



## Competency-based Framework for VETERINARY OFFICERS

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**Department of Livestock**  
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## 1. Overview of Department

The Department of Livestock (DoL) was initially started as the Department of Animal Husbandry in the first five-year plan (1961-1966), with the establishment of few animal breeding infrastructures. In the subsequent plans, 28 Bhutanese Veterinary compounders/assistants were trained to provide effective veterinary services in the country. Since then, the government has institutionalized many commodity and service centers across the country, demanding more human resources to cater efficient and effective veterinary services. To realize this, the government in the subsequent development plans recruited Veterinary Officers (VOs) and Para-veterinary professionals by providing training opportunities from different institutes, both in-country and ex-countries. At present, the staff strength of DoL stands at 795 professionals (HRMD MoAF 2019), comprising of Specialists, Veterinary Officers, Livestock Production Officers, Para-veterinary professionals, Livestock Supervisors, and Extension Officers, working at different capacities in various livestock commodity centers, farms, regional offices, Dzongkhags and Gewogs.

The Department of Livestock is considered one of the most important primary sectors supporting poverty alleviation, economic growth, employment generation, climate smart management and utilization of natural resources; and social development. The goals and objectives of the Department are well aligned towards securing household food and nutrition security, improving rural livelihood and strives towards achieving self-sufficiency in livestock products.

Thus, the overall goal of the Department is to ***“achieve livestock product self-sufficiency for a prosperous and self-reliant society living in harmony with nature”***.

In order to achieve this goal, the following objectives are set:

To enhance food and nutrition security and rural livelihood through promotion of livestock farming.

To enhance effective and efficient delivery of livestock services

To generate appropriate technologies for enhancement of livestock production

To encourage youths and public sector investment in livestock enterprises

To promote sustainable management and utilization of Natural Resources and contribute to RNR sector growth

The Department’s goal, objectives and programs are broadly guided by the development philosophy of Gross National Happiness (GNH), and aligned towards strengthening its four pillars and corresponding nine domains. The Department embarks on a holistic approach to achieve its goal and objectives through effective coordination and consolidation of programs among field offices within the sector, central agencies, local government, and private firms.

## 1.1 Vision, Mission, Mandates & Core Values of Department

### Vision

Self-reliance in livestock products and enhancement of well-being through enhanced domestic production

#### Mission

To enhance livestock productivity through organized production, enterprise development and value chain management in a sustainable manner

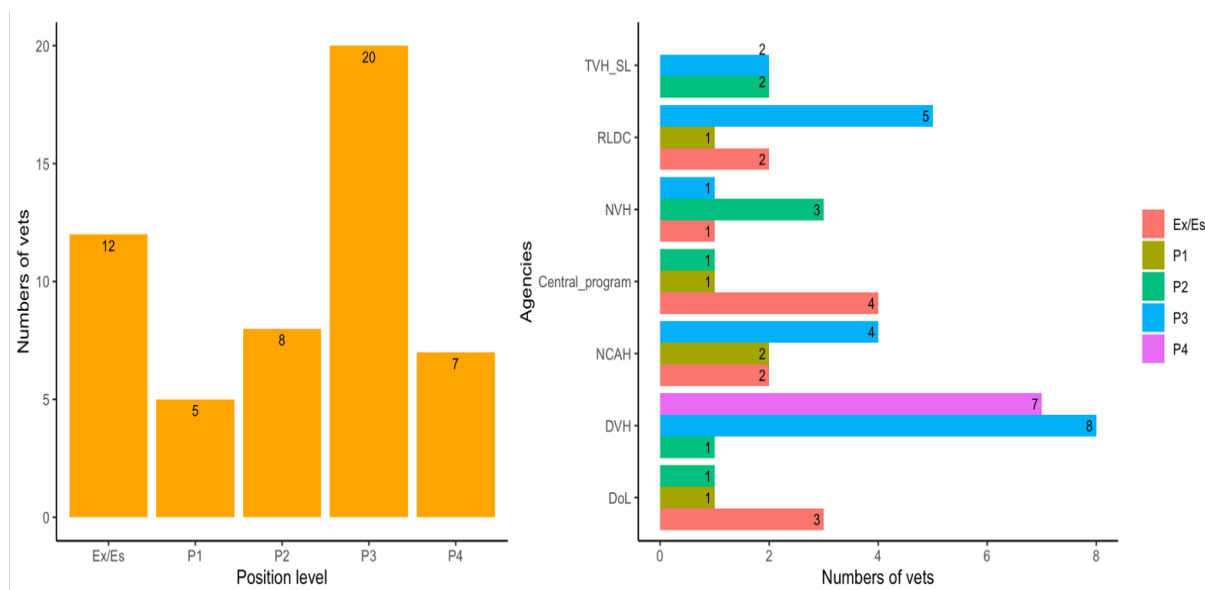
#### Mandates

- ★ Develop policies, legal frameworks, strategies and guidelines to ensure effective delivery of services, thereby enhancing livestock production.
- ★ Mobilize resources for research and development of livestock commodities.

### Core Values

- Ensure sustainable utilization and management of livestock resources including fishery.
- Build and enhance human resource capacity of all levels for efficient service delivery.
- Encourage youths and private sector involvement in livestock enterprise development.
- Plan, co-ordinate, monitor, and evaluate the implementation of livestock development programs.
- Liaise with national and international institutions in mobilizing funds and exchange of technologies.

## 2. Situational analysis



There are currently 52 Veterinary Officers under the Department of Livestock working at different position levels. Twelve veterinarians are in executive/specialist positions, 5 in P1 level, 8 in P2 level, 20 in P3 level and 7 in P4 level. Sixteen of the Veterinary Officers are currently placed in District Veterinary Hospitals, 8 in National Center for Animal Health, 8 in Regional Livestock Development Centers, 6 in the Central programs, 5 in National Veterinary Hospital, 5 in Department of Livestock, and 4 in Thromde Veterinary Hospital and Satellite Laboratories.

## 3. Background and Rationale of CBF

Competency-based framework (CBF) was initiated by the Royal Civil Service Commission (RCSC). With the directives from the RCSC; and subsequent to five-days cascading workshop on development of CBF for major occupational groups-Agriculture and Animal Health Services under the Department of Livestock, Competency-based framework for Veterinary Officers was developed.

The CBF for VOs is being developed as a part of a major transition from traditional veterinary practices to a more structured approach of capacity development based on the competency level of individuals, to realize and accomplish the overall objectives of the Department. The CBF was developed to further identify the skill needs of VOs, and provide continuous development opportunities to make them competent in delivering their responsibilities effectively and efficiently. Through CBF, the Department is hopeful to strengthen the competency level of VOs to fulfil its overarching objective in safeguarding animal health and welfare through effective delivery of veterinary services.

The CBF taskforce members consisted of officials from the Department of Livestock (HeadQuarter), the National Center for Animal Health and the National Veterinary Hospital. The CBF for VOs was developed, following a series of consultation meetings with field offices under the Department, viz. Dzongkhag Veterinary Hospitals, Regional Livestock Development

Centers and government farms . It was developed over the period of three months (December, 2020-March, 2021), involving consultations and information validations, through online surveys, inhouse meetings and field validations. The detailed work plan for the development of CBF for VOs is described in (annexure 1).

