

National Bridging Workshop on the International Health Regulations (IHR) and the OIE Performance of Veterinary Services (PVS) Pathway

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Paro, Bhutan



Organized by WHO, OIE, the Ministry of Health and the Ministry of Agriculture and Forests of Bhutan

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ABBREVIATIONS & ACRONYMS

AAR	After Action Review
AH	Animal Health
AI	Avian Influenza
BAFRA	Bhutan Agriculture and Food Regulatory Authority
BHU	Basic Health Unit
BOHSP	Bhutan's One Health Strategic Plan
CME	Country Monitoring and Evaluation, WHO Health Emergency programme
CVO	Chief Veterinary Officer
DMS	Department of Medical Services
DoF	Department of Forests
DoL	Department of Livestock
DoPH	Department of Public Health
DVH	District Veterinary Hospital
FETP	Field Epidemiology Training Program
FP	Focal Point
FYP	Five Year Plan
HQ	Headquarters
IHR	International Health Regulations (2005)
IT	Information technology
JEE	Joint External Evaluation
KGUMSB	Khesar Gyalpo University of Medical Sciences of Bhutan
MEF	Monitoring and Evaluation Framework
MoAF	Ministry of Agriculture and Forests
MoH	Ministry of Health
MoU	Memorandum of Understanding
NAPHS	National Action Plan for Health Security
NCAH	National Center for Animal Health
NFP	National Focal Point
OIE	World Organisation for Animal Health
PH	Public Health
PVS	Performance of Veterinary Services
RCDC	Royal Center for Disease Control
RGOB	Royal Government of Bhutan
RUB	Royal University of Bhutan
SEARO	WHO Regional Office for South-East Asia
SIMEX	Simulation Exercise
SOP	Standard Operating Procedures
TOR	Terms of Reference
WHO	World Health Organization

INTRODUCTION

BACKGROUND

The World Health Organization (WHO) and the World Organisation for Animal Health (OIE) are the two main international organizations responsible for proposing references and guidance for the public health and animal health sectors respectively. WHO and OIE have been active promoters and implementers of an intersectoral collaborative approach between institutions and systems to prevent, detect, and control diseases among animals and humans. They have developed various frameworks, tools and guidance materials to strengthen capacities at the national, regional and global levels.

- WHO Member States adopted a legally binding instrument, the International Health Regulations (IHR, 2005), for the prevention and control of events that may constitute a public health emergency of international concern. Through these regulations, countries are required to develop, strengthen and maintain minimum national core public health capacities to detect, assess, notify and respond to public health threats and as such, should implement plans of action to develop and ensure that the core capacities required by the IHR are present and functioning throughout their territories. Various assessment and monitoring tools have been developed by WHO such as the IHR Monitoring and Evaluation Framework (MEF), which includes *inter alia* the Annual Reporting Questionnaire for Monitoring Progress and the Joint External Evaluation (JEE) Tool.
- The OIE is the intergovernmental organization responsible for developing standards, guidelines and recommendations for animal health and zoonoses; these are laid down in the OIE Terrestrial and Aquatic Animal Codes and Manuals. In order to achieve the sustainable improvement of national Veterinary Services' compliance with these standards, in particular on the quality of Veterinary Services, the OIE has developed the Performance of Veterinary Services (PVS) Pathway, which is composed of a range of tools to assist countries to objectively assess and address the main weaknesses of their Veterinary Services.



These support tools shift away from externally driven, short-term, emergency response type 'vertical' approaches addressing only specific diseases, and contribute to a more sustainable, long term 'horizontal' strengthening of public and animal health systems. The WHO IHR MEF and the OIE PVS Pathway approaches enable countries to determine strengths and weaknesses in their respective functions and activities, and promote prioritization and pathways for improvement. Furthermore, they engage countries in a routine monitoring and follow up mechanism on their overall level of performance and help to determine their needs for compliance with internationally adopted references and standards.

The use of the WHO IHR monitoring tools and OIE PVS Pathway results in a detailed assessment of existing weaknesses and gaps, with the better alignment of a capacity building approach and strategies at country level between the human and animal health sectors. The two organizations have developed a workshop format (the IHR-PVS National Bridging Workshops) that enables countries to further explore possible overlapping areas addressed in their PVS and IHR capacity frameworks and develop, where relevant, appropriate bridges to facilitate coordination. A structured approach using user-friendly materials enables the identification of synergies, reviews gaps and defines the operational strategies to be used by policy makers for concerted corrective measures and strategic investments in national action plans for improved health security.

In Bhutan,

- a PVS Evaluation was conducted in June 2008;
- a PVS Gap Analysis was conducted in November 2009;
- a PVS follow-up mission was conducted in March 2015;
- a Joint External Evaluation (JEE) mission was conducted in December 2017.

OBJECTIVES OF THE WORKSHOP AND EXPECTED OUTCOMES

The main objective of the IHR-PVS Pathway National Bridging Workshop (IHR-PVS NBW) is to provide an opportunity to the human and animal health services of hosting countries to build on the reviews of performance, gaps and discussions for improvement conducted in their respective sectors, and to explore options for improved coordination between the sectors, to jointly strengthen their preparedness for, and control of, the spread of zoonotic diseases.

The IHR-PVS NBWs focus on the following strategic objectives:

- **Brainstorming:** discuss the outcomes of IHR and PVS Pathway country assessments and identify ways to use the outputs;
- **Advancing One Health:** improve dialogue, coordination and collaboration between animal and human health sectors to strategically plan areas for joint actions and a synergistic approach;
- **Building Sustainable Networks:** contribute to strengthening the inter-sectoral collaboration through improved understanding of respective roles and mandates;
- **Strategic planning:** inform planning and investments (incl. the National Action Plan for Health Security) based on the structured and agreed identification of needs and options for improvement

Expected **outcomes** of the workshop include:

1. Increased awareness and understanding on the IHR (2005) and the role of WHO, the mandate of the OIE, the IHRMEF and the OIE PVS Pathway, their differences and connections.
2. Understanding of the contribution of the veterinary services in the implementation of the IHR (2005) and how the results of the PVS Pathway and IHRMEF can be used to explore **strategic planning** and capacity building needs.
3. A **diagnosis** of current **strengths and weaknesses of the collaboration** between the animal health and public health services.
4. Identification of practical next steps and activities for the development and implementation of **joint national roadmap** to strengthen collaboration and coordination.

The agenda of the Workshop is available at [Annex 1](#). It was attended by 69 participants ([Annex 2](#)), with approximately one half from the Ministry of Health and the other half from the Ministry of Agriculture and Forests with representatives from the Central, Provincial and District level attending the three-day discussions.

REPORT ON THE SESSIONS

The workshop used an interactive methodology and a structured approach with user-friendly material, case studies, videos and facilitation tools. All participants received a *Participant Handbook* which comprised of all necessary information such as the objectives of the workshop, instructions for working groups, expected outcomes of each session etc. Sessions were structured in a step-by-step process as follows:

OPENING SESSION

The opening ceremony was attended by high level national representatives from both Ministries. A Marchang ceremony (Figure 1), was first performed to bless the upcoming workshop.

Opening speeches were given by Dr Tashi Samdup (Director General, DOL/MOAF), Dr Stella Chungong (Chief of Unit, CME/WHO HQ), Dr Caitlin Holley (Regional Veterinary officer, OIE regional representation for Asia and the Pacific), Mr. Jamtsho (National IHR Focal Point, DMS/MOH), and H.E. Lyonpo Yeshe Dorji, Honorable Minister of MOAF, who officially opened the workshop.

After a group photograph, participants were all given the opportunity to briefly introduce themselves.



Figure 1: Marchang Ceremony performed in the presence of Honorable Minister of MoAF. The Marchang Ceremony is an offering made to the God and local deities to remove obstacles and to get blessings so that the desired work is accomplished successfully. In Bhutanese tradition Marchang is performed prior to any important event.

SESSION 1: THE ONE HEALTH CONCEPT AND NATIONAL PERSPECTIVES

Dr Gongal (SEARO) initiated the first technical session with a presentation on the One Health Concept, its history, rationale and purpose and how it became an international paradigm. The presentation also introduced the workshop in the global and national context by providing high level background information on the collaboration between WHO, OIE and FAO, globally and at the regional level.

Dr Chungong (WHO HQ) presented the IHR (2005) as well as the IHR Monitoring and Evaluation Framework and its different components. Objectives and processes, as well as implementation status of each of those components (JEE, AAR, SimEX, Annual reporting) were further detailed. The essential role of the One Health approach in each component was then emphasized.

