

# Leveraging PVS Gap Analysis to Support Veterinary Service Capacity in East Africa

Final Project Report

APRIL 2019 - JUNE 2023





<b>Final Project Report</b> <b>Leveraging PVS Gap Analysis to support Veterinary Service capacity</b>  APRIL 2019 - JUNE 2023  Bill & Melinda Gates Foundation Livestock Team	<b>Project Title</b> Leveraging PVS Gap Analysis to support Veterinary Service capacity  <b>Sponsoring BMGF Program</b> Livestock/Agriculture Development Team  <b>Award Number</b> CON000000079220  <b>Award Recipient</b> Center for Animal Health and Food Safety (CAHFS) the University of Minnesota  <b>Date of Publication</b> August 2023
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This report was produced for the Bill & Melinda Gates Foundation by the CAHFS team headquartered at the University of Minnesota. This publication presents the findings from the evaluation and monitoring activities performed throughout the program life cycle. The authors’ views expressed in this publication do not necessarily reflect the views of the BMGF.

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ProgRESSVet participant working with the community in a public health sensitization event - Photo provided by: Dr. Jesse Mukisa Bryt



# Letter from the Director



Feeding the planet responsibly is one of the most important challenges facing humankind today. By the year 2050, the world population will reach 9 billion, with a consequent increase in food demand and nutritional needs. While producing food is essential, a more inclusive model for the movement of crops, animals, and animal products will be vital for simultaneously ensuring that a greater diversity of nations benefits from the economic stability and opportunity of international and regional trade.

The complexity of this system is staggering, and it will require innovation. We need to abandon practices that are inefficient for equitably and sufficiently feeding the population and ineffective in connecting communities to significant, sustainable opportunities for growth, development, and participation in global markets.

In short, we need a systems approach to solve systems challenges. We need to adopt “business not as usual” practices to make progress. These two tenets have become hallmarks of the work that we do in the Center for Animal Health and Food Safety (CAHFS) at the University of Minnesota, both locally and internationally. They have also been guiding mantras for *Leveraging PVS Gap Analysis to Support Veterinary Service capacity*, which is described in this report.

When we first proposed launching an eLearning program in the East African region, we encountered significant skepticism, including from people that we trusted. We are grateful that we were able to make our case to the Bill & Melinda Gates Foundation and that they funded our proposal—even before the global shift to online activities during the COVID-19 pandemic.

Despite that challenge and many more facing our participants, this program now stands as one of CAHFS’ most successful capacity-building programs to date, largely because it has connected CAHFS with an incredible group of colleagues in East Africa. It is our hope that this report adequately showcases the accomplishments of the 74 learners who persisted through their ProgRESSVet East Africa training and are now actively working to be the systems change makers that current times demand.

The CAHFS mission is to “partner to promote a safe and secure food supply while protecting the health and well-being of animals, humans, and the environment.” In the case of ProgRESSVet East Africa, the role of our partners cannot be overstated.

It has been our great privilege to deepen relationships with colleagues from Makerere University, Uganda’s Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), the Directorate of Veterinary Services of Kenya, and the Kenya Women’s Veterinary Association (KWVA) as our leading partners in this effort. Throughout the project, we benefited from the support of the Uganda Veterinary Board, the Uganda Veterinary Association, and the Kenya Veterinary Board.

Through the committed efforts of all noted here, we are now better equipped to support practitioners and livestock producers worldwide in creating more secure and safe food systems. We look forward to the ongoing work we can do together toward that end.

A handwritten signature in black ink, appearing to read "Andrés Perez".

**Dr. Andrés Perez, DVM PhD**  
Principal Investigator  
Director - Center for Animal Health and Food Safety  
Professor - Department of Veterinary Population Medicine  
University of Minnesota College of Veterinary Medicine



# Project Overview - Building a System Thinking Approach



1st ProgRESSVet Symposium Award - Dr. Anne Olang'o  
Photo provided by: Denis Enywaru

> The primary goal of ProgRESSVet is to improve local, national, and regional practices for animal health and food safety, to subsequently promote access to international trade markets for sustainable local development. The program carries a secondary objective of familiarizing members of the veterinary services with key stakeholders at all levels of the animal health system, and their varying roles and responsibilities, to enhance understanding of the system itself and, most importantly, to help realize the potential impact that individuals and organizations can have to work effectively within and improve the system at local level.