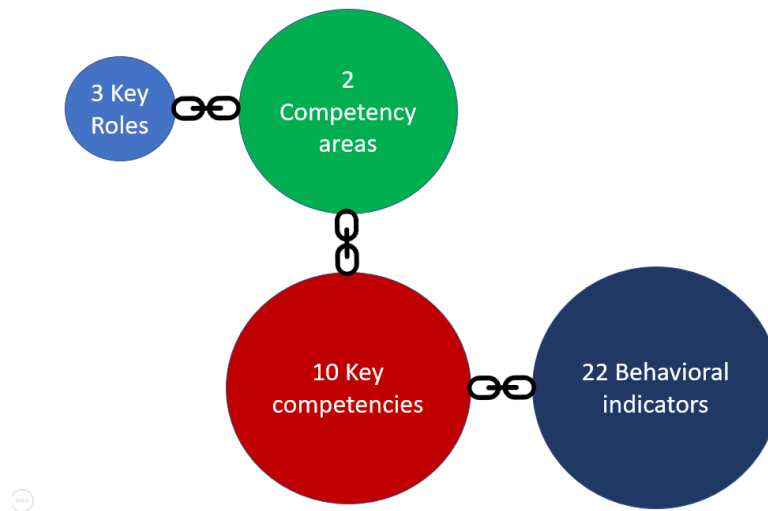


Figure 1: The main features of the Competency-based Framework for Veterinary Officers

#### 4. Expected Benefits of CBF for the Department

Some of the identified benefits of CBF to the Department are:

1. Delineate clear roles and responsibilities of Veterinary Officers
2. Identify critical performance gaps based on current responsibilities and develop human resource (HR) development plans to ensure cost-effective and continuous professional development
3. Ensure deployment of right person in the right job through individual career development
4. Ensure HR succession plans for effective overall organizational development

#### 5. CBF Development Processes

The entire consultation process to seek ideas and discussions on competencies of VOs were carried out through meetings, workshops, and bilateral conversations with relevant stakeholders, and validation of information was done through online surveys and meetings with officials from different offices under the Department. The outcomes of these meetings were communicated to RCSC officially, to further seek suggestions and recommendations. The submissions were made as per the agreed work plan.



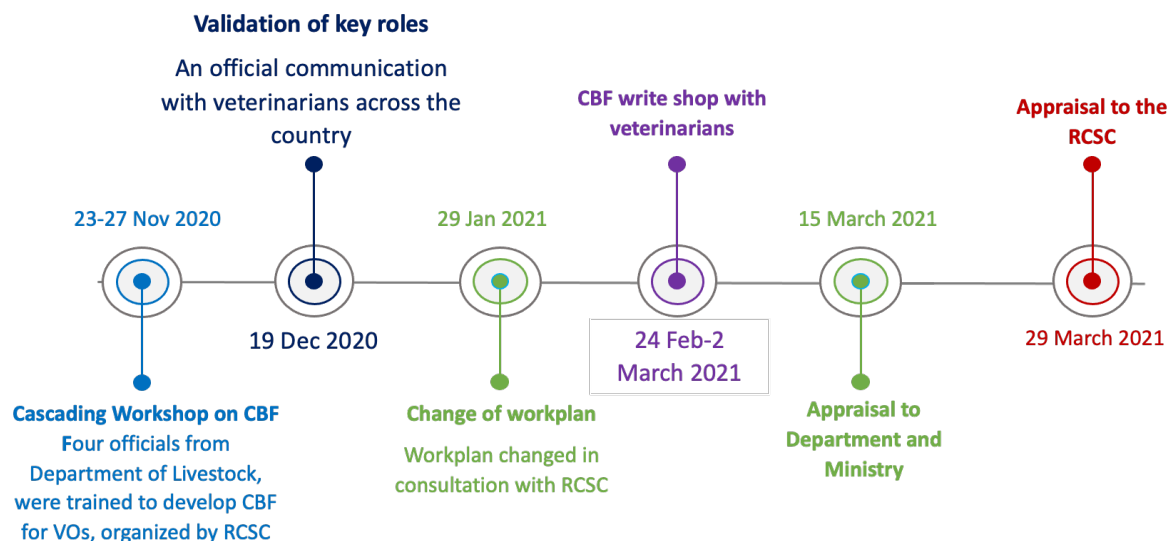


Figure 2: Different activities undertaken by DoL task-force to develop competency-based framework for Veterinary Officers

### 5.1 Identification of Key Roles

The key role is an organized set of behaviors that are crucial to achieve the current and future goals of the Department of Livestock. The key roles expected to be performed by the Veterinary Officers to achieve the agreed goals of the Department are: 1. Technical expert, 2. Strategic planner and 3. Manager (Figure 3).

### 5.2 Description of Role Profile

The role profile is the description of roles that Veterinary Officers are expected to demonstrate in achieving the outcomes of the Department of Livestock. It defines outcomes, accountabilities and competencies for an individual role. It concentrates on outcomes rather than duties and therefore provides better guidance than a job description on expectations. It does not constrain Veterinary Officers to carry out a prescribed set of tasks.



Figure 3: The three key roles identified for the Veterinary Officers

Table 1: Three key roles and role description of Veterinary Officers

Sl. No.	Key Role	Role Description
1	Technical expert	<ol style="list-style-type: none"> <li>1. Execute efficient veterinary (clinical, diagnostic and epidemiological) breeding and reproduction services.</li> <li>2. Devise and implement disease surveillance, prevention and control programs.</li> <li>3. Keep abreast with new knowledge and technology on veterinary and livestock development science.</li> <li>4. Render Animal health and breeding, research and extension services.</li> <li>5. Provide timely technical backstopping services.</li> <li>6. Support development and implementation of policies, strategies and plans for Animal health, breeding and production.</li> <li>7. Implement regulatory measures to ensure food safety, animal welfare and veterinary medicines.</li> </ol>
2	Strategic planner	<ol style="list-style-type: none"> <li>1. Define organization's mandates to align with overall development strategies of the Department.</li> <li>2. Formulate a comprehensive master plan to achieve the organization's goal.</li> <li>3. Collaborate and liaise with relevant agencies (national and international) to seek necessary support (funding/ technical) for implementation of planned activities.</li> <li>4. Develop livestock legislation and policies including the review of existing policies.</li> <li>5. Identify future skills/ specialization needs of the organization/agency and plan strategies for capacity development.</li> <li>6. Formulate disease prevention and control plans for animal diseases (transboundary animal diseases, zoonoses, emerging and re-emerging diseases).</li> </ol>
3	Manager	<ol style="list-style-type: none"> <li>1. Provide administrative and technical supervision for efficient operations/ functioning.</li> <li>2. Plan, facilitate and ensure effective implementation of health, breeding and reproduction services in the veterinary domain for better health and production.</li> <li>3. Ensure efficient resource mobilization and management.</li> <li>4. Manage animal health, breeding and reproduction information system, progress monitoring and reporting.</li> <li>5. Collaborate, coordinate and network with relevant agencies for effective service delivery.</li> <li>6. Collaborate and liaise with appropriate agencies to seek financial and technical support for effective execution of planned and emerging activities.</li> </ol>

### 5.3 Identification of Competency Areas

The competency area is the clustering of key competencies by related behavior and functions of each role. It comprises a set of Knowledge, Skills and Abilities (KSA) that result in essential behaviors expected from Veterinary Officers. Generally, the competency area is broadly divided as core competency, leadership competency and technical or functional competency. The framework has identified technical competency and leadership competency as two competency areas for Veterinary Officers. Leadership competency refers to the values, attitudes, and behaviors for effective leadership and management required to motivate and obtain superior outputs from subordinates. Technical competency refers to job-specific skills, knowledge and behaviors; and it is vertical, agency-driven, and based on the core functions and mandate of the organization.

Table 2: The competency areas for each key role

Role No.	Key Role	Competency Area
1	Technical expert	Technical competency
2	Strategic planner	Technical competency
3	Manager	Leadership competency

### 5.4 Identification of Key Competencies

The key competency is an observable behavior that indicates the presence of the particular competency. It includes skills, knowledge, abilities, personality, behavior, and attitude attributes required to drive outstanding performance. It contributes to individual exemplary performance that creates reasonable impact on organizational development. As presented in the table below, the framework has identified 10 key competencies for Veterinary Officers.

