, e.g. meat inspection, animal welfare, surveillance/investigation, movement control, vaccination, etc. • Develop a training programme to provide the skills and qualifications required and to reassign staff as necessary • Review DLS organisation to assign veterinary staff for the supervision for all veterinary para-professionals and other technical staff • Develop formal reporting procedure of veterinary para-professional and other technical staff activities to the supervising veterinarians • Review the activities of veterinary para-professionals and other technical staff and revise/update as
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with veterinary para-professionals and other technical staff on roles
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Train veterinarians to supervise veterinary para-professional and other technical staff
	III.1 Communication	
	I.11. Management of resources and operations	Veterinary management time will be required to set up, manage and review the roles and activities of veterinary para-professionals and other technical staff
	III.3. Official representation	

5. Objectively verifiable indicators

Documented review of DLVS showing veterinary supervision
- Reports by veterinary para-professional and other technical staff
- Performance reviews available

I-7. Physical resources

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. The VS have no or unsuitable physical resources at almost all levels and maintenance of existing infrastructure is poor or non-existent.

2. The VS have suitable physical resources at national (central) level and at some regional levels, and maintenance and replacement of obsolete items occurs only occasionally.

3. The VS have suitable physical resources at national, regional and some local levels and maintenance and replacement of obsolete items occurs only occasionally.

4. The VS have suitable physical resources at all levels and these are regularly maintained.

5. The VS have suitable physical resources at all levels (national, sub-national and local levels) and these are regularly maintained and updated as more advanced and sophisticated items become available.

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

Upgrade facilities, laboratories, vehicles and equipment to meet the needs of an expanded VS

4. Activities to implement (chronological)

Specific activities		The management of physical resources is included under CC I.11 • Update the resources register to include schedules for maintenance and replacement • Review physical resources and develop a plan with priorities for maintenance/ upgrading/replacing as required • Identify capital budget for replacement/purchase of major items • Consider options for alternative funding options including increasing user support such as industry funding initiatives • Carry out upgrading plan recognising the funding available
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with private sector on opportunities for their support
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Staff training on resources/inventory management including maintenance
	III.1 Communication	
	I.11. Management of resources and operations	Management of the purchase, maintenance and replacement of resources is required
	III.3. Official representation	

5. Objectively verifiable indicators

List of physical resources
Schedules for maintenance and replacement with priorities
Records of consultations with private sector

I-8. Operational funding

1. Definition of this PVS Critical Competency

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

2. Desired Level of Advancement (DLA)

1. Funding for the VS is neither stable nor clearly defined but depends on resources allocated irregularly.

2. Funding for the VS is clearly defined and regular, but is inadequate for their required base operations (i.e. disease surveillance, early detection and rapid response and veterinary public health)

3. Funding for the VS is clearly defined and regular, and is adequate for their base operations, but there is no provision for new or expanded operations.

4. Funding for new or expanded operations is on a case-by-case basis, not always based on risk analysis and/or cost benefit analysis.

5. Funding for all aspects of VS activities is adequate; all funding is provided under full transparency and allows for full technical independence, based on risk analysis and/or cost benefit analysis.

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

To improve budget advocacy and to develop a programme of industry levies and increasing 'user pays'

4. Activities to implement (chronological)

Specific activities		• Develop staff skills in risk analysis and cost-benefit analysis • Develop documented disease surveillance and control, food safety and animal welfare programmes, with 'Key Performance Indicators' of their proposed outcomes, and rigorous operational plans for all DLS activities with costs and benefits • Identify 'cost centres' where 'levies' might be adopted/increased, such as in vaccination programmes, export certification, etc.
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with the users of the VS of the need for support a 'user pays' approach
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	Skills in risk analysis and cost-benefit analysis required to support budget development
	III.1 Communication	Communication with producers and other stakeholder to inform them of increasing 'user pays'
	I.11. Management of resources and operations	Develop a multi-year programme of DLS activities with an indicative budget
	III.3. Official representation	

5. Objectively verifiable indicators

- Accounting provide detailed records of costs and available budget by 'cost centre'
- Record of Treasury approval for levies to be imposed
- Records of levies collected and user pays

I-9. Emergency funding

1. Definition of this PVS Critical Competency

The capability of the VS to access extraordinary financial resources in order to respond to emergency situations or emerging issues; measured by the ease of which contingency and compensatory funding (i.e. arrangements for compensation of producers in emergency situations) can be made available when required.