This report details ProgRESSVet East Africa, implemented in Kenya and Uganda from 2019-2023 as the BMGF-funded project *Leveraging PVS Gap Analysis to support Veterinary Service capacity*, in which 74 participants were trained and equipped with skills to develop proposals to fund evidence-based ideas for improving animal health and food safety, in line with national priorities and as highlighted in areas of need in the World Organization for Animal Health Performance of Veterinary Services evaluation process.

A key feature of this report is titled “Model Validation: Building A Systems Thinking Approach”, in which we attempt to bring forth key evidence to address the following questions:



ProgRESSVet participant (Cohort 1 Kenya) during the first workshop in person in January 2020 - Photo provided by: Dr. Michael Mahero

- *Content:* Did the curriculum cover topics of relevance to the system in which participants work?
- *Delivery:* What aspects of program delivery supported participants’ awareness of their system of work?
- *Utilization:* In what ways were participants able to utilize new knowledge and skills within their system of work to effect positive change?

Using results from surveys, interviews and focus groups conducted with participant learners and key partners who supported the work, we conclude that amongst the range of factors impacting the animal health systems in Kenya and Uganda, ProgRESS East Africa resulted in demonstrable positive impact at local, national, and regional levels. Wherever possible, we have used direct quotes as evidence of actual and perceived impact; we also used participant interactions to create case studies documenting program impact.

Finally, in addition to program outputs and results, this report documents the process of designing, implementing, and adapting a hybrid training program in East Africa. At the time we conceptualized ProgRESSVet programs in Kenya and Uganda, we could not find any frameworks to guide the work

of moving forward a systematic online training model in the region. In fact, a review of the relevant literature resulted in a long list of potential barriers and challenges, not the conditions under which a training program such as this could succeed. Acknowledging that many opportunities to improve our approach still exist, it is our intentional to introduce here a potential resource for colleagues aiming to move away from pervasive deficit approaches and explore instead the opportunities for growth that, in our experience, are inherently present and have been enthusiastically adopted by our in-region colleagues and participants.

### Project Implementation leads:

- Maria Sol Perez Aguirreburualde, DVM PhD**  
Program Director for International Research Development (CAHFS)  
Co-Investigator
- Mary Katherine O'Brien, PhD**  
Program Director for Education & Outreach (CAHFS)  
Co-Investigator