Table 3: Key roles with identified competency areas and the key competencies

Sl. No.	Key Role	Competency Area	Key Competencies
1	Technical expert	Technical competency	1.1.1 Subject matter specialization (SMS)
			1.1.2 Aptitude for training and skills enhancement
			1.1.3 Research and analytical skills
2	Strategic planner	Technical competency	2.1.1 Domain expert
			2.1.2 Visionary
			2.1.3 System thinking
			2.1.4 Aptitude for technology
3	Manager	Leadership competency	3.1.1 Strategic leadership
			3.1.2 Team building and empowerment
			3.1.3 Communication and problem-solving skills



Figure 4: Diagram showing the three key roles and 10 key competencies of Veterinary Officer

### 5.5 Identification of Behavioral indicators

Competencies must be both generally defined and specifically described in behavioral terms. A behavioral indicator is an observable behavior that indicates the presence of the particular competency. It describes the competencies based on various proficiency levels. It outlines a collection of desired and observable motives, traits and behaviors when executing or carrying out the assigned task. It can also be used as a tool to guide evaluations of employee performance. The framework has identified **22** behavioral indicators as provided in the table below for each key role and competency area.

Table 4: Behavioural indicators for each key role categorized by key competencies

Competency Area	Key Competency	Behavior Indicators
Key Role 1: Technical Expert		
1.1 Technical competency	1.1.1 Subject matter specialist	1.1.1.1 Demonstrate professional knowledge and skills in clinical practice to enhance animal health, production and welfare.
		1.1.1.2 Exhibits proficiency (knowledge and skills) in animal disease/disorder diagnosis to provide accurate and prompt veterinary response.

		1.1.1.3 Possesses epidemiological, One Health, Food safety, and Occupational safety knowledge and skills to safeguard animal and public health.
		1.1.1.4 Pursues advanced professional knowledge, skills and technologies to adopt and deliver effective and efficient animal health, breeding and reproduction services.
	1.1.2 Aptitude for training and skills enhancement	1.1.2.1 Recognizes current and future knowledge gaps of relevant stakeholders to formulate training and skills enhancement plans.
		1.1.2.2 Possesses capability to impart knowledge and skills for capacity development of veterinary service providers and livestock farmers/service end users.
	1.1.3 Research and analytical	1.1.3.1 Identifies knowledge and skill gaps in veterinary research areas and conducts research to generate information to improve animal health and welfare to ensure informed policy decisions.

### Key Role 2: Strategic Planner

2.1 Technical Competency	2.1.1 Domain expert	2.1.1.1 Possesses sound knowledge on veterinary legislation, regulations and associated legal instruments to develop related policies.
		2.1.1.2 Uses technical expertise to develop action plans.
	2.1.2 Visionary	2.1.2.1 Understands and integrates the holistic paradigm of Gross National Happiness (GNH) to plans and policies.
		2.1.2.2 Consistently and effectively plans for both long- and short-term to achieve defined objectives.
	2.1.3 Systems thinking	2.1.3.1 Organizes information and data to identify/explain major trends, problems, and causes; compares and combines information to identify underlying issues.

		2.1.3.2 Identifies, integrates, and evaluates critical relations and connections of people, processes and technologies of the organization.
	2.1.4 Aptitude for technology	2.1.4.1 Recognizes the need and integrates technology in strategic planning and implementation of animal disease prevention & control.
		2.1.4.2 Applies in-depth specialized knowledge, skills, and judgment by assessing and translating technologies into designing solutions.
Key Role 3: Manager		
3.1 Leadership Competency	3.1.1 Strategic leadership	3.1.1.1 Demonstrates growth mindset and institutes good feedback culture to promote personal and organizational development.
		3.1.1.2 Exhibits sound moral direction and promotes ethical and professional behavior in the organization.
		3.1.1.3 Ensures effective planning and utilization of resources for overall organizational development.
	3.1.2 Team building and empowerment	3.1.2.1 Inspires and empowers subordinates to facilitate team building.
		3.1.2.2 Provides pro-active support to sustain community-based veterinary initiatives.
	3.1.3 Communication and problem-solving skills	3.1.3.1 Effectively communicates to disseminate/exchange information and builds good networking/collaboration to foster organizational development.
3.1.3.2 Analyzes and anticipates potential problems to avoid consequences or mitigate undesirable impacts.		

### 5.6 Classification of Proficiency Levels

The proficiency level is categorized based on the level of expertise. It describes the levels of a competency required to perform a specific job successfully. There is a progression of proficiencies at each level. The proficiency level of Veterinary Officer is categorized into four levels as *i) Entry (P4) ii) Intermediate (P3) iii) Experienced (P2) and iv) Advanced (P1)*. The framework has identified 22 behavioral indicators across these four levels of proficiency.

The proficiency will enable individual officials to distinguish the type of competencies expected in their career path, which will give them an opportunity to enhance competency in achieving current as well future career goals. Further, the proficiency level will set a benchmark for recruitment and deployment. The proficiency levels of each key competency are as provided in (annexure 2).

### 5.7 Training Needs Analysis

The proficiency degree leveled for each behavior indicator was analyzed based on the identification of skills needed to meet the overall objective of the Department. The existing skills possessed by the VOs at different levels for a particular key role were evaluated based on the adequacy of performing the job responsibilities. Accordingly, gaps in skill levels were identified for all proficiency levels against each behavior indicator. The likely reasons for inadequacies were noted, and counter methods to address these issues through training needs were developed. In brief, a procedure described in figure 5 was applied to develop the training need for VOs. The detailed training needs analysis is described in (annexure 3).

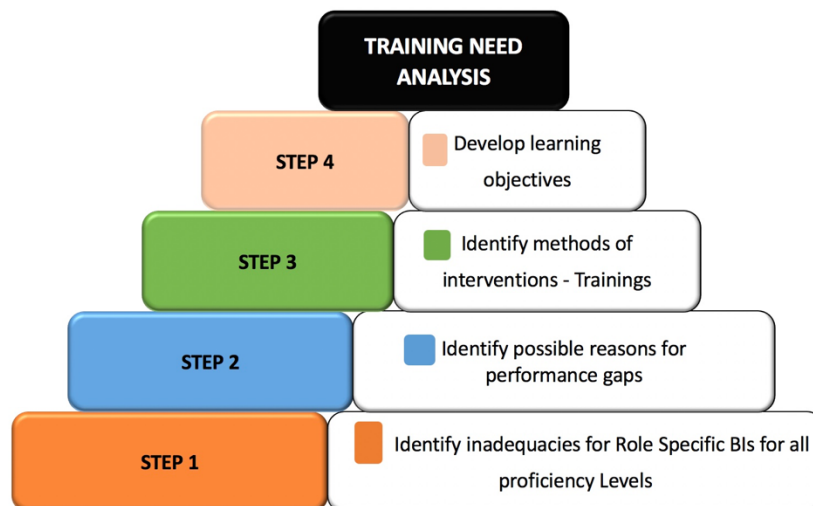


Figure 5: Process of conducting training need analysis

### 5.7.1 Identification of inadequacies for Role Specific BIs

The figure 6 shows the status of adequate and inadequate behavioural indicators that VOs in all proficiency levels possess currently for the three key roles.

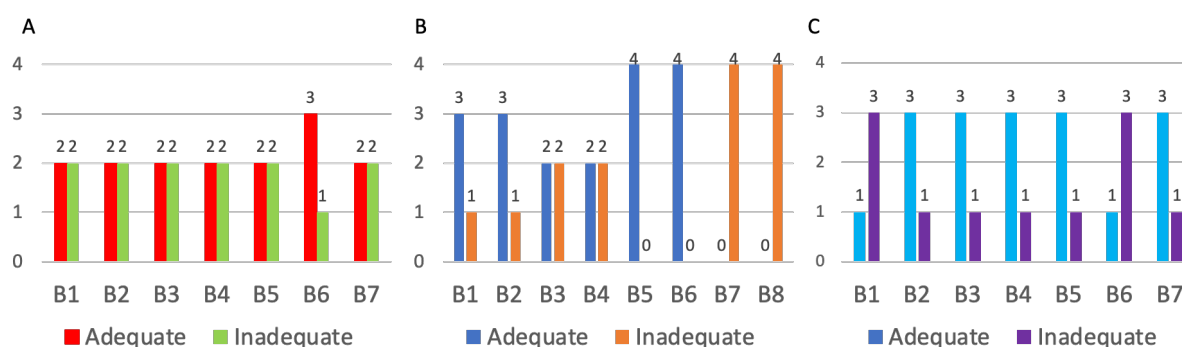


Figure 6: Behavioral inadequacies for different proficiency levels identified for each key role of veterinary officer, A. Technical expert B. Strategic planner C. Manager

### 5.7.2 Likely reasons for gaps in performance

The likely reason for performance gaps were most commonly cited as

1. Lack of orientation program
2. Inadequate practical experiences
3. No formal training, inadequate subject specialization
4. Rapidly evolving veterinary clinical practices (viz. knowledge, skills and technologies) and
5. Lack of advanced training on epidemiology and disease prevention and control aspects.