2. Desired Level of Advancement (DLA)

1. No funding arrangements exist and there is no provision for emergency financial resources.

2. Funding arrangements with limited resources have been established, but these are inadequate for expected emergency situations (including emerging issues).

3. Funding arrangements with limited resources have been established; additional resources for emergencies may be approved but approval is through a political process.

4. Funding arrangements with adequate resources have been established, but in an emergency situation, their operation must be agreed through a non-political process on a case-by-case basis.

5. Funding arrangements with adequate resources have been established and their rules of operation documented and agreed with interested parties.

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

Document procedures with timelines for the release of emergency fund

4. Activities to implement (chronological)

Specific activities		• Review arrangements for the early release of funds to manage an emergency event and how this will impact on ongoing programmes; establish top-up procedures if necessary • Develop clear understanding of the criteria required to release emergency funds • Develop clear documentation of the procedure for the release of emergency funds and the process to access additional funds. This documentation should specify the information required to release funding at each stage and the likely timing of funds being released. • Develop pre-prepared templates for accessing emergency funding • Develop contingency plans on likely scenarios and the likely costs for control including operational costs and the payment of compensation • Run a desk top simulation exercise to understand better the process and timing of funds release
Activities linked to cross-cutting competencies	*III.2 Consultation*	Consult with other government departments to develop contingency funding mechanisms
	IV.1, 2, 3. Legislation	Review legislation and advocate for changes if necessary
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	Management need to develop clear protocols for the release of emergency funding and to test the process of funds release
	III.3. Official representation	

5. Objectively verifiable indicators

Documented process of funds release with information required and an indicative timeline
- Documentation of desk top simulation exercise

I-10. Capital investment

1. Definition of this PVS Critical Competency

The capability of the VS to access funding for basic and additional investments (material and non material) that lead to a sustained improvement in the VS operational infrastructure.

2. Desired Level of Advancement (DLA)

1. There is no capability to establish, maintain or improve the operational infrastructure of the VS.

2. The VS occasionally develops proposals and secures funding for the establishment, maintenance or improvement of operational infrastructure but this is normally through extraordinary allocations.

3. The VS regularly secures funding for maintenance and improvements of operational infrastructure, through allocations from the national budget or from other sources, but there are constraints on the use of these allocations.

4. The VS routinely secures adequate funding for the necessary maintenance and improvement in operational infrastructure.

5. The VS systematically secures adequate funding for the necessary improvements in operational infrastructure, including with participation from interested parties as required.

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

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

4. Activities to implement (chronological)

Specific activities		• Develop a five year investment plan
		  - As part of the management of physical resources (CC I.7) develop a replacement programme for equipment and major renovations of facilities
		  - Develop a purchase plan with priorities
		  - Assess likely availability of funds and assign priorities
		• Advocate for a capital investment budget for DLS through MoFL
		• Explore options to obtain capital funding form the private sector and international donors
		• Review and revise the capital investment plan annually

Activities linked to cross-cutting competencies	*III.2 Consultation*	Work across MoFL to identify synergies in major capital investments with plants and aquaculture, also MoH
	IV.1, 2, 3. Legislation	
	I.3. Continuing Education	
	III.1 Communication	
	I.11. Management of resources and operations	A capital investment program requires good scoping and vision from the VS
	III.3. Official representation	

5. Objectively verifiable indicators

A documented capital investment programme
Records of discussions across MoFL

Appendix 2: Glossary of terms

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

Activities

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

Border post

means any airport, or any port, railway station or road check-point open to international trade of commodities, where import veterinary inspections can be performed.