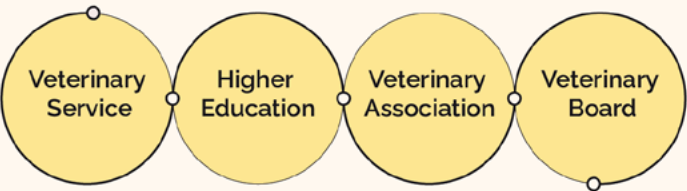


# ProgRESS<sup>Vet</sup> EAST AFRICA

2 COUNTRIES



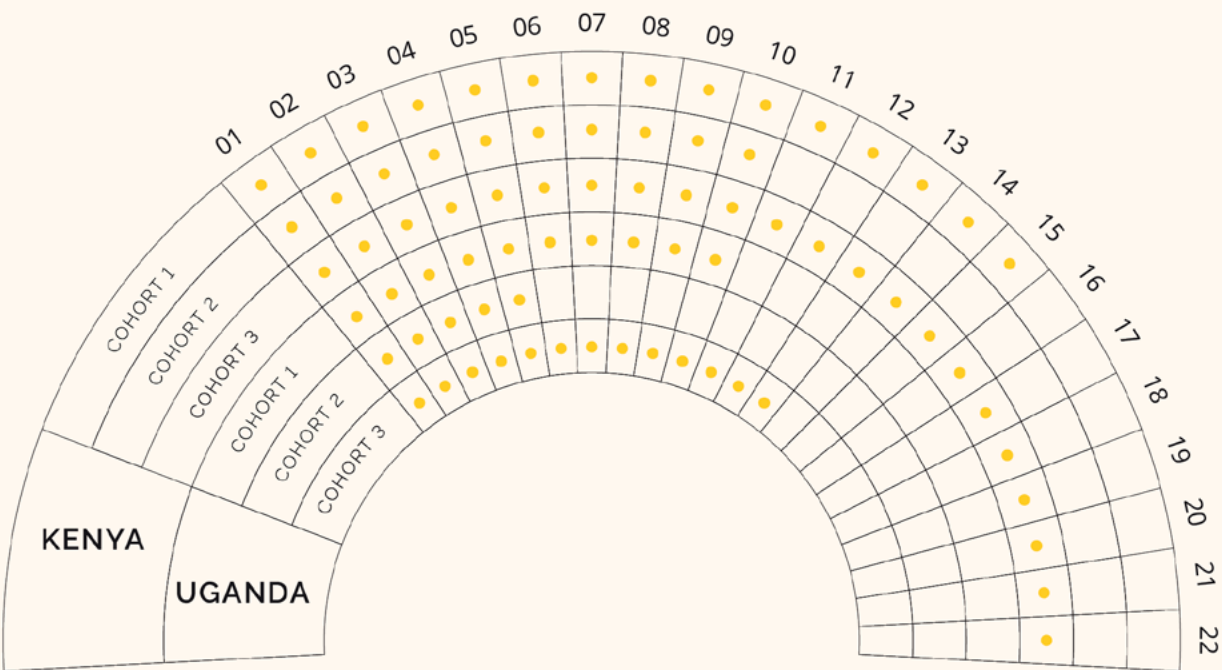
NETWORK OF CORE PARTNERS  
REPRESENTING KEY INSTITUTIONS  
OR SECTORS



3 COHORTS ——— 2019 - 2022

 103 STARTED  
THE PROGRAM

 74 FINISHED  
THE PROGRAM



## Project By The Numbers

5 COURSES

4 Technical Curriculum  
1 Proposal Development

 149.5 HOURS OF TRAINING  
INCLUDING

Introduction to International Trade Policy  
Planning at the Central Level  
Disease Prevention, Detection and Containment in the Field  
Food Safety Risk Analysis and Certification  
Proposal Development

26 Assignments  
(11 Activities - 15 Quizzes)  
16 Discussion Forums  
20 Proposal development assignments

FEEDBACK  
Individual feedback  
19 (courses)  
10 (proposal development)  
Group feedback  
13 (courses)  
10 (proposal development)

 ROUNDS

COHORT 2  
5 Rounds sessions per cohort during the training phase (total of 10), 18 meetings during the proposal development phase for small group support

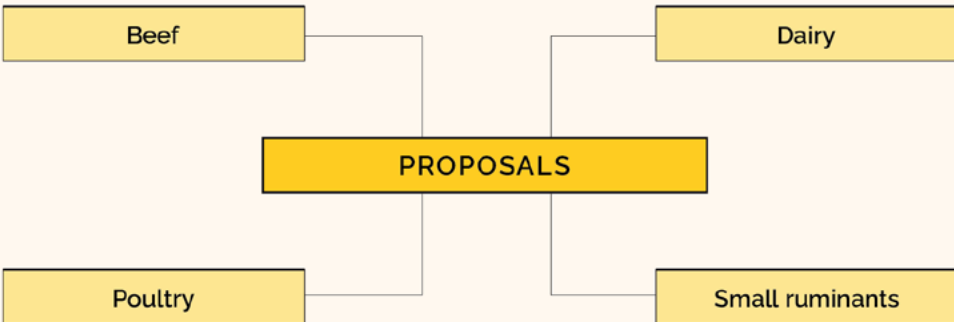
COHORT 3  
30 Rounds sessions (1.5 hours average duration) and 2 combined sessions for the Kenya and Uganda groups

70 CONCEPT NOTES

distilled in

19 PROJECT IDEAS

Array of Topics Covered in Participants' Concept Notes by Value Chains



 **SYMPOSIUM**  
CELEBRATING KNOWLEDGE  
TRANSLATION TO THE FIELD

14 Submissions to the  
1st ProgRESSVet  
Symposium

13 Submissions to the  
2nd ProgRESSVet  
Symposium

52 Participants in the 1st  
ProgRESSVet Symposium  
July 27, 2022

46 Participants in the 2nd  
ProgRESSVet Symposium  
August 17, 2023



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# Abbreviations, acronyms, and terms