### 5.7.3 Developing Learning Objectives

The framework has highlighted the likely reasons for the gaps in performance of Veterinary Officers. In order to provide a capacity building program, the learning objectives/the expected learning outcomes are enlisted in the annexure 4. The officials at respective proficiency level will be able to achieve the objectives mentioned against each of the training as mentioned in (annexure 3).

### 5.7.4 Methods of Intervention

The CBF for VOs will be implemented based on the inadequate BIs under different roles across all proficiency levels, which needs interventions to enhance the performance and competency of the individual. Further, these inadequate BIs will be categorized into immediate, intermediate and long-term interventions based on the need of individuals and agencies as a whole. Three broad different methods of interventions were identified with specific training needs and competency development. The detailed specific training interventions are described in (annexure 4). Some of the common methods that are required for improving performance are:

**Classroom Training:** It is an instructor-led training, and is normally conducted in an institutional setting, and is designed to provide individuals with technical skills and information required to perform a specific job or group of jobs. Through TNA, 20 different types of training are identified based on the performance gap observed for three key roles, at different



competency areas across all proficiency levels. The training is proposed both in-country and ex-country depending on the type and capacity to conduct need-based training.

**Long Term Training:** It is a specialized training, and will be a long-term training that is designed to provide individuals with specialized skills in the respective commodities. Through TNA, 13 long term types of training are identified based on the current and future gaps of the individual and organization as a whole. The trainings are proposed in India/third countries depending on the availability of the master and PhD courses. Budget for LT has not been incorporated.

**OJT (On-job Training):** The training technique wherein the employees are given direct instructions to perform their jobs on the actual work floor. Under this intervention, different types of training on different livestock commodities are proposed focusing mainly on the new recruits at entry level of P4 as part of the orientation programme.

## 6. Implementation of Competency based Framework

For the inadequate BIs under different roles of VOs across all the proficiency levels, different methods of interventions were identified. Some of the common methods that are required for improving performance are classroom training, long term training, on the job training (OJT), job in training (JIT), orientation and induction, attachment programs, coaching and mentoring, self-learning, training workshops and seminars. The plan of implementing CBF and the proposed budget is presented in the table below. The specifics of the short-term training program such as training description, target group, training location, cost, and learning outcomes are provided in (annexure 4).

Table 6: CBF implementing plan based on the identified training needs (short-term and long term)

Key roles	Number of Trainings Identified	Mode	Budget
Technical expert	31 (Short term)	Induction/orientation/OJT Classroom training	63.86 M
	13 (long term)	Institutional training	
Strategic planner	8 (Short term)	Fellowships/short courses, seminars, webinars, institutional visits, exchange programs, conferences, workshops	3 M (cross-cutting with technical expert)
Manager	5 (Short term)	Classroom training Coaching Mentoring JIT	0 (RCSC will facilitate)
<b>Total</b>			<b>Nu. 66.86 M</b>

Table 7: Proposed Long-Term Training (Specialization)

Course Title	Priority			Number of Slots
	Immediate (2021-22)	Medium (2022-23)	Long-term (2024++)	
Master/PhD in Veterinary Science (Veterinary Medicine)				2
Master in Veterinary Science (Veterinary Gynaecology and Obstetrics)				2
Master in Veterinary Science (Veterinary Pathology)				2
Master in Veterinary Science (Veterinary Surgery)				1
Master/PhD in Veterinary Science (Veterinary Clinical Microbiology)				4
Master in Animal Health policy and economy				2
Master/PhD in Veterinary Science (Veterinary Public Health and Epidemiology)				6
Master/PhD in Veterinary Science (Animal Genetics and Breeding)				2
Master/PhD in Veterinary Science (Veterinary Parasitology)				2
Master in Veterinary Science (Veterinary Pharmacology and Toxicology)				2
Master in Veterinary Science (Animal Nutrition)				2
Master/PhD in Veterinary Science (Veterinary Biotechnology and Biomedical Science)				3
Master in Veterinary Science (Veterinary Forensics)				1

## 7. Recommendations

- Lack of adequate facilities/technologies in the clinical, diagnostic, animal breeding and reproduction sector are identified as the primary environmental and physical barriers impacting performance of Veterinary Officers. Therefore, support in the establishment of adequate clinical facilities, diagnostic facilities and institution of relevant technologies in animal breeding and reproduction are recommended to provide an enabling environment for effective implementation of the CBF for Veterinary Officers.

- Cost effective measures, for instance, using subject matter specialists available within the Department of Livestock as a resource for the training identified in the framework will enable implementation of capacity building programs in a very efficient and cost-effective manner. For subject areas where SMS is not available within the Department and/or country, sending out limited numbers of Veterinary Officers for training and using the trained manpower to further train the remaining Veterinary Officers should also cut down the cost.

## **8. Conclusion**

The Competency-based Framework identified 3 Key roles, 2 Competency Areas, 10 Key Competencies and 22 Behavior Indicators for Veterinary Officers under four proficiency levels (P1 to P4). This document will help in enhancing and strengthening the capacity and capabilities of the Veterinary Officers and ensure implementation of competency-based management with focus on human resource development. In developing the document, we identified several performance gaps for different proficiency levels of the Veterinary Officers, based on which learning objectives and training needs were identified. In total, 33 short term training and 13 long term training were identified for the key role Technical Expert, 8 short term training for Strategic planner and 5 short term training for the Manager. Given Veterinary Officers play a pivotal role in ensuring optimal health status of the animals (farm, pets and others), implementation of this document will contribute towards enhancing efficiency at individual and organizational level and realizing the vision of achieving self-reliance in livestock products and enhancement of well-being through enhanced domestic production.

## 9. Annexures

### 9.1 Annexure 1: Work Plan for developing competency-based framework for Veterinary Officers

Activities	Purpose	Option A (Normal Situation)	Cost	Date	Option B (Restricted travel, large gathering etc)	Cost	Date
Retreat for Taskforce	Consolidation of feedback on role profile and drafting of competency area, key competency, BI and PL	Punakha for 5 days	BTN 442,900.00	24-28 Feb 2021	Thimphu for 5 days	BTN 30,000.00	22-26 Feb 2021
Validation of role profile and drafting of competency area, key competency, BI and PL	First round validation		BTN -		Validation through online presentation	BTN 102,000.00	
Retreat to consolidate feedback and preparation of TNA questionnaire & drafting of TNA	Consolidate feedback and prepare of TNA questionnaire & drafting of TNA	Paro/Punakha for 2 days	BTN 47,040.00	1-2 March 2021	In Thimphu for 2 days	BTN 12,000.00	1-2 March 2021
Circulate TNA questionnaire to stakeholders	Collect TNA from the stakeholders	With all the stakeholders		3-5 March 2021	Give timeline line of 3 days to respond to the		3-5 March 2021
Retreat to consolidate TNA and drafting learning objectives	Consolidate TNA and draft learning objectives	Paro for 2 days	BTN 47,040.00	7-8 March 2021	In Thimphu for 2 days	BTN 12,000.00	7-8 March 2021
Presentation to stakeholders (virtual/face to face)/share draft	Validation of TNA and learning objectives	Through online presentation/ email correspondence		10 March 2021	Through online presentation/email correspondence (one day)		10 March 2021
Feedback consolidation & Presentation to DoL and HRC	Finalize CBF document	Presentation to the Department and the HRC		12 March 2021 and 16 March 2021	Through online presentation/email correspondence (one day)		12 March 2021 and 16 March 2021