Compartment

means an animal subpopulation contained in one or more establishments under a common biosecurity management system with a distinct health status with respect to a specific disease or specific diseases for which required surveillance, control and biosecurity measures have been applied for the purposes of international trade.

Competent Authority

means the Veterinary Authority or other Governmental Authority of a Member, having the responsibility and competence for ensuring or supervising the implementation of animal health and welfare measures, international veterinary certification and other standards and recommendations in the Terrestrial Code and the Aquatic Animal Health Code in the whole territory.

Critical competencies

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

Decentralisation

means transfer (authority) from central to local government

Deconcentration

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

Emerging disease

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

Equivalence of sanitary measures

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

Expected results

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

International veterinary certificate

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

Laboratory

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

National priorities

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

Notifiable disease

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

Objectively verifiable indicators

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

Official control programme

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

Official Veterinarian

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

Official veterinary control

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

OIE PVS indicators

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

PVS Gap Analysis

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

Risk analysis

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

Sanitary measure

means a measure, such as those described in various Chapters of the Terrestrial Code, destined to protect animal or human health or life within the territory of the OIE Member from risks arising from the entry, establishment and/or spread of a hazard.

Surveillance

means the systematic ongoing collection, collation, and analysis of information related to animal health and the timely dissemination of information so that action can be taken.

Task

means the detailed sub-component of an activity

Terrestrial Code

means the OIE Terrestrial Animal Health Code.

Veterinarian

means a person with appropriate education, registered or licensed by the relevant veterinary statutory body of a country to practice veterinary medicine/science in that country.

Veterinary Authority

means the Governmental Authority of an OIE Member, comprising veterinarians, other professionals and para-professionals, having the responsibility and competence for ensuring or supervising the implementation of animal health and welfare measures, international veterinary certification and other standards and recommendations in the Terrestrial Code in the whole territory.

Veterinary para-professional

means a person who, for the purposes of the Terrestrial Code, is authorised by the veterinary statutory body to carry out certain designated tasks (dependent upon the category of veterinary para-professional) in a territory, and delegated to them under the responsibility and direction of a veterinarian. The tasks for each category of veterinary para-professional should be defined by the veterinary statutory body depending on qualifications and training, and according to need.

Veterinary Services

means the governmental and non-governmental organisations that implement animal health and welfare measures and other standards and recommendations in the Terrestrial and Aquatic Codes in the territory. The Veterinary Services are under the overall control and direction of the Veterinary Authority. Private sector organisations,

veterinarians, veterinary paraprofessionals or aquatic animal health professionals are normally accredited or approved by the Veterinary Authority to deliver the delegated functions.

Veterinary statutory body

means an autonomous regulatory body for veterinarians and veterinary para-professionals.