BMGF	Bill and Melinda Gates Foundation
CAHFS	Center for Animal Health and Food Safety (University of Minnesota)
COVAB	College of Veterinary Medicine, Animal Resources and Bio-security (Makerere University, Uganda)
CVM	College of Veterinary Medicine, University of Minnesota
DVS	Directorate of Veterinary Services
FAO	Food and Agriculture Organization of the United Nations
KVA	Kenya Veterinary Association
KVB	Kenya Veterinary Board
KWVA	Kenya Women's Veterinary Association
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
OIE	Historically used acronym, World Organization for Animal Health (revised to WOA <sup>H</sup> , 2022)
PVS	Performance of Veterinary Services (program, WOA <sup>H</sup> )
STDF	Standards and Trade Development Facility (of the World Trade Organization)
TAHC	Terrestrial Animal Health Code (document, WOA <sup>H</sup> )
UMN	University of Minnesota
UVA	Uganda Veterinary Association
UVB	Uganda Veterinary Board
VS	Veterinary Services
WHO	World Health Organization
WOAH	World Organization for Animal Health
WTO	World Trade Organization



# Background

## 01.

## History

**ProgRESSVet is the signature training program of the Center for Animal Health and Food Safety (CAHFS) at the University of Minnesota.**

> Born from the idea that a systematic approach could significantly enhance professional development for veterinary services, ProgRESSVet aims to implement an in-service training model to help veterinary services professionals build knowledge and apply skills through a complementary series of courses rather than ad hoc workshops while affording the opportunity for participants to maintain their professional responsibilities

The foundation of ProgRESSVet courses is the World Organization for Animal Health's advanced competencies<sup>1</sup> to assure National Veterinary Services of quality — the knowledge and skills that WOAH has identified to be adequately prepared to participate in Veterinary Services delivery (in both public and private sectors). The courses target mid-career professionals with relevant topics and frameworks that are not robustly taught in the traditional veterinary curriculum for example risk analysis, advanced epidemiology and disease control, inspection and certification procedures, international trade and public policy — with a systems thinking approach that prepares participants to work across stakeholder groups, to participate in strategic planning, and to implement and evaluate evidence-based approaches in their daily work.

The first iteration of Programa Regional de Educación Sistemática de Servicios Veterinarios (ProgRESSVet) was

offered in Latin America in 2017, reaching participants across South America and Mexico with coursework in the Spanish language and applied project development, leveraging the expertise of instructors and mentors from the University of Minnesota, Universidad de Buenos Aires (Argentina), Universidad de la República (Uruguay), Universidad Complutense de Madrid (Spain), Pontificia Universidad Católica de Chile, and a range of organizations related to animal health, human health, and food systems in the region, including Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA) and Organización Panamericana de Salud (PAHO).

After a second program offering in Latin America in 2018, CAHFS began exploring opportunities to scale up training efforts through the development of coursework in other languages and the formation and expansion of partnerships to support the capacity-building work that serves local needs and aligns with the respective national priorities. In 2023, ProgRESSVet training programs are also offered in SouthEast Asia (Vietnam and Philippines), Colombia (in the Spanish language), and in East Africa (Kenya and Uganda), which is the focus of this report.

<sup>1</sup> Currently under revision to Day 2 and Expert competencies





Photo provided by: Anna Pendleton

## Center for Animal Health and Food Safety



### Mission

We partner to promote a safe and secure food supply while protecting the health and well-being of animals, humans, and the environment.

> The Center for Animal Health and Food Safety (CAHFS) at the University of Minnesota College of Veterinary Medicine (CVM) is a service unit for issues related to veterinary public health. CAHFS activities are ultimately intended to prevent or mitigate the risk associated with endemic, emerging, and foreign diseases that affect the health of animals, humans, and the environment.

CAHFS is one of eight WOAHP-designated Collaborating Centers for Capacity Building, with a particular focus on Veterinary Services Capacity Building. It is also a Veterinary Public Health Reference Center for the Food and Agriculture Organization of the United Nations (FAO).



Food and Agriculture  
Organization of the  
United Nations

FAO Reference  
Centre for Veterinary  
Public Health

## Opportunity in East Africa

> More than 50% of the African continent's livestock is located in East Africa (DAI, 2019). In their official regulatory capacity, national veterinary authorities and veterinarians across the region are uniquely positioned to sustainably support livestock production systems by improving the implementation of animal health and food safety standards toward the betterment of the food system, public health, and the economy in their respective countries and, in collaboration with one another, toward the harmonized regional approach advocated by WOAHP.