Dr Rinzin (DOL, MOAF) presented an overview on the structure and function of the veterinary services in Bhutan. An organigram of all actors involved in the mandate of the Veterinary Services, as well as the network of veterinary district centers and animal health laboratories throughout the country were presented. Animal health strategies were summarized, with a focus on the One Health initiatives such as the Bhutan One Health Strategic Plan (2016-2020), the annual national workshops, the recent MoU between MoH, MoAF and other collaborating partners as well as the ongoing establishment of a One Health Secretariat. Finally, the reporting and information sharing system for zoonoses as well as some concrete examples of response mechanisms for priority zoonoses such as avian influenza and rabies were discussed.

Mr Jamtsho (DMS, MOH) presented the structure and organigram of the Ministry of Health and the extensive network of health facilities across the country. Details were given on the coordination and channels of communication between the health sector and other relevant partners.

Dr Kinzang Dukpa (NCAH, Serbithang) presented a timeline of key events for Bhutan One Health initiatives including the key achievements of the One Health program which include (i) the strengthened inter-sectoral collaboration, (ii) the strengthened regional and global collaboration, (iii) the capacity development (particularly in terms of epidemiology) and (iv) the joint disease control plans and strategies for key diseases such as rabies. Current issues and gaps were highlighted (hot spot of Asian region, high vulnerability (geographical and economic) of Bhutan, and the rich biodiversity and animal-wildlife interface due to 72% forest coverage. Institutional setup and coordination linkages between key stakeholders of One Health were presented. The seven strategies of the One Health Programme were then further detailed.

After these presentations, the workshop approach and methodology were explained and the participant handbook was presented. A documentary video provided participants with concrete worldwide examples of intersectoral collaboration in addressing health issues at the human-animal interface.

Outcomes of Session 1:

At the end of the session, the audience agreed that:

- Intersectoral collaboration between animal and human health sectors happens, but mainly during outbreaks; with a better preparedness, much more could be done at the human-animal interface.
- The two sectors have common concerns and challenges and conduct similar activities. Competencies exist and can be pooled. This needs to be organized through a collaborative approach;
- WHO, OIE and FAO are active promoters of One Health and can provide technical assistance to countries to help enhance inter-sectoral collaboration at the central, local and technical levels.

SESSION 2: NAVIGATING THE ROAD TO ONE HEALTH – COLLABORATION GAPS

Participants were divided into five working groups of mixed participants from both sectors (MoH and MoAF) and from different levels (Central, Provincial, District). Groups were provided with one of five case study scenarios (Table 1) based on diseases relevant to the Bhutanese context (avian influenza H5N1, rabies, anthrax, brucellosis and a foodborne outbreak of salmonella sp.) developed in collaboration with MoH and MoAF representatives.

Table 1: Scenarios used for the different case studies

<p>Rabies (disclaimer: this case is entirely fictitious) - A puppy which had shown aggressive signs was taken to the veterinary hospital in Thimphu. History taking revealed that the puppy had escaped, bitten a cow and had several fights with other dogs in the neighbourhood. Further history revealed that the owner received the puppy from cousins in Trashigang where there had been an outbreak of rabies which had been brought under control about a month ago.</p>
<p>Avian Flu (disclaimer: this case is entirely fictitious) - Two persons were admitted at the Gelephu Hospital with pneumonia. Laboratory testing by RT-PCR resulted positive for H5N1 subtype of avian influenza. One of the patients is a worker in a semi-commercial layer farm. A week before, sudden die-off of some wild birds was observed in Gelephu.</p>
<p>Anthrax (disclaimer: this case is entirely fictitious) - At least 10 people who allegedly ate uninspected meat in a small village of Chhukha District have been screened for anthrax. The victims, among them school children, were rushed to primary health care center after they developed symptoms associated with anthrax and cutaneous lesions. The man who distributed the meat disappeared after learning that his neighbours had fallen sick.</p>
<p>Salmonellosis (disclaimer: this case is entirely fictitious) - 16 people in the capital sought medical attention when they suffered high fever, nausea, diarrhea and severe abdominal pain, 12-36 hours after eating street-food at a festival. Of these, seven were hospitalized. All recovered within a week. The street vendor said that it sourced its eggs from a reputable supermarket and used them fresh every day.</p>
<p>Brucellosis (disclaimer: this case is entirely fictitious) - Three goats all belonging to a small-holder dairy farmer in Samtse aborted. At the time of the first two abortions the farmer did not bother to report the problem to his local veterinary officer as his farm was too far away from the District Veterinary Office. In parallel, seven persons from the same village developed clinical signs such as headaches, fever and muscle cramps. Two of them were hospitalized and laboratory testing confirmed that they were infected by <i>Brucella melitensis</i>.</p>

Using experience from previous outbreaks of zoonotic diseases, the groups discussed how they would have realistically managed these events, and evaluated the level of collaboration between the veterinary and the public health services for 16 key technical areas: coordination, investigation, surveillance, communication, etc. These activities/areas of collaboration were represented by color-coded *technical area cards*: green for “good collaboration”, yellow for “some collaboration”, and red for “collaboration needing improvement”.



Figure 2: Participants working on a case study scenario of anthrax are evaluating the level of collaboration between the two sectors for 16 key technical areas.

During an ensuing plenary session, each group presented and justified the results of their work. Output 1 summarizes the results from the five groups.

Outcomes of Session 2:

- Areas of collaboration are identified and joint activities discussed.
- Level of collaboration between the two sectors for 16 key technical areas is assessed.
- Strengths and weaknesses in the intersectoral collaboration are identified.

SESSION 3: BRIDGES ALONG THE ROAD TO ONE HEALTH

Documentary videos introduced the international legal frameworks followed by human health ([IHR 2005](#)) and animal health ([OIE standards](#)) as well as the tools available to assess the country's capacities: the annual reporting and JEE tools for public health services and OIE PVS Pathway for veterinary services.

Results of the JEE in Bhutan and PVS follow up missions in Bhutan were presented respectively by Dr Jamtsho (IHR NFP) and Dr Rinzin (Chief Veterinary Officer).

The differences and connections between these tools were explained. A large matrix (IHR-PVS matrix), cross-connecting the indicators of the IHR MEF (in rows) and the indicators of the PVS Evaluation (in columns) was set-up and introduced to the participants. Through an interactive approach, working groups were invited to plot their *technical area cards* onto the matrix by matching them to their corresponding indicators. A plenary analysis of the outcome showed clear gap clusters and illustrated that most gaps were not disease-specific but systemic.

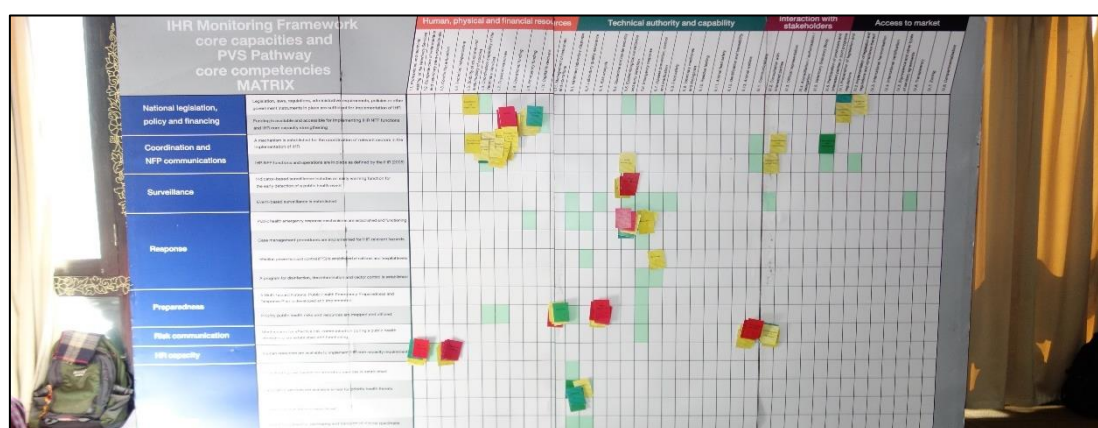


Figure 3: Results of the mapping of collaborative strengths and weaknesses on the IHR-PVS matrix.

The main gaps (clusters) identified were discussed and it was agreed that the rest of the workshop would focus on the following capacities:

- Coordination
- Human resources and Education
- Risk Assessment and Surveillance
- Field Investigation and Response
- Communication with Media

Note: 'Finance' also came-up as one of the technical areas needing most improvement (three red and two yellow). However, participants agreed that the audience of this workshop would not be able to provide substantial improvements in that domain. It remains nonetheless one of the major gaps to impair the efficiency of the intersectoral collaboration in Bhutan.