VLU

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

Appendix 3: List of documents accessed during the PVS Gap Analysis mission

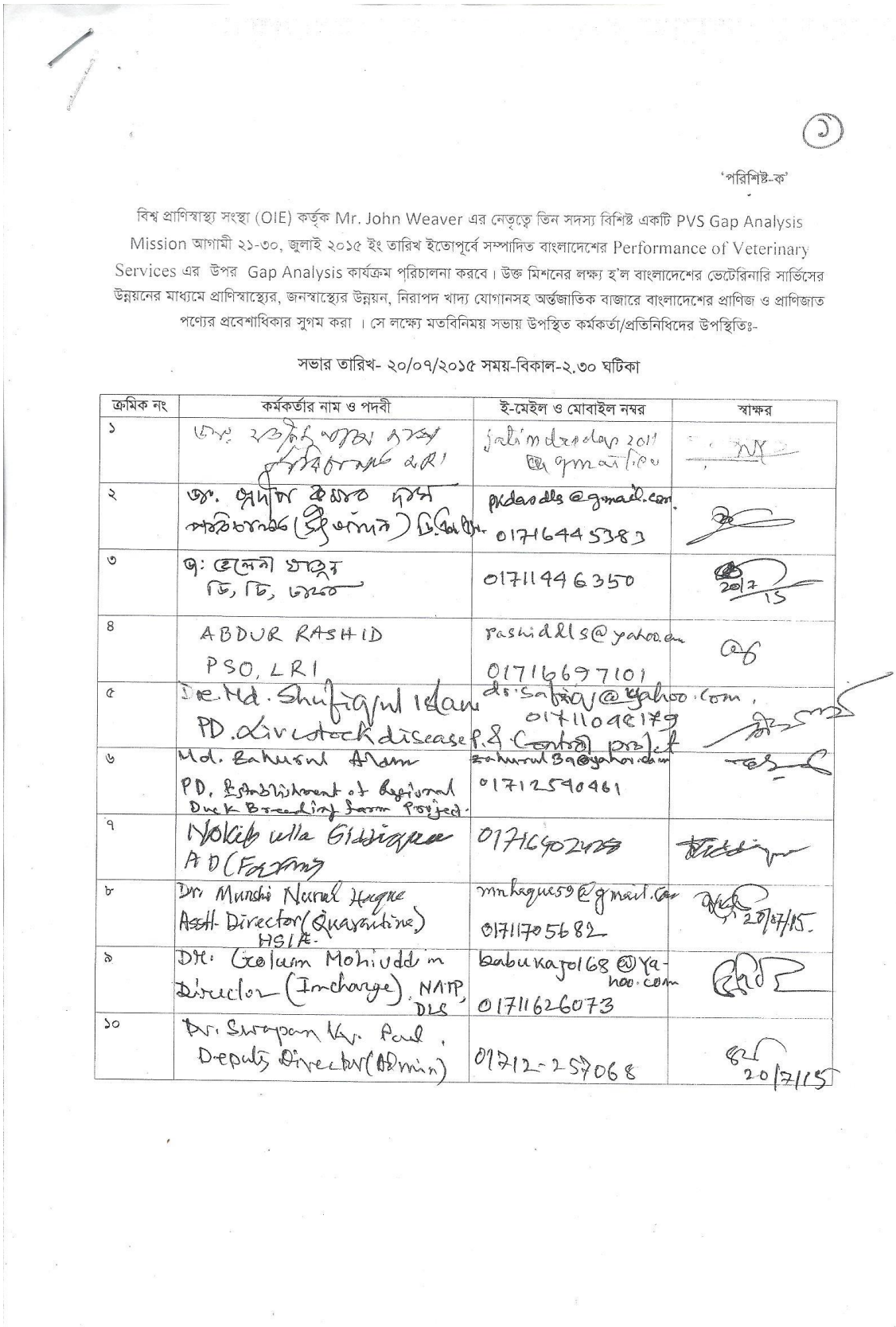
Note: very few documents were available

Ref	Title
	MISSION DOCUMENTS
	The Food Safety Act (2013)
	Animal Disease Act (2005) and Rules (2008)
	Animal Slaughter and Quality of Meat Control Act (2013)
	Quarantine Act (2005)
	Prevention of Cruelty to Animals Ordinance (1962)
	Veterinary Practitioner's Ordinance (1982)
	http://www.mofl.gov.bd/
	National Poultry Development Policy, 2008
	Bangladesh Veterinary Council – Education strategy