9.2 Annexure 2: The proficiency levels of each key competency

<b>Key Role 1: Technical Expert</b>			
<b>Competency Area: Technical competency</b>			
<b>Key Competency: 1.1.1 Subject matter specialization</b>			
<b>Behavior Indicator: 1.1.1.1 Demonstrates professional knowledge and skills in clinical practice to enhance animal production and welfare.</b>			
<b>Entry (P4)</b>	<b>Intermediate (P3)</b>	<b>Experienced Level (P2)</b>	<b>Advanced Level (P1)</b>
Possesses basic professional knowledge in veterinary practices and animal welfare; Provides technical backstopping to para-professionals; adopts technologies in clinical practices	Possesses sound knowledge and skills through experience (practice and trainings) in veterinary practices and animal welfare	Possesses advanced knowledge in veterinary practices and animal welfare	Possesses capacity to advise and guide veterinary professionals in advanced veterinary practices and animal welfare
<b>Behavior Indicator: 1.1.1.2 Exhibits proficiency (knowledge and skills) in animal disease/disorder diagnosis to provide accurate and prompt veterinary response.</b>			
Holds professional knowledge in laboratory procedures, diagnostic tools and instruments to provide prompt veterinary	Exhibits experience and in-depth knowledge to diagnose all major animal diseases; be conversant with all lab diagnostic procedures	Possesses comprehensive knowledge and experience in animal diseases control; able to develop SOPs/Guidelines	Applies expert knowledge in review of disease diagnosis, animal disease control plans; SOPs/Guidelines and policies

response; Provides technical backstopping to para-professionals			
<b>Behavior Indicator: 1.1.1.3</b> Possesses epidemiological, One Health, Food safety, and Occupational safety knowledge and skills to safeguard animal and public health			
Displays professional knowledge in disease outbreak investigation, surveillance and containment	Applies basic epidemiological tools in disease outbreak investigations/ surveillance and containment	Exhibits advanced level of epidemiological data analytical skills; in-depth knowledge in formulating and developing disease control plans in line with food safety, occupational safety and one health	Applies expert knowledge and skills on interpretation of epidemiological information; guides and supports key policy decisions
<b>Behavior Indicator: 1.1.1.4</b> Pursues advanced professional knowledge, skills and technologies to adopt and deliver effective and efficient animal health, breeding and reproduction services			
PL at Entry	PL at Experienced	PL at Pre-Advanced Level	PL at Advanced Level
Acquires professional knowledge and abilities to adopt technologies in animal health, reproduction and breeding	Acquires and applies knowledge and experiences in use of advanced technologies on animal health, reproduction and breeding	Possesses advanced level of knowledge and skills in application of technologies and uses these knowledge and skills to develop animal health and reproductive management plans	Advises/ guides the use of technologies and development/review of animal health, reproductive and breeding plans
<b>Key Competency: 1.1.2</b> Aptitude for training and skills enhancement			

<b>Behavior Indicator: 1.1.2.1</b> Recognizes current and future knowledge gaps of relevant stakeholders to formulate training and skills enhancement plans			
Acquires knowledge in identifying and addressing current challenges in animal health, breeding and reproductive health services	Applies basic knowledge in identifying and addressing current challenges in animal health, breeding and reproductive health services	Predicts future needs for professional development and accordingly plan and explore opportunities	Applies expert knowledge and skills in developing HR master plans
<b>Behavior Indicator: 1.1.2.2</b> Possesses capability to impart knowledge and skills for capacity development of veterinary service providers and livestock farmers/service end users			
Possesses knowledge and skills and demonstrates capabilities to disseminate these knowledge and skills	Capable of planning and guiding development of training modules	Identifies knowledge gaps, predicts future needs and guides professional capacity development	
<b>Key Competency: 1.1.3 Research and analytical skills</b>			
<b>Behavior Indicator: 1.1.3.1</b> Identifies knowledge and skill gaps in veterinary research areas and conducts research to generate information to improve animal health and welfare to ensure informed policy decisions			
Possesses basic knowledge and skills in identifying the research areas in animal health and reproduction	Possesses advanced knowledge in identifying the research areas and conducting research	Acquires advanced knowledge in identifying the research areas and conducting independent research with practical applications	Utilizes expert knowledge in conducting and guiding research activities and provides evidence-based information to ensure informed policy decisions
<b>Key Role 2: Strategic Planner</b>			
<b>Competency Area: Technical competency</b>			
<b>Key Competency: 2.1.1 Domain expert</b>			

<b>Behavior Indicator: 2.1.1.1</b> Possesses sound knowledge on veterinary legislation, regulations and associated legal instruments to develop related policies			
Comprehends the rights, responsibilities, prerogatives and obligations that pertain to laws, regulations, and policies under veterinary legislation of the country	Comprehends, reviews, and cites relevant laws, regulations and policies (under veterinary legislation of the country) that provide legal justification for actions	Drafts relevant laws, regulations and policies consistent with veterinary legislation of the country	Initiates drafting of laws, regulations and policies in the scope of veterinary legislation of the country; ensures endorsement of laws and regulations, provides policy decisions and harmonizes veterinary legislation and associated legal instruments of the country with international legal frameworks like World Organization for Animal Health (OIE) Terrestrial codes
<b>Behavior Indicator: 2.1.1.2</b> Uses technical expertise to develop action plans in the sphere of activities within the purview of veterinary service (i.e., animal health and welfare, inspection and certification of animals and animal products, animal diseases prevention and control including transboundary animal diseases and diseases at human-animal-environment interface)			
Understands existing action plans of activities in the sphere of veterinary service in the country	Recognizes needs for action plans for activities in the scope of veterinary service and drafts action plans under the supervision of experts	Develops action plans for animal health management, and animal diseases prevention and control including transboundary animal diseases and diseases at human-animal-environment interface in the country	Develops action plans for animal health management, and animal diseases prevention and control including transboundary animal diseases and diseases at human-animal-environment interface in the country; align these action plans with the international bodies like OIE; and impart capacities in this sphere of activity
<b>Key Competency: 2.1.2 Visionary</b>			
<b>Behavior Indicator: 2.1.2.1</b> Understands and integrates the holistic paradigm of Gross National Happiness (GNH) to plans and policies (broadly the food security and self-sufficiency in livestock)			
Understands the fundamentals of GNH philosophy	Understands the GNH philosophy and integrates and aligns	Initiates drafting of plans and policies of the organization and ensuring that they align	Advises and guides parent agencies in formulating action plans aligning to the principles and indicators of GNH



and links it to the organization's vision of food security and self-sufficiency in livestock products	the elements of GNH into organization's plans and policies during the drafting	to the elements of GNH and organization's vision of food safety and security	
<b>Behavior Indicator: 2.1.2.2</b> Consistently and effectively plans for both long- and short-term to achieve defined objectives			
Possesses basic knowledge and skills on planning processes of the sector	Plans and strategizes development activities of the agency including resource management	Formulates long term plans with appropriate monitoring and evaluation mechanisms for organizational development	Advises and guides parent agencies in formulating pragmatic action plans including monitoring and evaluation, aligning to the overall vision of the department/ministry
<b>Key Competency: 2.1.3 Systems Thinking</b>			
<b>Behavior Indicator: 2.1.3.1</b> Organizes information and data to identify/explain major trends, problems, and causes; compares and combines information to identify underlying issues			
Gathers information and data on ideas and issues of the agency	Analyzes information and data and identifies problems and gaps of the agency	Analyzes information and data, identifies problems/gaps and conceives pragmatic solutions	Analyzes information and data, forecast problems/gaps, and provide guidance for policy decisions
<b>Behavior Indicator: 2.1.3.2</b> Identifies, integrates, and evaluates critical relations and connections of people, processes and technologies of the organization.			
Understands the importance of interacting and integrating people, processes and available technology within the agency	Understands complexities in a system to improve its performance	Understands complexities in a system and applies basic intervention measures to improve its performance	Understands, influences and solves the system deficiencies within and outside the organization