Outcomes of Session 3:

- Understanding that tools are available to explore operational capacities in each of the sectors.
- Understanding of the contribution of the veterinary sector to the IHR.
- Understanding of the bridges between the IHR MEF and the PVS Pathway. Reviewing together the results of capacities assessment may help in identifying synergies and optimize collaboration.
- Understanding that most gaps identified are not disease-specific but systemic.
- Identification of the technical areas to focus on during the next sessions.

SESSION 4: CROSSROADS – PVS PATHWAY AND IHR MEF REPORTS

New working groups with representation from all previous groups were organized for each of the five priority technical areas.

The matrix was used to link the identified gaps to their relevant indicators in the IHR MEF and in the PVS Pathway. Each working group then opened the assessment reports (JEE and PVS Follow-up) and extracted the main findings and recommendations relevant to their technical area (Figure 4).



Figure 4: Group working on 'Coordination' and extracting results from PVS and JEE reports. The reporting panel is split into two columns (PVS and JEE), orange and green post-its summarize respectively the gaps and the recommendations described in the assessment reports or identified from case study discussions.

Outcomes of Session 4:

- Good understanding of the assessment reports for both sectors, their purpose and their structure.
- Main gaps relevant to each technical area have been extracted.
- Main recommendations from existing reports have been extracted.
- A common understanding of the effort needed starts to emerge.

SESSION 5: ROAD PLANNING

Using the same working groups as for the previous session, participants were asked to identify, for each technical area, up to three joint objectives to improve their collaboration. For each objective, they filled *Action Cards*, detailing the activities, their dates of expected implementation, the focal points responsible, the required support as well as measurable indicators (Figure 5).



Figure 5: The group working on “Field Investigation and Response” identified two objectives and six activities to improve the collaboration between the two sectors in this domain.

The difficulty of implementation and the expected impact of each activity were evaluated using red and blue stickers respectively and a semi-quantitative scale (1 to 3).

Outcomes of Session 5:

- Clear and achievable objectives and activities are identified to improve inter-sectoral collaboration between the two sectors for all technical areas selected.
- For each activity, a desired completion date, focal points, required support and measurable indicators have been identified.
- The impact and the difficulty of implementation of all proposed activities have been estimated.

SESSION 6: FINE-TUNING THE ROAD-MAP

In-between Sessions 5 and 6, the team of external experts circulated through the different panels to discuss about the results at this stage. When there was a need for further clarification or for discussion on the objectives and activities identified by participants, post-it notes were left on the panels. At the beginning of Session 6, participants were given an hour to address the comments made with the assistance of the external experts.

A World Café exercise was then organized to enable participants to contribute to the action points of all technical areas. Each group nominated a rapporteur whose duty was to summarize the results of their work to the other groups. Each group rotated between the different boards to contribute and provide feedback on all technical areas by noting down their suggestions or comments on post-it notes. At the end of the cycle, each group returned to their original board and addressed all changes or additions suggested by the other participants (Figure 6). Objectives and activities were fine-tuned accordingly.

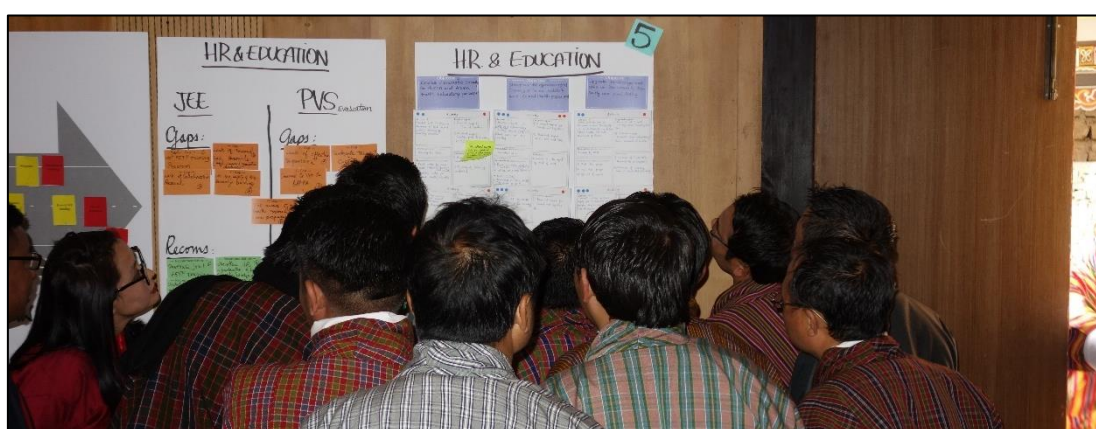


Figure 6: World café exercise: the group on “Coordination” is providing feedback to the panel of the “Human Resources and Education” group.

The final joint road-map is fully detailed in [Output 2](#).

Prioritization of Objectives

A total of 13 objectives were identified. To prioritize them, an online application was used. Participants were asked to connect from their own device or to use computers set-up by facilitators to identify which five objectives they considered as highest priority.

Outcomes of Session 6:

- Harmonized, concrete and achievable joint road-map to improve the collaboration between the animal health and human health sectors in the prevention, detection and response to zoonotic disease outbreaks.
- Buy-in and ownership of all participants who contributed to all areas of the road-map.
- Prioritization of the activities.

SESSION 7: WAY FORWARD & LINKING WITH BHUTAN'S ONE HEALTH STRATEGIC PLAN

Results of the prioritization vote were presented and discussed. 44 participants voted, results can be found in Output 3.

Dr Dorjee (Director of Khesar Gyalpo University of Medical Sciences) presented a brief overview of Bhutan's One Health Strategic Plan (OHSP). A focus was then given on each of the seven key strategies of the plan. For each of them, participants from each group were to make linkages with the established joint road-map by identifying the activities which could fit under each of the seven strategies. Activity cards were then placed on a timeline of the next 5 years.

Results of the cross-matching between the road-map and Bhutan's One Health Strategic Plan (BOHSP) can be found in Output 4.

Outcomes of Session 7:

- Linkages between the joint-road map and Bhutan's One Health Strategic Plan.
- Timeline of the joint road-map established.

CLOSING SESSION

The workshop ended with statements from MoH and MoAF indicating that both sectors took ownership of the outcomes of the workshop. They also ensured joint engagement in addressing the gaps identified for collaboration at the human-animal interface. WHO and OIE reiterated their full commitment to support the country in improving this collaboration.

All the material used during the workshop, including movies, presentations, documents of references, and results from the working groups were copied on a USB memory stick distributed to all participants.

A 5-minute video summarizing the workshop was compiled and presented during the closing session. The video is available at the following link: www.bit.ly/NBWBhutan

A photo album was also compiled and is available at the following link: www.bit.ly/NBW_Bhutan_Photos

WORKSHOP OUTPUTS

OUTPUT 1: ASSESSMENT OF LEVELS OF COLLABORATION FOR 16 KEY TECHNICAL AREAS

Technical area (cards)	Rabies	Anthrax	H5N1	Brucellosis	Salmonellosis	Score
Finance	Red	Red	Yellow	Yellow	Red	8
Risk assessment	Red	Yellow	Yellow	Red	Red	8
Education and training	Red	Red	Yellow	Yellow	Red	8
Communication w/ media	Yellow	Yellow	Red	Red	Yellow	7
Joint surveillance	Yellow	Yellow	Yellow	Red	Red	7
Coordination at local Level	Yellow	Yellow	Yellow	Yellow	Yellow	5
Coordination at technical Level	Yellow	Yellow	Yellow	Yellow	Yellow	5
Field investigation	Green	Red	Yellow	Green	Red	5
Human resources	Yellow	Green	Yellow	Yellow	Red	5
Logistics	Yellow	Yellow	Green	Yellow	Red	5
Coordination at high Level	Yellow	Yellow	Green	Yellow	Yellow	4
Response	Yellow	Green	Yellow	Yellow	Yellow	4
Emergency funding	Green	Yellow	Yellow	Yellow	Yellow	4
Legislation / Regulation	Yellow	Yellow	Green	Yellow	Green	3
Communication w/ stakeholders	Yellow	Yellow	Yellow	Green	Green	3
Laboratory	Green	Green	Green	Green	Yellow	1

For each disease, the performance of the collaboration between the human health and the animal health sectors is color-coded: green for “good collaboration”, yellow for “some collaboration”, and red for “collaboration needing improvement”. The score uses a semi-quantitative scale (2 points for a red card, 1 for a yellow card and 0 for a green card). Technical areas marked in bold were selected and addressed in-depth throughout the rest of the workshop.