Appendix 4: Timetable of the mission

Day (D)	Purpose of the meeting	Participants	Venue
Monday pm 20 July	Definition of the national priorities and the levels of advancement	OIE Delegate and heads of technical departments (Also include head of customs services)	DLS
Tuesday am 21 July	Opening meeting	Minister(s), Secretary, Ministry officials, OIE Delegate, DLS, BLRI officials	MoFL
Tuesday pm 21 July	Technical meeting on Trade (border inspection, market access and relations with stakeholders)	OIE Delegate and heads of technical departments (Also include head of customs services)	DLS
Wednesday am 22 July	Technical meeting on Veterinary Public Health (inspection of veterinary products and residues)	Heads of relevant departments (Also include head of human pharmacy services)	DLS
Wednesday pm 22 July	Meeting on the organisation of central and decentralized Veterinary Services	Heads of relevant departments	DLS
Thursday am 26 July	Technical meeting on Animal Health, (disease control and emergency preparedness) Technical meeting on the veterinary services field network	Heads of relevant departments (representatives of veterinary practitioners & the veterinary statutory body)	DLS
Thursday pm 26 July	Technical meeting on Laboratories	Heads of relevant departments (Also include heads of the main teaching and higher education institutions involved)	DLS
Friday/ Saturday 24-25 July	Synthesis of findings by the team of experts	The experts	
Sunday 23 July	Meetings with resource persons from cross-cutting departments: finance, legislation, personnel management	Heads of relevant departments (Also include heads of departments responsible for the State budget, finance civil service, etc.)	DLS
Monday 27 July	Preliminary presentation of the proposed objectives and activities	OIE Delegate and heads of all technical departments	DLS
Tues/Wed 28-29 July	Collection of additional information & finalisation of the PVS Gap Analysis.	The experts	
Thursday 30 July	Closing meeting	Minister(s), OIE Delegate, heads of relevant departments	MoFL

Appendix 5: List of persons met during the mission



'পরিশিষ্ট-ক'

বিশ্ব প্রাণিস্বাস্থ্য সংস্থা (OIE) কর্তৃক Mr. John Weaver এর নেতৃত্বে তিন সদস্য বিশিষ্ট একটি PVS Gap Analysis Mission আগামী ২১-৩০, জুলাই ২০১৫ ইং তারিখ ইতোপূর্বে সম্পাদিত বাংলাদেশের Performance of Veterinary Services এর উপর Gap Analysis কার্যক্রম পরিচালনা করবে। উক্ত মিশনের লক্ষ্য হ'ল বাংলাদেশের ভেটেরিনারি সার্ভিসের উন্নয়নের মাধ্যমে প্রাণিস্বাস্থ্যের, জনস্বাস্থ্যের উন্নয়ন, নিরাপদ খাদ্য যোগানসহ অর্ন্তজাতিক বাজারে বাংলাদেশের প্রাণিজ ও প্রাণিজাত পণ্যের প্রবেশাধিকার সুগম করা । সে লক্ষ্যে মতবিনিময় সভায় উপস্থিত কর্মকর্তা/প্রতিনিধিদের উপস্থিতিঃ-

সভার তারিখ- ২০/০৭/২০১৫ সময়-বিকাল-২.৩০ ঘটিকা

ক্রমিক নং	কর্মকর্তার নাম ও পদবী	ই-মেইল ও মোবাইল নম্বর	স্বাক্ষর
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২			
৩		01711446350	
৪	ABDUR RASHID PSO, LRI	01716697101	
৫	Dr. Md. Shufiqul Islam PD. Livestock disease	01711094179	
৬	Md. Zahurul Alam PD. Establishment of Regional Duck Breeding Farm Project.	01712590461	
৭			
৮	Dr. Munshi Nurul Haque Asstt. Director (Quarantine) HSIA.	01711705682	20/07/15
৯	Dr. Golam Mohiuddin Director (Incharge) NAIP, DLS	01711626073	
১০	Dr. Swapan Kr. Paul Deputy Director (Admin)	01712-257068	20/7/15

PVS Gap Analysis Mission for Bangladesh 2015
Meeting on the organisation of central and decentralized Veterinary Services
Meeting Date: 28/07/15, Time: 10.00 AM, Venue: DLS Conf'ce Room.

SL. NO.	Officers Name & Designation	Phone & E-mail Address	Signature
11	Dr. Muhammad Haider Ali Senior scientific officer FMD Vaccine section	01711-223778 dr.haidervet@gmail.com	26/7/15
12	Dr. Md. Giasuddin Head, Anti. Health. Div BLRI, Savar	01711055597 mgias 01@yahoo.com	28.7.15
13	ABDUR RASHID PSO, DLS	01716697101 rashiddls@yahoo.com	
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