<b>Key Competency: 2.1.4 Aptitude for technology</b>			
<b>Behavior Indicator: 2.1.4.1</b> Recognizes the need for integrating technology in strategic planning and implementation of animal disease prevention & control including transboundary animal diseases, and emerging and re-emerging diseases; emergency preparedness and response; disease surveillance; and diagnostic capability.			
Acquires basic knowledge on planning and management tools (e.g., Prioritization matrices, activity network diagram) in preparing animal disease prevention, control and surveillance plans	Integrates and applies planning and management tools (e.g., Prioritization matrices, activity network diagram) in preparing animal disease prevention, control and surveillance plans	Integrates and applies bio-statistical tools and intermediate/advanced methodologies (e.g., R), machine learning algorithms (e.g., disease modelling), epidemiological tools (e.g., spatial modelling, Geographic information system (GIS) and remote sensing for evidence-based planning of animal disease prevention, control, and surveillance	Initiates and guides formulation of animal disease prevention, control and surveillance plans; and imparts capacities in bio-statistical and epidemiological tools, and machine learning algorithms for evidence-based planning of animal disease prevention, control, and surveillance
<b>Behavior Indicator: 2.1.4.2</b> Applies in-depth specialized knowledge, skills, and judgment by assessing and translating technologies into designing solutions.			
Possesses potentials and skills to identify technological advancement needs	Possesses potentials and skills to identify technological advancement needs and applies existing technologies	Introduces new and advanced technologies and makes concerted efforts in applying them at work	Recognizes technological needs of the organization and innovates new ideas for subsequent application at work
<b>Key Role 3: Manager</b>			
<b>Competency Area: Leadership competency</b>			
<b>Key Competency: 3.1.1 Strategic leadership</b>			
<b>Behavior Indicator: 3.1.1.1</b> Demonstrates growth mindset and institutes good feedback culture to promote personal and organizational development			

Acquires knowledge and ideas on growth mindset, feedback culture, and organizational development concept	Practice's self-reflection and understand the basics of developing a growth mindset to promote personal and organizational development	Exhibits growth mindset and practices good feedback culture (receiving, giving and seeking) with others to promote conducive and enabling work culture for organizational development	Institutes feedback culture and instills growth mindset in the organization to promote personal and organizational development
<b>Behavior Indicator: 3.1.1.2 Exhibits sound moral direction and promotes ethical and professional behavior in the organization</b>			
Performs responsibilities with accountability, exhibiting high moral values and integrity			
<b>Behavior Indicator: 3.1.1.3 Ensures effective planning and utilization of resources for overall organizational development.</b>			
Acquires understanding on the importance of effective planning and utilization of resources	Identifies the type and level of resources required to deliver service effectively for efficient utilization of the allocated resources	Executes systemic planning for management of resources for achievement of desired result of the organization	Achieves organizational goals through proper planning and mobilizing resources (financial and human)
<b>Key Competency: 3.1.2 Team building and empowerment</b>			
<b>Behavior Indicator: 3.1.2.1 Inspires and empowers subordinates to facilitate team building.</b>			
Performs the assigned duties diligently and contributes to teamwork	Plans, coordinates and promotes progressive teamwork for organizational development	Institutes a system which promotes teamwork	
<b>Behavior Indicator: 3.1.2.2 Provides pro-active support to sustain community-based veterinary initiatives.</b>			

Engages in development of community based veterinary initiatives	Initiates to implement sustainable community based veterinary initiatives	Demonstrates and Evaluates visible and sustainable community based veterinary initiatives	Establishes vibrant practices to promote community based veterinary initiatives
<b>Key Competency: 3.1.3 Communication and problem-solving skills</b>			
<b>Behavior Indicator: 3.1.3.1</b> Effectively communicates to disseminate/exchange information and builds good networking/ collaboration to foster organizational development			
Understands the need and acquires basic communication skills to disseminate/exchange information effectively and maintain good relationships with colleagues	Demonstrates basic communication skills to disseminate/exchange information effectively and maintain good relationships with colleagues	Demonstrates effective communication skills to disseminate /exchange information and establishes networks with relevant stakeholders for organizational development	Applies and promotes effective communication and fosters excellent networking/collaboration to achieve organizational goals
<b>Behavior Indicator: 3.1.3.2</b> Analyzes and anticipates potential problems to avoid consequences or mitigate undesirable impacts			
Understands the need and acquires basic skills to identify and	Applies basic skills to identify and anticipate potential	Develops and undertakes proactive approaches to address issues and accordingly make changes	Critically analyses key issues and challenges, develop and adopt strategic measures to overcome them

anticipate potential issues and suggest solutions	issues and suggest solutions		
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**9.3 Annexure 3: Assessment of adequacy of BIs, likely reason of performance gap and methods of intervention**

<b>Key Role: Technical expert</b>					
<b>Key Competencies</b>	<b>Behavioral indicator</b>	<b>Description of Proficiency Level</b>	<b>Performance (competent/Not competent)</b>	<b>Likely reason for performance gap</b>	<b>Methods of Intervention/Training Requirement</b>
Subject Matter Specialization	Demonstrate professional knowledge and skills in clinical practice to enhance production and animal welfare	(P3) Possesses sound knowledge and skills through experience (practice and trainings) in veterinary practices and animal welfare	Not competent	No orientation program	Orientation, mentoring and attachments
		(P2) Possesses advanced knowledge in veterinary practices and animal welfare	Not competent	Inadequate orientation and attachment in the organization	Orientation, mentoring and attachments and induction.
	Exhibits proficiency (knowledge and skills) in animal disease/disorder diagnosis to provide	P3 Exhibits experience and in-depth knowledge to diagnose all major animal diseases; be conversant with all lab diagnostic procedures	Not competent	Inadequate experience on application of epidemiological tools, occupational health safety, food safety and One Health	Classroom training, workshops, OJT

	accurate and prompt veterinary response.	P2 Possesses comprehensive knowledge and experience in animal diseases control; able to develop SOPs/Guidelines	Not competent	Inadequate practical experiences and orientation and attachment in the existing system	On Job training, Induction, orientation and Mentoring
	Possesses epidemiological, One Health, Food safety, and Occupational safety knowledge and skills to safeguard animal and public health	P4 (Entry level) Displays professional knowledge in disease outbreak investigation, surveillance and containment	Not competent	inadequate experience on application of epidemiological tools, occupational health safety, food safety and One Health	Classroom training, workshops, OJT
		P3 Applies basic epidemiological tools in disease outbreak investigations/ surveillance and containment	Not competent	inadequate experience on application of epidemiological tools, occupational health safety, food safety and One Health	Classroom training, workshops, OJT
	Pursues professional knowledge, skills and technologies to adopt and deliver effective and efficient animal health, breeding and reproduction services.	P4 (Entry level) Acquires professional knowledge and abilities to adopt technologies in animal health, reproduction and breeding	Not competent	Inadequate practical experiences and orientation and attachment in the existing system	On Job training, Induction, orientation and Mentoring
		P3 Acquires and applies knowledge and experiences in use of advanced technologies on animal health, reproduction and breeding	Not competent	Lack of updated knowledge and practical experience in animal breeding and reproduction and technologies	On Job training or Mentoring and classroom training

1.2 Research and Analytical skills	Identifies knowledge and skill gaps in veterinary research areas and conduct research to generate information to improve animal health and welfare to ensure informed policy decisions	P4 (Entry level) Possesses basic knowledge and skills in identifying the research areas in animal health and reproduction	Not competent	Difficulty to accurately identify research gaps	Training and workshops
		P3 Possesses advanced knowledge in identifying the research areas and conducting research	Not competent	Lack of experience to recognize research needs and conduct research	Training workshops
1.3 Aptitude for Training and skills enhancement	Possesses capability to impart knowledge and skills for capacity development of veterinary service providers and livestock farmers/service end users	P4 (Entry level) Possesses knowledge and skills and demonstrates capabilities to disseminate these knowledge and skills	Not competent	Do not have adequate experiences to impart trainings to the livestock service providers	Training workshops, classroom training, apprenticeship
	Recognizes current and future knowledge gaps of relevant stakeholders to formulate training and mentoring plans	P4 (Entry level) Acquires knowledge in identifying and addressing current challenges in animal health, breeding and reproductive health services	Not competent	Lack of experience to recognize training needs	Mentoring, training workshops, apprenticeship
		P3 Applies basic knowledge in identifying and addressing current challenges in animal health, breeding and reproductive health services	Not competent	Inadequate knowledge and experience to prepare training plans	Training workshops, classroom training, apprenticeship
<b>Key Role: Strategic planner</b>					