OUTPUT 2: OBJECTIVES AND ACTIONS IDENTIFIED PER TECHNICAL AREAS

Action	Timeline	Difficulty (1-3 scale)	Impact (1-3 scale)	Responsibility	Indicators
COORDINATION					
Objective 1: Strengthen intersectoral collaboration at central level					
1.A. Establish and operationalize one health secretariat	Dec. 2018	++	+++	RCDC, DoPH, NCAH, DoL, BAFRA, MoAF	Functional one health secretariat
1.B. Conduct one health workshop annually led by MoH & MoAF on alternate basis	Every March	+	++	DoPH, MoH, DoL, BAFRA, OH secretariat	Workshop report & resolution
1.C. Conduct consultative meeting with relevant stakeholders (private sector, farmer's group, etc.) for introducing new AH policies & new disease control plans.	As & when required	++	++	NCAH, DoL (lead), RCDC, DoPH, DLO, DHO, BAFRA	Meeting report No. of participants
Objective 2: Institutionalize mechanism for coordination at the district level					
2.A. Conduct technical coordination workshop amongst the key stakeholder at the field level annually	Every January	+	+++	DHO & DLO (lead on alternate basis), BAFRA, Livestock extension agents	Workshop report & resolutions
2.B. Develop SOPs for formal coordination between relevant stakeholders for zoonosis at local level by first year of 12th FYP	Jun. 2019	+	++	DoL (Lead), NCAH, DoPH, DMS, BAFRA, Wild life, RLDCs	SOPs developed & distributed
2.C. Engage livestock owners & private sector during disease containment programs of priority diseases for effective disease control	As & when required	++	++	RLDCs (Lead), DVH, DoL, NCAH, RRHs, DH, DMS, RCDC, DoPH, Local gov.	No. of participants. Meeting or awareness program reports.
Objective 3: Strengthen cross-border coordination					
3.A. Advocate for inclusion of transboundary animal diseases and public health issues in the existing border harmonization meeting between India and Bhutan	Jul. 2018	++	+++	DoL(Lead), DoPH, BAFRA, Dept. law and order (India), Dept. local gov. (India)	No. of border harmonization meetings attended by AH and PH officials.
3.B. Dzongkhag Livestock Sector and Dzongkhag Health sector to jointly coordinate border harmonization meeting between relevant stakeholders in Bhutan and India.	Every February	+++	+++	DHO and DLO (lead) Jointly with support from NCAH, RLDC and Regional referral hospitals (RRHs)	Meeting report MoU signed between Bhutan and India

SURVEILLANCE & RISK ANALYSIS

Objective 4: Strengthen the surveillance system for prioritized zoonotic diseases

4.A. Conduct a workshop to revisit the prioritized zoonotic diseases and to develop a surveillance plan	Dec. 2018	+	+++	DoL (Lead), DoPH/RCDC, DMS, BAFRA, DoFPS	Workshop report Surveillance plan developed
4.B. Conduct a workshop to develop joint guidelines and SOPs for prioritized zoonotic disease	Feb. 2019	+	+++	DoL (Lead), DoPH/RCDC, DMS, BAFRA, DoFPS	Joint guidelines and SOPs developed
4.C. Conduct a training for relevant field staff at regional or Dzongkhag level (DoL/BAFRA/DOFPS/DMS) on disease surveillance strategy	Apr. 2019, Apr. 2021	++	++	DoPH/RCDC (Lead), DoL, DMS, BAFRA, DoFPS	Training conducted in four regions (two times)
4.D. Develop and integrate joint real time web based and SMS information system for zoonotic events	Jan. 2019	++	+++	DoPH/RCDC (Lead), DoL, DoFPS	Joint web-based information system developed
4.E. Indent and procure laboratory equipment and consumables in 20 Dzongkhags	Sep. 2019	++	+++	DoL (Lead), DOPH/RCDC	Type and number of equipment and consumables procured
4.F. Carry out surveillance on priority zoonotic diseases at human-animal-wildlife interface	Oct. 2019- Sep. 2023	+++	++	DoL (Lead), DoPH/RCDC, DMS, DoFPS	Number of samples collected and tested for each disease
4.G. Compute and analyze surveillance data and disseminate information	Oct. 2019- Sep. 2023	+	++	DoL (Lead), DoPH/RCDC, DMS, DoFPS	Surveillance reports published

Objective 5: Institutionalize risk analysis as a basis for decision making

5.A. Conduct a joint risk analysis training on zoonotic diseases and food safety to staffs (from DoL/BAFRA/DMS/DoFPS) at regional and Dzongkhag level	Jan. 2019, Feb. 2020	+++	++	DoL (Lead), BAFRA, DoPH/RCDC, DMS, DoFPS	No. of trainings conducted No. of staff trained
5.B. Carry out annual joint risk assessment for prioritized zoonotic diseases and food safety issues	Feb. 2019- Feb. 2023	++	++	DoPH/RCDC (Lead), DoL, BAFRA, DMS, DoFPS	No. of risk assessment reports No. of decisions made based on risk assessment

Objective 6: Enhance safety of food of animal origin

6.A. Conduct a workshop to prioritize food commodity based on food safety risk and develop action plan	Dec. 2018	++	+++	BAFRA (Lead), DoL, DoPH/RCDC	Workshop conducted and action plan developed
6.B. Conduct workshop to develop guidelines and SOPs on prioritized food commodities	Feb. 2019	++	+++	BAFRA (Lead), DoL, DoPH/RCDC	Joint guidelines and SOPs developed
6.C. Conduct training to field staff (Vet, Paravet) on food borne diseases surveillance/inspection	Mar. 2019	++	++	BAFRA (Lead), DoL, DoPH/RCDC	No. of training conducted No. of staff trained

6.D. Conduct an awareness program to relevant stakeholders (BAFRA, Private sector/Importers) on safety of food of animal origin	Apr. 2019	++	++	BAFRA	Awareness program conducted
6.E. Indent and procure laboratory equipment and consumables in 20 Dzongkhags	Sep. 2019	+++	+++	BAFRA	Type and No. of equipment and consumables procured
6.F. Carry out surveillance and testing of residue of food of animal origin	Oct. 2019	++	++	BAFRA	No. of samples collected and tested
6.G. Compute and analyze surveillance data and disseminate information	Oct. 2019-Sep. 2023	+	++	BAFRA	Reports published

COMMUNICATION WITH MEDIA

Objective 7: Establish an efficient network for joint risk communication

7.A. Develop communication guidelines and SOPs for risk communication	Jun. 2019	+	++	MoH, DoL, BAFRA, NCD	Guidelines and SOPs developed and endorsed
7.B. Develop TORs for media focal person at national and local level	Feb. 2019	+	+++	MOH, DOL, BAFRA, NCD	ToRs developed and endorsed
7.C. Identify focal points for BAFRA (20), DoL (20) and MOH (20) at district level	Mar. 2019	+	++	DoL, Emergency medical services division, BAFRA	Focal person identified and appointed
7.D. Conduct training of trainers to focal points (60) on risk communication	Jun. 2019	++	+++	MOH, DoL, BAFRA	No. of focal points trained
7.E. Training of animal health and human health workers in the districts by focal points on risk communication	Dec. 2019	++	+++	Focal points of the sector concerned in the district. Lead: MOH	No. of staff trained on risk communication in all the districts.

Objective 8: Improve effectiveness of communication tools

8.A. Develop, pre-test and finalize information communication and education materials for policy makers and general public on specific notifiable zoonotic diseases.	Jan. 2020	++	+++	MoH, DoL, BAFRA	No. of leaflets printed and distributed
8.B. Optimize the help line numbers (124 DoL, 112 MOH, 155 BAFRA) on risk communication or develop universal helpline	Jan. 2019	++	+++	MOH, DOL, BAFRA	No. of SMS or calls sent to the help line numbers
8.C. Public awareness on the optimized help line numbers	Mar. 2019	+	+++	Concerned agencies	No. of SMS or calls sent to the help line numbers

FIELD INVESTIGATION & RESPONSE

Objective 9: Strengthen the capacity for joint field outbreak investigation and response

9.A. Conduct key stakeholder training on the joint field outbreak investigation and response	Jun. 2018, Jan. 2019, Jan. 2020	+	++	One Health Secretariat (Lead), MOAF, MOH	No. of trainings conducted, No. of staff trained
9.B. Establish in-country joint field epidemiology training program (FETP)	Dec. 2019	++	++	KGUMSB & RUB (Lead), NCAH	Curriculum in place No. of cohorts trained
9.C. Conduct biennial joint simulation exercise for disease outbreak management	Mar. 2019	+	+++	MOAF & MoH (Lead), BAFRA, OHS	No. of simulation exercise conducted & report produced

Objective 10: Enhance coordinated approach to field investigation and response by developing adequate enabling instruments

10.A. Review the Bhutan Health bill to ensure requirements of the public health emergency measures are captured using OH approach	Dec. 2018	+	+++	MOH (Lead)	Clauses on PH emergency measures are reviewed
10.B. Drafting of regulation of public health emergency under the purview of Bhutan health act	Dec. 2020	++	+++	MOH (Lead)	Rules and regulation documented
10.C. Designate FPs from each sector and sign MoU for responding to deliberate introduction of biological or chemical threats	Jun. 2019	+	++	MOAF (DoL) & MOH (Lead), RBP, RBA, NEC, BAFRA,	MoU signed and contact focal points identified
10.D. Develop guidelines and SOPs on outbreak investigation and response to deliberate introduction of biological or chemical threats	Dec. 2020	++	+	DoPH (Lead), DDM	Guidelines and SOPs on developed

HUMAN RESOURCES & EDUCATION

Objective 11: Enhance diagnostic capacity for animal and human health laboratory personnel

11.A. Conduct a joint training on diagnosis of high impact zoonotic diseases for laboratory personnel.	Annually by 2020	+	++	RCDC (Lead), NCAH	No. of trainings conducted No. of staff trained
11.B. Conduct post training evaluation of trained laboratory personnel on laboratory diagnosis	End of 2020	+	++	RCDC (Lead), NCAH	No. of evaluations conducted

Objective 12: Strengthen the epidemiological capacity of human, wildlife and animal health professionals

12.A. Develop a curriculum for One Health Epidemiology Training Program (Short course for 1-3 months)	Dec. 2019	++	+++	RUB (Lead), KGUMSB (Lead), NCAH, DoPH, DoF	Curriculum developed
12.B. Conduct TOT on FETP for the faculty (Ex Country)	Dec. 2019	+	++	DoPH (Lead), DOL, RUB, KGUMSB	No. of faculty trained (4)
12.C. Conduct FETP Training program for Animal, Human health and Department of Forest (cohorts of 20 trainees)	Jul. 2020	++	+++	RUB (Lead), KGUMSB-(Lead), NCAH	No. of trainees trained
12.D. Conduct evaluation of trained FETP & review curriculum	Dec. 2020	++	++	RUB (Lead), KGUMSB-(Lead), NCAH	-Evaluation report -Revised curriculum
12.E. Enhance capacity building of HR by providing Masters and PHD programs for staffs of different fields: Epidemiology, Laboratory diagnosis & Food safety	By End of 12th FYP	+++	+++	MoH, MoAF, other relevant agencies	No. of Master & PHD students graduated

Objective 13: Upgrade knowledge & skill on bio-security, bio-safety and food security

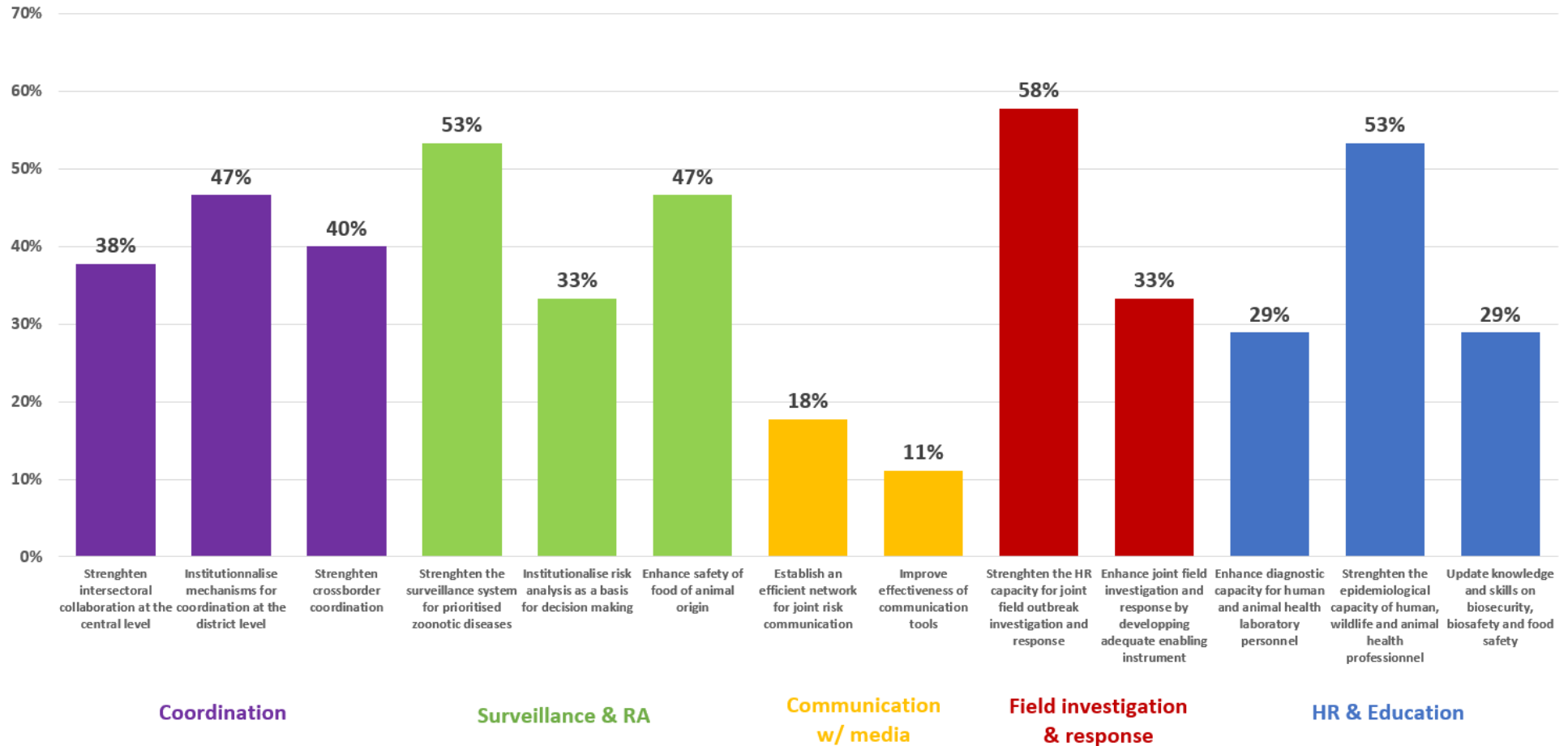
13.A. Conduct a joint Training on bio-security and bio-safety for BAFRA, Health, DOL and Wildlife	Annually by 2019	+	++	BAFRA	No. of trainings conducted No. of staff trained
13.B. Conduct training on food safety for participants from BAFRA, Health & Livestock	2019	+	+++	BAFRA	No. of trainings conducted No. of staff trained
13.C. Recruit Veterinarians for BAFRA	End Of 12th FYP	+++	+++	BAFRA, RCSC	No. of Veterinarians recruited

Difficulty of implementation: Low +, Moderate ++, Very difficult +++

Impact: Low impact +, Moderate impact ++, High impact +++

OUTPUT 3: PRIORITIZATION RESULTS

All participants were asked to vote individually via a mobile application and to select which five of the 13 objectives they considered as of highest priority. 44 participants participated in the vote. The objective with the least score, Objective 8, is considered a top priority by 11.5% of participants despite several biases, showing that all objectives identified in the workshop are important and none should be neglected.