Key Competencies	Behavioral indicator	Description of Proficiency Level	Performance (competent/Not competent)	Likely reason for performance gap	Methods of Intervention/Training Requirement
2.1 Domain Expert	Possesses sound knowledge on veterinary legislation, regulations and associated legal instruments to develop related policies	P4 Comprehends the rights, responsibilities, prerogatives and obligations that pertain to laws, regulations, and policies under veterinary legislation of the country	Not competent	Since BVSc & AH/DVM degree (the prerequisite for becoming a veterinary officer) is not being offered in Bhutan, new graduates taking P4 position lack knowledge on veterinary legislative framework of the country	Orientation/Induction program
	Uses technical expertise to develop action plans in the sphere of activities within the purview of veterinary service (i.e., animal health and welfare, inspection and certification of animals and animal products, animal diseases prevention and control including transboundary animal diseases and diseases at	P4 Understands existing action plans of activities in the sphere of veterinary service in the country	Not competent	Since developing action plans for activities in the scope of veterinary service depends on broader plans at the national and agency level, new graduates need induction and orientation program	Orientation/Induction program



	human-animal-environment interface)				
2.2 Visionary	Understands and integrates the holistic paradigm of Gross National Happiness (GNH) to plans and policies (broadly the food security and self-sufficiency in livestock products) of the organization	P4 Understands the fundamentals of GNH philosophy and links it to the organization's vision of food security and self-sufficiency in livestock products	Not competent	GNH is the development philosophy Bhutan will adopt for perpetuity. However, GNH lectures are not formally delivered in institutions. Further, BVSc & AH/DVM degree is obtained outside the country. So, it is difficult to incorporate GNH at some proficiency levels	Orientation and self-learning
		P3 Understands the GNH philosophy and integrates and aligns the elements of GNH into organization's plans and policies during the drafting	Not competent	GNH is the development philosophy Bhutan will adopt for perpetuity. However, GNH lectures are not formally delivered in institutions. Further, BVSc & AH/DVM degree is obtained outside the country. So, it is difficult to incorporate GNH at	Orientation and self-learning

				some proficiency levels	
	Consistently and effectively plans for both long- and short-term to achieve defined objectives	P4 Possesses basic knowledge and skills on planning processes of the sector	Not competent	Inconsistent planning processes (frequent changes in the plans and policies) and low level of participation in planning process	Coaching and mentoring
		P3 Plans and strategizes development activities of the agency including resource management	Not competent	Inconsistent planning processes (frequent changes in the plans and policies) and low level of participation in planning process	Coaching and mentoring
3.4 Aptitude for technology	Recognizes the need for integrating technology in strategic planning and implementation of animal disease control including transboundary animal diseases, and emerging and re-emerging diseases; emergency preparedness and response; disease surveillance; and diagnostic capability	P4 Acquires basic knowledge on planning and management tools (e.g., Prioritization matrices, activity network diagram) in preparing animal disease prevention, control and surveillance plans	Not competent	1. Inadequate specialized training on statistical, machine learning, epidemiology and so on.  2. Inadequate linkages with international agencies (Government, Non-Government and Civil societies), academia and scientific communities	Fellowships, short courses, seminars, webinars, institutional visits, exchange programs, science exhibitions, conferences, seminar/workshops/conference
	Applies in-depth specialized knowledge, skills, and judgment by	P4 Possesses potentials and skills to identify technological advancement needs	<b>Not competent</b>		

	assessing and translating technologies into designing solutions	P3 Possesses potentials and skills to identify technological advancement needs and applies existing technologies	<b>Not competent</b>		
		P2 Introduces new and advanced technologies and makes concerted efforts in applying them at work	<b>Not competent</b>		
		P1 Recognizes technological needs of the organization and innovates new ideas for subsequent application at work	<b>Not competent</b>		
<b>Key Role: Manager</b>					
<b>Key Competencies</b>	<b>Behavioral indicator</b>	<b>Description of Proficiency Level</b>	<b>Performance (competent/Not competent)</b>	<b>Likely reason for performance gap</b>	<b>Methods of Intervention/Training Requirement</b>
3.1 Strategic leadership	Demonstrates growth mindset and institutes good feedback culture to promote personal and organizational development	P4 (Practices self- feedback culture (reflection)and understands the basics of developing growth mindset to promote personal and organisational development.)	Not competent	No formal training, poor work culture/awareness of good feedback culture in the organization	Mentoring/leadership coaching
		P3&P2 (Exhibits growth mindset and practices good feed back culture ( receiving, giving and seeking) with others to promote and organizational development)	Not competent	No formal training, poor work culture/awareness of good feedback culture in the organization	Mentoring/leadership coaching

	Exhibits sound moral direction and promotes ethical and professional behavior in the organization	P4 (Performs responsibly with accountability exhibiting moral values and integrity )	Not competent	No formal training and orientation	Coaching and mentoring
	Plans and utilizes resource effectively in relation to overall organizational development	P4 (Understands to identify the type and level of resources required to deliver service effectively and the allocated resources are efficiently utilized)	Not competent	No formal training and orientation	JIT, Mentoring
3.2 Team building and empowerment	Inspires and empowers subordinates to facilitate team building	P4 (Performs the assigned duties diligently and contributes to team work.)	Not competent	No formal training, limited skills in team building	Mentoring, JIT
	Provides visible and pro-active support to sustain community-based veterinary initiatives	P4 (Engages in development of community based veterinary initiatives.)	Not competent	Lack of practical experience	Mentoring, JIT
3.3 Communication and problem-solving skills	Effectively communicates to disseminate/ exchange information and builds good networking/collaboration to foster organizational development	P4 (Possesses basic communication skills to disseminate/exchange information effectively and maintain good relationship with colleagues)	Not competent	limited communication skills, lack of confidence	Classroom training and coaching
		P3 (Demonstrates effective communication skills to disseminate /exchange information and good networking with stakeholders)	Not competent	limited communication skills, lack of confidence	Classroom training and coaching

		for organizational development)			
	Analyzes and forecast the situation in advance to avoid consequences	P4 (Possesses basic skills to identify and forecast issues and adopts best solutions.)	Not competent	No formal training, Lack of experience and limited skills	JIT, Mentoring

#### 9.4 Annexure 4: Mandatory Short-term Training for Veterinary Officers

Sl. No	Type of Training	Target Group	Training Description	Training Provider/Location	Cost (BTN Million)	Learning outcome
1	Induction program	P4	Orientation of new veterinary graduates to all functionaries within the Department of Livestock for familiarizing them to clinical and preventive veterinary practice of Bhutan	AHD, DoL	1.35	New graduates are oriented to all functionaries within the Department of Livestock for familiarizing them to clinical and preventive veterinary practice of Bhutan
2	Advanced training on radio-imaging diagnostic technologies for large and small animals	P4-P2	Advanced training on radio-imaging diagnostic technologies for large and small animals. (Remarks: TOT)	Ex-country	2.6	Trainees acquire knowledge and skills to use radio-imaging diagnostic technologies for large and small animals
3	Gaseous anesthesia and patient monitoring	P4-P2	Hands-on-trainings on operation of anesthetic machine and patient monitoring	Invite experts from outside.	0.258	Trainees acquire knowledge and skills on operation of anesthetic machine and patient monitoring
4	Critical care/emergency management	P4-P1	Hands-on-training on Critical care/emergency management	Ex-country.	2.6	Trainees acquire knowledge and skills on critical care/emergency management