OUTPUT 4: LINKAGES WITH BHUTAN'S ONE HEALTH STRATEGIC PLAN (BOHSP)

Action	The road-map actions are linked to the following BOHSP components:		
	BOHSP Strategy	BOHSP Output	BOHSP Activity
COORDINATION			
Objective 1: Strengthen intersectoral collaboration at central level			
1.A. Establish and operationalize one health secretariat	1	1.1. Details of structures and terms of reference (ToR) for committees at each level are in place	1.1.1. Printing of Bhutan One Health Strategic Plan for implementation and coordination for One Health
1.B. Conduct one health workshop annually led by MoH & MoAF on alternate basis	5	5.4. Results of researches are published, and appropriate advocacy and communication messages are disseminated to stakeholders	5.4.4. Conduct annual OH national conferences/seminars
1.C. Conduct consultative meeting with relevant stakeholders (private sector, farmer's group, etc.) for introducing new AH policies & new disease control plans.	1	1.5. Communication and information exchange mechanisms formalized	1.5.2. Sensitize stakeholders on information exchange protocol
Objective 2: Institutionalize mechanism for coordination at the district level			
2.A. Conduct technical coordination workshop amongst the key stakeholder at the field level annually	1	1.2. Institutional arrangements are in place to enable coordination on the One Health approach in Bhutan	1.2.3. Form Expert Technical Working Group & 1.2.4. Form Expert Team within respective sectors
2.B. Develop SOPs for formal coordination between relevant stakeholders for zoonosis at local level by first year of 12th FYP	1	1.1. Details of structures and terms of reference (ToR) for committees at each level are in place	1.1.2. Develop and print terms of reference for committees and stakeholders
2.C. Engage livestock owners & private sector during disease containment programs of priority diseases for effective disease control	3	3.1. Disease outbreak control and prevention strategies for prioritized zoonotic diseases developed and communicated to stakeholders	3.1.2. Sensitize stakeholders on the strategy
Objective 3: Strengthen cross-border coordination			
3.A. Advocate for inclusion of transboundary animal diseases and public health issues in the existing border harmonization meeting between India and Bhutan	1	1.3. Memorandum of Understanding (MoU) signed between the key stakeholders	1.3.1. Develop and sign MoU

3.B. Dzongkhag Livestock Sector and Dzongkhag Health sector to jointly coordinate border harmonization meeting between relevant stakeholders in Bhutan and India.	1	1.4. Planning, monitoring and evaluation mechanisms for One Health activities in place	1.4.3. Conduct consultative workshops to disseminate work plan and M & E
SURVEILLANCE & RISK ANALYSIS			
Objective 4: Strengthen the surveillance system for prioritized zoonotic diseases			
4.A. Conduct a workshop to revisit the prioritized zoonotic diseases and to develop a surveillance plan	2	2.1. Emerging and re-emerging diseases for surveillance prioritized & 2.2. Joint surveillance system developed	2.1.1. Develop a list of priority diseases for surveillance & 2.2.1. Develop protocol for disease surveillance
4.B. Conduct a workshop to develop joint guidelines and SOPs for prioritized zoonotic disease	2	2.2. Joint surveillance system developed & 2.3. Standard operating procedures (SOPs) for surveillance and outbreak investigation developed	2.2.1. Develop protocol for disease surveillance & 2.3.1. Develop SOPs for surveillance and outbreak investigation
4.C. Conduct a training for relevant field staff at regional or Dzongkhag level (DoL/BAFRA/DOFPS/DMS) on disease surveillance strategy	2	2.4. Surveillance capacities in all relevant sectors and at all levels strengthened	2.4.2. Conduct trainings on surveillance
4.D. Develop and integrate joint real time web based and SMS information system for zoonotic events	2	2.5. Bhutan One Health Hub to share surveillance data, outbreak investigation data and research operationalized	2.5.1. Develop integrated One Health disease surveillance and outbreak information sharing platform
4.E. Indent and procure laboratory equipment and consumables in 20 Dzongkhags	2	2.6. Appropriate lab diagnostic facilities in all sectors to support surveillance activities strengthened	2.6.2. Procure necessary surveillance equipment
4.F. Carry out surveillance on priority zoonotic diseases at human-animal-wildlife interface	2	2.7. High-risk areas and disease hotspots mapped	2.7.1. Map out high-risk areas and disease hotspots
4.G. Compute and analyze surveillance data and disseminate information	2	2.7. High-risk areas and disease hotspots mapped	2.7.1. Map out high-risk areas and disease hotspots
Objective 5: Institutionalize risk analysis as a basis for decision making			
5.A. Conduct a joint risk analysis training on zoonotic diseases and food safety to staffs (from DoL/BAFRA/DMS/DoFPS) at regional and Dzongkhag level	4	4.2. Plans and modalities for cross-sectoral capacity building developed	4.2.1. Develop joint training plan based on gaps identified
5.B. Carry out annual joint risk assessment for prioritized zoonotic diseases and food safety issues	4	4.2. Plans and modalities for cross-sectoral capacity building developed	4.2.1. Develop joint training plan based on gaps identified

Objective 6: Enhance safety of food of animal origin			
6.A. Conduct a workshop to prioritize food commodity based on food safety risk and develop action plan	2	2.2. Joint surveillance system developed	2.2.1. Develop protocol for disease surveillance
6.B. Conduct workshop to develop guidelines and SOPs on prioritized food commodities	3	3.2. SOPs and contingency plans for management of disease outbreaks developed	3.2.2. Develop disease specific SOPs
6.C. Conduct training to field staff (Vet, Paravet) on food borne diseases surveillance/inspection	2	2.4. Surveillance capacities in all relevant sectors and at all levels strengthened	2.4.2. Conduct trainings on surveillance
6.D. Conduct an awareness program to relevant stakeholders (BAFRA, Private sector/Importers) on safety of food of animal origin	3	3.1. Disease outbreak control and prevention strategies for prioritized zoonotic diseases developed and communicated to stakeholders	3.1.2. Sensitize stakeholders on the strategy
6.E. Indent and procure laboratory equipment and consumables in 20 Dzongkhags	2	2.6. Appropriate lab diagnostic facilities in all sectors to support surveillance activities strengthened	2.6.2. Procure necessary surveillance equipment
6.F. Carry out surveillance and testing of residue of food of animal origin	2	2.7. High-risk areas and disease hotspots mapped	2.7.1. Map out high-risk areas and disease hotspots
6.G. Compute and analyze surveillance data and disseminate information	2	2.7. High-risk areas and disease hotspots mapped	2.7.1. Map out high-risk areas and disease hotspots
COMMUNICATION WITH MEDIA			
Objective 7: Establish an efficient network for joint risk communication			
7.A. Develop communication guidelines and SOPs for risk communication	6	6.1. Communication and advocacy modalities for OH approach institutionalized	6.1.1. Develop a framework for communication & advocacy on OH
7.B. Develop TORs for media focal person at national and local level	6	6.1. Communication and advocacy modalities for OH approach institutionalized	6.1.1. Develop a framework for communication & advocacy on OH
7.C. Identify focal points for BAFRA (20), DoL (20) and MOH (20) at district level	6	6.1. Communication and advocacy modalities for OH approach institutionalized	6.1.2. Identify focal points for One Health communication & advocacy
7.D. Conduct training of trainers to focal points (60) on risk communication	6	6.3. Knowledge and skills on communication and advocacy strengthened	6.3.1. Training on communication skills
7.E. Training of animal health and human health workers in the districts by focal points on risk communication	6	6.3. Knowledge and skills on communication and advocacy strengthened	6.3.1. Training on communication skills
Objective 8: Improve effectiveness of communication tools			

8.A. Develop, pre-test and finalize information communication and education materials for policy makers and general public on specific notifiable zoonotic diseases.	6	6.1. Communication and advocacy modalities for OH approach institutionalized	6.1.3. Develop communication materials on One Health
8.B. Optimize the help line numbers (124 DoL, 112 MOH, 155 BAFRA) on risk communication or develop universal helpline	6	6.1. Communication and advocacy modalities for OH approach institutionalized	6.1.1. Develop a framework for communication & advocacy on OH
8.C. Public awareness on the optimized help line numbers	6	6.2. Holistic behavioural changes brought about in line with OH approach for cost effective, sustainable, and long-term control strategies are developed for prioritized diseases	6.2.1. Conduct awareness campaign on OH
FIELD INVESTIGATION & RESPONSE			
Objective 9: Strengthen the capacity for joint field outbreak investigation and response			
9.A. Conduct key stakeholder training on the joint field outbreak investigation and response	3	3.3. Capacity for field response to disease outbreaks strengthened	3.3.3. Conduct training for field staffs
9.B. Establish in-country joint field epidemiology training program (FETP)	3	3.3. Capacity for field response to disease outbreaks strengthened	3.3.1. Develop training module for disease outbreak response
9.C. Conduct biennial joint simulation exercise for disease outbreak management	3	3.4. Simulation exercise on preparedness, response and management of priority diseases conducted as and when required	3.4.1. Develop protocol for simulation & 3.4.2. Conduct simulations
Objective 10: Enhance coordinated approach to field investigation and response by developing adequate enabling instruments			
10.A. Review the Bhutan Health bill to ensure requirements of the public health emergency measures are captured using OH approach	3	3.1. Disease outbreak control and prevention strategies for prioritized zoonotic diseases developed and communicated to stakeholders	3.1.1. Develop strategy for prevention and control of prioritized diseases
10.B. Drafting of regulation of public health emergency under the purview of Bhutan health act	3	3.1. Disease outbreak control and prevention strategies for prioritized zoonotic diseases developed and communicated to stakeholders	3.1.1. Develop strategy for prevention and control of prioritized diseases
10.C. Designate FPs from each sector and sign MoU for responding to deliberate introduction of biological or chemical threats	3	3.1. Disease outbreak control and prevention strategies for prioritized zoonotic diseases developed and communicated to stakeholders	3.1.1. Develop strategy for prevention and control of prioritized diseases
10.D. Develop guidelines and SOPs on outbreak investigation and response to deliberate introduction of biological or chemical threats	3	3.2. SOPs and contingency plans for management of disease outbreaks developed	3.2.1 Review and develop contingency plan for disease outbreak management for priority diseases (2 diseases in 5 years)

HUMAN RESOURCES & EDUCATION

Objective 11: Enhance diagnostic capacity for animal and human health laboratory personnel

11.A. Conduct a joint training on diagnosis of high impact zoonotic diseases for laboratory personnel.	4	4.4. A common laboratory (BSL-2 Plus) with advanced facilities like virus isolation, cell culture and bioinformatics instituted and run by scientists from all relevant sectors	4.4.3. Training of laboratory staff of health and veterinary (30 per year)
11.B. Conduct post training evaluation of trained laboratory personnel on laboratory diagnosis	4	4.5. Monitoring and evaluation of the trainings conducted	4.5.1. Conduct M & E periodically

Objective 12: Strengthen the epidemiological capacity of human, wildlife and animal health professionals

12.A. Develop a curriculum for One Health Epidemiology Training Program (Short course for 1-3 months)	4	4.2. Plans and modalities for cross-sectoral capacity building developed	4.2.1. Develop joint training plan based on gaps identified
12.B. Conduct TOT on FETP for the faculty (Ex Country)	4	4.2. Plans and modalities for cross-sectoral capacity building developed	4.2.1. Develop joint training plan based on gaps identified
12.C. Conduct FETP Training program for Animal, Human health and Department of Forest (cohorts of 20 trainees)	4	4.2. Plans and modalities for cross-sectoral capacity building developed	4.2.1. Develop joint training plan based on gaps identified
12.D. Conduct evaluation of trained FETP & review curriculum	4	4.5. Monitoring and evaluation of the trainings conducted	4.5.1. Conduct M & E periodically
12.E. Enhance capacity building of HR by providing Masters and PHD programs for staffs of different fields: Epidemiology, Laboratory diagnosis & Food safety	4	4.1. Capacity gaps assessed and human resources mapped	4.1.1. Assess human resource capacity within the sectors

Objective 13: Upgrade knowledge & skill on bio-security, bio-safety and food security

13.A. Conduct a joint Training on bio-security and bio-safety for BAFRA, Health, DOL and Wildlife	4	4.2. Plans and modalities for cross-sectoral capacity building developed	4.2.1. Develop joint training plan based on gaps identified
13.B. Conduct training on food safety for participants from BAFRA, Health & Livestock	4	4.2. Plans and modalities for cross-sectoral capacity building developed	4.2.1. Develop joint training plan based on gaps identified
13.C. Recruit Veterinarians for BAFRA	4	4.1. Capacity gaps assessed and human resources mapped	4.1.1. Assess human resource capacity within the sectors

WORKSHOP EVALUATION

An evaluation questionnaire was completed by 38 participants in order to collect feedback on the relevance and utility of the workshop. Participants rated the workshop highly, with 100% of them being “highly satisfied”, or “satisfied with the content, the structure and the facilitators (Tables 2-5).

Tables 2-5: Results of the evaluation of the event by participants (38 respondents)

Workshop evaluation	'Satisfied' or 'Fully satisfied'	Average score (/4)
Overall assessment	100%	3,4
Content	100%	3,4
Structure / Format	100%	3,8
Facilitators	100%	3,8
Organization (venue, logistics, ...)	95%	3,3

Participants had to choose between 1=Highly unsatisfied – 2=Unsatisfied – 3=Satisfied – 4=Highly satisfied

Impact of the workshop on...	'Significant' or 'Major'	Average score (/4)
Your technical skills / knowledge	95%	3,1
The work of your unit/department	92%	3,0
The intersectoral collaboration in Tanzania	92%	3,3

Participants had to choose between 1=No impact at all – 2=Minor impact – 3=Significant impact – 4=Major impact

Average score for each session (/4)						
Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7
3.6	3.3	3.5	3.5	3.5	3.5	3.4

Would you recommend this workshop to other countries?	
Absolutely	86%
Most likely	14%
Likely not	0%
No	0%

APPENDIX

ANNEX 1: WORKSHOP AGENDA

DAY 1	
08:30 – 09:00	Registration of participants
09:00 – 10:00	<p><u>Opening Ceremony</u></p> <ul style="list-style-type: none"> • Welcome Address – Dr. Tashi Samdup, Director General, DOL, MOAF • Address by WHO – Dr. Stella Chungong, WHO Head Quarter, Geneva • Address by OIE – Dr. Caitlin Holley, OIE Tokyo • Opening address by the Chief Guest – H.E. Lyonpo Yeshe Dorji, Hon’ble Minister of Ministry of Agriculture and Forests • Vote of thanks – Mr. Jamtsho, National IHR Focal Point, DMS, MOH • Group Picture
	<u>Tea Break</u>
10:30 – 12:30	<p><u>Session 1: Workshop Objectives and National Perspectives</u></p> <ul style="list-style-type: none"> • Introduction of participants • Tripartite One Health collaboration and vision– Dr. Gongal, SEARO (15 minutes) • Overview of IHR Monitoring and Evaluation Framework – Dr. Stella, WHO HQ (10 minutes) • Veterinary Services and One Health – Dr. Karma Rinzin, DOL, MOAF (10 minutes) • Public Health Services and One Health– Mr. Jamtsho, DMS, MOH (10 minutes) • One Health Strategy Plan – Dr. Kinzang Dukpa, NCAH, Serbithang (10 minutes) • Workshop approach and methodology– Dr. Belot, WHO HQ (10 minutes) • MOVIE 1: Driving successful interactions - Movie (25 minutes)
Lunch (12:30-13:30)	
13:30 – 17:00	<p><u>Session 2: Navigating the road to One Health</u></p> <ul style="list-style-type: none"> • Presentation and organization of the working group exercise – PPT (15 minutes) • Case study - Working groups by disease (120 minutes) • Restitution (75 minutes) <p>Tea will be served during the group work session</p>
DAY 2	
09:00 – 9:10	Feedback from day 1
09:10 – 12:00	<p><u>Session 3: Bridges along the road to One Health</u></p> <ul style="list-style-type: none"> • MOVIE 2: IHR Monitoring and Evaluation Framework (25 minutes) • Presentation on result of JEE in Bhutan – Mr. Jamtsho, IHR Focal Point, MOH (10 minutes) • MOVIE 3: PVS Pathway (25 minutes) • Presentation on result of PVS in Bhutan – Dr. Karma Rinzin, CVO, AHD, DOL (10 minutes)

	Tea Break
	<p><u>Session 3: Bridges along the road to One Health (continued)</u></p> <ul style="list-style-type: none"> • MOVIE 4: IHR-PVS Bridging (10 minutes) • Mapping gaps on the IHR/PVS matrix (45 minutes) • Discussion– Plenary (30 minutes)
12:00 - 13:00	<p><u>Session 4: Crossroads - IHR MEF, JEE and PVS Pathway reports</u></p> <ul style="list-style-type: none"> • Presentation and organization of the working group exercise (15 minutes) • Extract main gaps and recommendations from the PVS and IHR reports (including the JEE), in relation to gaps identified on the matrix (45')
Lunch (13:00-14:00)	
14:00 - 15:00	<p><u>Session 4 (continued)</u></p> <ul style="list-style-type: none"> • Extract main gaps and recommendations from the PVS and IHR reports (including the JEE), in relation to gaps identified on the matrix(continued, 60 minutes)
15:00 - 17:15	<p><u>Session 5: Road planning</u></p> <ul style="list-style-type: none"> • Presentation and organization of the working group exercise (15 minutes) • Objectives and Activities (Working groups by technical topic) (120 minutes) <p>Tea will be served during the group work session</p>