5	Customer care, patient handling and safety SOPs	P4	Hands-on-training on Customer care, patient handling and safety	NVH	0.5	Trainees acquire knowledge and skills on customer care, patient handling and safety
6	Aquatic Health	P3-P2	Crash course on common aquatic diseases, prevention and control	Ex-country	2.24	Trainees acquire knowledge and skills on common aquatic diseases, prevention and control
7	Animal welfare (animal behaviour, training and ethics)	P4-P2	Hands-on-training on animal behavior, training and ethics	Ex-country	3.2	Trainees acquire knowledge and skills on animal welfare (animal behaviour, training and ethics)
8	Oral hygiene and dentistry in pet animals	P4-P3	Hands-on-training on Oral hygiene and dentistry in pet animals	Ex-country	1.3	Trainees acquire knowledge and skills on oral hygiene and dentistry in pet animals
9	Animal physiotherapy and rehabilitation	P4-P3	Hands-on-training on Physiotherapy and rehabilitation	Ex-country	1.3	Trainees acquire knowledge and skills on physiotherapy and rehabilitation
10	Wildlife rescue and rehabilitation training program	P4-P3	Training on wildlife rescue, immobilization, restraining and rehabilitation	WII, WTI india	3.36	Trainees acquire knowledge and skills on wildlife rescue, immobilization, restraining and rehabilitation
11	Basic operational Research Methodologies	P4	Training on use of basic epidemiological tools and research methods	In-Country institutes	2.2	Trainees acquire knowledge and skills on research methodology and tools such as R, SPSS, Stata, GIS and QGIS

12	Advanced operational Research Methodologies	P3-P1	Use of advanced and complex epidemiological tools for conducting advanced researches	Internationally recognized institute	3.2	Trainees acquire knowledge and skills on advanced operational research methodologies i.e., disease modelling
13	Risk Analysis in animal health	P4-P2	Qualitative and Quantitative risk analysis training	Ex-country and In-country	0.88	Trainees acquire knowledge and skills on qualitative and quantitative risk assessment
14	Field epidemiology training program	P4-P2	Hands on training on outbreak investigation, animal disease surveillance, prevention and control of animal diseases (including transboundary animal diseases, emerging and reemerging diseases); and epidemiological data and report generation	Ex-country	3.29	Trainees acquire knowledge and skills on field epidemiological skills (surveillance, disease outbreak investigation and data analysis)
15	Exotic animal health	P4-P2	Crash course on exotic animal care and management	Ex-country	2.07	Trainees acquire knowledge and skills on exotic animal care and management
16	Apiary Health management	P4-P3	Crash course on bee disease prevention and control	Ex-country	0.93	Trainees acquire knowledge and skills on bee disease prevention and control

17	Antibiotic Susceptibility (AST) profiling and Antimicrobial Resistance (AMR) detection in common veterinary pathogen	P3-P2	AST profiling and phenotypic detection of AMR pattern in common veterinary pathogens - <i>E coli</i> , Staphylococcus, Streptococcus, Campylobacter and Salmonella	Ex-country	2.3	Trainees acquire knowledge and skills on AST profiling and phenotypic detection of AMR pattern in common veterinary pathogens - <i>E coli</i> , Staphylococcus, Streptococcus, Campylobacter and Salmonella
18	Laboratory biosafety and biosecurity	P4-P2	Training on Identification and mitigation of exposure to laboratory hazards (chemical, infectious and radiation); working in bio-safe environment; containment of potentially dangerous pathogens in laboratory facilities	NCAH	0.65	Trainees acquire knowledge and skills on identification and mitigation of exposure to laboratory hazards (chemical, infectious and radiation); working in bio-safe environment; containment of potentially dangerous pathogens in laboratory facilities
19	Molecular diagnosis of common veterinary diseases	P3-P1	Conventional and real-time PCR technologies to detect common veterinary pathogens - HPAI, FMD, PRRS, CSF, ASF, HS, Mycoplasma, LSD, Pox, PPR, PPMV, ND, Anthrax, Brucellosis and Helminths)	Ex-country	3.5	Trainees acquire knowledge and skill on conventional and real-time PCR technologies to detect common veterinary pathogens - HPAI, FMD, PRRS, CSF, ASF, HS, Mycoplasma, LSD, Pox, PPR, PPMV, ND, Anthrax, Brucellosis and Helminths)



20	Serology techniques	P4-P2	Serological test (rapid test, agglutination test, ELISA, FAT, HAI) for different analytes (antibody, antigen, toxins and other biomolecules) of important animal diseases and veterinary significance	NCAH	3.2	Trainees acquire knowledge and skills on serological test (rapid test, agglutination test, ELISA, FAT, HAI) for different analytes (antibody, antigen, toxins and other biomolecules) of important animal diseases and veterinary significance
21	Laboratory quality assurance	P4-P1	Proficiency testing scheme to maintain the quality of laboratory test performed on AMR detection, serological test, GLP and molecular test	Ex-country	3.53	Trainees acquire knowledge and skill on a proficiency testing scheme to maintain the quality of laboratory tests performed on AMR detection, serological test, GLP and molecular test
22	AI Refresher training	P4-P3	Hands on training on artificial insemination in large animals	NDRDC	2.52	Trainees acquire knowledge and skills on artificial insemination in large animals
23	Pregnancy diagnosis	P4	Hands on training on pregnancy diagnosis in dairy animals	NDRDC	1.26	Trainees acquire knowledge and skills on pregnancy diagnosis in large animals
24	Embryo transfer and advanced reproductive technology	P3-P1	Applied training on animal reproduction and breeding technologies	Ex-country	0.8	Trainees acquire knowledge and skills on animal reproduction and breeding technologies

25	Avian Health	P4-P3	Crash course on anatomy, physiology, common avian diseases, disease specific pathology in different organ system and performing PM in chickens and other bird species	NCAH/Ex-country	2.7	Trainees acquire knowledge and skills on Anatomy, physiology, common avian diseases, disease specific pathology in different organ system and performing PM in chickens and other bird species
26	Animal disease Investigation (ADI) - field investigation, postmortem and penside test	P4-P3	Training on disease outbreak investigation, performing penside test, performing post mortem and drawing conclusion	NCAH	1.5	Trainees acquire knowledge and skills on Disease outbreak investigation, performing penside test, performing post mortem and drawing conclusion
27	Clinical biochemistry	P3-P2	Refresher course on serum biochemistry (mineral, enzymes, hormones and other biomolecules)	Ex-country	1.5	Trainees acquire knowledge and skills on Serum biochemistry (mineral, enzymes, hormones and other biomolecules)
28	Histopathology	P3-P2	Training on cell structure and physiology, tissue processing, cytopathology and significance of cytopathology to different disease conditions	NCAH	1.4	Trainees acquire skills and knowledge on Cell structure and physiology, Tissue processing, cytopathology and its significance to different disease conditions
29	Parasitology	P3-P2	Training on specialized techniques on key parasite identification (adult, larva, egg) of ecto and endo parasites of veterinary significance	NCAH	1.8	Trainees acquire skills and knowledge on specialized techniques on key parasite identification (adult, larva, egg) of ecto and endo

						parasites of veterinary significance
30	Project management	P4-P1	Crash course on management of resources, planning of project activities, and monitoring and evaluation	RIM	4.5	Trainees acquire skills and knowledge on management of resources, planning of project activities, and monitoring and evaluation of project activities
31	ICT training (ICT skills and communication)	P4-P2	Basics ICT skills for effective communication and management	RIM	0.119	Trainees acquire skills and knowledge on basic ICT skills for effective communication and management
32	Veterinary symposium	P4-P1	Sharing of cases, research findings and ideas	NCAH	0.8	Veterinary officers will be able to share ideas, knowledge and research findings
33	Development of Veterinary legislation	P4-P1	Workshop and write shop on development of veterinary legislation	In-country	0.5	Veterinary officers will be able to develop a legislation to promote professional development, ensure effective service delivery and protect the profession

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