DAY 3	
09:00 - 9:10	Feedback from day 2
9:10 - 12:30	<p><u>Session 6: Fine-tuning the roadmap</u></p> <ul style="list-style-type: none"> • World Café (90 minutes)
	<p>Tea Break</p> <ul style="list-style-type: none"> • Plenary discussion on the Roadmap (60 minutes) • Presentation of the prioritization vote (10 minutes) • Prioritization vote (60 minutes – during lunchtime)
Lunch (12:30-13:30)	
13:30 -	<p><u>Session 7: Way forward</u></p> <ul style="list-style-type: none"> • In Results of the prioritization vote (15 minutes) • Integrating the action points into the IHR-MEF process (30 minutes) • Next steps (75 minutes) (lead by Ministry representatives)
15:30 -	<p><u>Closing Session</u></p> <ul style="list-style-type: none"> • Evaluation of the workshop (20 minutes) • Closing ceremony (40 minutes) <ul style="list-style-type: none"> ○ Remarks from OIE ○ Remarks from WHO ○ Remarks from RGOB

ANNEX 2: LIST OF PARTICIPANTS

National Participants			
Name	Designation	Agency	Email
Tashi Dorji	Sr. HA	Paro Airport	tashidorji34@yahoo.com
Dr Yoenten Phuntshok	Vet Officer	National Center for Animal Health (NCAH), Serbithang, Thimphu	vetyoen@gmail.com
Dawa Dem	Asst. Manager	Paro International Airport	ddem@doat.gov.bt
Dr Tshering Dorji	Vet. Officer	DoL, Paro	tsheringdorjilalor@gmail.com
Karma Norbu	Health Assistant	Paro International Airport	Karmanorbu777@gmail.com
Dr Ratna Gurung	Chief Vet. Officer	NCAH, Thimphu	Rgur1038@uni.sydneyedu.au
Dr Kinzang Dukpa	Program Director	NCAH, Serbithang	kinduk2009@gmail.com
Dr Rinzin Pem	Vet Officer	DoL, Thimphu	rinzypem@gmail.com
Jamtsho	Chief program Officer	Emergency Medical Services Division, Ministry of Health	jamtsho@health.gov.bt
Karma Wangdi	Program Officer	Occupational Health Program, MoH	kwangdi@health.gov.bt
Dr Chempay	Medical Officer	Eastern Regional Referral Hospital, Mongar	Chempay700@gmail.com
Kunga Tshering	Lecturer	College for Natural Sciences, Lobesa	kuenga@cnr.edu.bt
Dr Kinley Penjor	Chief Medical Officer	Dewathang Hospital	kinleyp@health.govt.bt
Dr Meena Das Surat	Sr. Vet Officer	NCAH, Serbithang	meenasrat@gmail.com
Dr Dema Yangzom	Vet. Officer	District Vet Hospital, Wangdue	norfel407@gmail.com
Dr Norbu Doelma	Vet Officer	DVH	ddoelma@chukha.gov.bt
Dr Sonam Peldon	Sr. Vet Officer	Thimphu	speldon@thimphu.gov.bt
Kinley Penjor	Sr. Regulatory Quarantine officer	Thimphu	kinleypenjor26@gmail.com
Dr Jigdrel Dorji	Lecturer	College of Natural Sciences, Lobesa	jigddorjiks@gmail.com
Dr Kunznag Gyeltshen	Sr. Regulatory Quarantine Officer	Phuentsholing	kuenzang@moaf.gov.bt
Kinley Rabgay		RQO/BAFRA, Gelephu	kinley@moaf.gov.bt
Tshering Yangchen		SLRS, Timphu	Tsheringyancgmail.com
Dr Sonam Chopel	Vet Officer	DVH, Dagana	chophel@dagana.gov.bt
Tshewang Gampo	Sr. Vet Officer	Gelephu	Tshewang-gampo@yahoo.com
Pema Wangchuk	Sr. Vet Officer	Zhemgang	nogtangwanchu@gmail.com
Narayan Pokhrel	Sr. Vet Officer	P/Gatshel	Pokhrel-707@yahoo.com
Rinzin Lodey	Vet Officer	Sarpang	Rinzinlodayvet286@gmail.com
Jigme Thinley	Vet Officer	Haa	Thinleyvet20@gmail.com

Dr Chencho Dorji	Sr. Vet Officer	HDC Tshimasham	dorjinet@gmail.com
Jigme	Regulatory Quarantine Officer	Haa	geemed@gmail.com
Dr Kipchu Tshering	Lecturer	Khesar Gyalpo University of Medical Sciences of Bhutan	Kipps009@gmail.com
Kinley Rinchen	DLO	Paro	krinchen@paro.gov.bt
Sangay Wangdi	Asst. Program Officer	Emergency Medical Services Division, MoH	sangayw@health.gov.bt
Tsheten	Sr. Laboratory Officer	Royal Center for Disease Control, Thimphu	tsheten@health.gov.bt
Dr Karma Wangdi	Vet. Officer	DoL, Thimphu	Karma-wangdi600@gmail.com
Dr Tapas Gurung	Medical Superintendent	Central Regional Referral Hospital, Gelephu	tapasgurung@health.gov.bt
Dr Pradhan	Sr. Medical Officer	Jigme Dorji Wangchuk National Referral Hospital, Thimphu	abipradhanbhutan@gmail.com
Gyem Bidha	Dy. Chief Food Safety Officer	BAFRA Thimphu	gbidha@moaf.gov.bt
Sonam Yangchen	Planning Officer	PPD, MoH Thimphu	syangchen@health.gov.bt
Sonam Phuntsho	Planning Officer	PPD, MoH, Thimphu	sphuntsho@health.gov.bt
Dr Jigme Wangchuk	Sr. Vet Officer	Mongar	Gmee08@gmail.com
Dr Chimi Jamtsho	Sr. Vet Officer	T/Yangtse	chimijamtsho@yahoo.com
Dr Karma Phuntsho	Sr. Vet Officer	Ngalam, SVL	karma@moas.gov.bt
Dr Sithar Dorjee	Director	Khesar Gyalpo University for Medical Sciences of Bhutan, Thimphu	sdorji@kgumsb.edu.bt
Dr Chencho Dorjee	Dean	FNPH, Thimphu	dean@fnph.edu.bt
Dr Tashi Tobgay	Director	KGUMSB, Thimphu	Tobgayla2000@gmail.com
Tashi Minjur		WHO, Thimphu	minjurt@who.int
Kencho Wangdi		WHO, Thimphu	wangdik@who.int
Dr Jamyang Choden	Program Officer	Emergency Medical Sciences of Bhutan, MoH	Tobgayla2000@gmail.com
Dr Karma Lhazeen	Director General	DoPH, MoH, Thimphu	klhazeen@health.gov.bt
Dr. Tandin Zangpo	Medical Officer	Dechencholing BHU, Thimphu	zheyuapa@gmail.com
Dr Tashi Samdrup	Director General,	DoL, Thimphu	Tashi-samdrup2001@gmail.com
Sangay Chezom	Reporter	Bhutan Broadcasting Services, Paro	sangaychezom@bbs.bt
Kinzang Wangdi	Reporter	Bhutan Broadcasting Service Paro	kinzangwangdi@bbs.bt
Rinzin Dorji		MoH, Thimphu	dorjirinzin@gmail.com
Pema Wangdi		NCAH, Thimphu	Pwdi83@yahoo.com
Passang		DoL ,Thimphu	
Dr Kezang Dorji	Sr. Medical Officer	S/Jongkhar Hospital	Keza555@hotmail.com
Jigme		RQO, Haa	geemeed@gmail.com

Dr Karma Rinzin	Chief Vet Officer	DoL	rinzin@gmail.com
Karma Chendup	Asst. District Officer	Paro Dzongkhag	kchendup@paro.gov.bt

International Participants			
Name	Designation	Agency	Email
Dr Stella Chungong	Chief of Unit	WHO HQ, Geneva	chungongs@who.int
Dr Stephane de la Rocque	Technical Adviser	WHO HQ, Geneva	delarocques@who.int
Dr Gyanendra Gongal	Technical Officer (PCB)	WHO SEARO, New Delhi	gongalg@who.int
Dr Guillaume Belot	Technical Officer	WHO HQ, Geneva	belotg@who.int
Dr Caitlin Holley	Regional Veterinary Officer	OIE RRAP, Tokyo	c.holley@oie.int
Dr Pennapa Matayompong	Programme Coordinator	OIE SRR SEA, Bangkok	p.matayompong@oie.int
Dr John Woodford	OIE PVS expert	France	jdwoodford@gmail.com