To unleash this potential, it is imperative that **veterinary services<sup>2</sup> workforce development builds and reinforces skills to design and implement effective interventions founded in principles of good veterinary services governance.**

In this regard, an independent review process commissioned by WOAHP on the Performance of Veterinary Services (PVS) Pathway Reports was performed for African Member states and released in 2019, presenting key insights on this matter (Weaver Consulting International, Intiga Consulting, and Colibri Consulting, 2019). The authors, after reviewing over 100 mission reports from the region carried out between 12/2006 and 02/2019, stated that while "there were notable differences between countries" (...), "it appeared that overall there had been little change in the performance of the Veterinary Services in Africa over the intervening periods."

Still, "when the report narrative text was reviewed in more detail, and other factors were taken into account, marked improvements were identified in a number of core areas which were not reflected in scores as they were considered to be insufficient to warrant advancement by a full point on the categorical Level of Advancement (LoA) scale."

In this context, this report's priority recommendations section captured that:

- *VS should be allocated adequate human resources, from national to field level, with increasing use of qualified veterinarians, specialist qualifications in disciplines such as risk analysis and epidemiology (...).*
- *National and regional strategies for continuing education should be developed based on needs assessments. The lack of appropriate continuing education is a serious impediment in many countries and should be addressed for both day-to-day operations and for the more specialist needs (such as in risk analysis, epidemiology, food safety, communications, and animal welfare) of the VS.*



ProgRESSVet participant vaccinating a goat - Photo provided by: Dr. Bridget Abiro


<sup>2</sup> As defined in WOAHP's Terrestrial Animal Health Code (TAHC), VS means the combination of governmental and non-governmental individuals and organizations, responsible to relevant Competent Authorities, that perform activities to implement standards and recommendations of the Terrestrial Code.

The project *Leveraging PVS Gap Analysis to support Veterinary Service capacity*, described in detail in this report, was designed to address these issues by engaging leaders and stakeholders in both countries to explore the potential benefits of connecting the activities of the veterinary services with the research, training, and outreach efforts of the Center for Animal Health and Food Safety.

ProgRESSVet East Africa was developed and implemented as a capacity-building program from 2019-2023. The program aimed to improve local, national, and regional practices of veterinary services and to promote access to regional and international markets through the formation and development of local strategic partnerships to train individuals. The training was designed to build the knowledge, skills, and relationships necessary to enhance veterinary services effectiveness for sustainable local development through their daily work.



ProgRESSVet participant (Cohort 1 Uganda) during the first workshop in person in January 2020 - Photo provided by: Dr. Michael Mahero



Leveraging PVS Gap Analysis to support Veterinary Service capacity was made possible with the support of the Bill & Melinda Gates Foundation and with guidance from BMGF’s Agriculture Development and Livestock teams.

# In-Region Partners

> ProgRESSVet East Africa would not be possible without the contributions, strategic guidance, and support of the following individuals and organizations:

<div> <b>ProgRESSVet Kenya:</b> </div> <div> <b>Directorate of Veterinary Services</b> <ul style="list-style-type: none"> <li>• Dr. Charles Ochodo</li> </ul> </div> <div> <b>Kenya Women’s Veterinary Association (KWVA)</b> <ul style="list-style-type: none"> <li>• Dr. Marilyn Karani, Chairperson, and KWVA’s Executive Committee</li> </ul> </div>	<div> <b>ProgRESSVet Uganda:</b> </div> <div> <b>Makerere University College of Veterinary Medicine, Animal Resources and Bio-security (COVAB)</b> <ul style="list-style-type: none"> <li>• Dr. Frank Mwiine</li> </ul> </div> <div> <b>Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)</b> <ul style="list-style-type: none"> <li>• Dr. Deo Ndumu</li> </ul> </div>
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We invite you to read remarks from these partners on Pages 62-65 of this report

We also wish to thank the Uganda Veterinary Board and the Kenya Veterinary Board for their support and approval of ProgRESSVet as a formal continuous professional development (CPD) opportunity.





# Program Design

02.

## Program Design

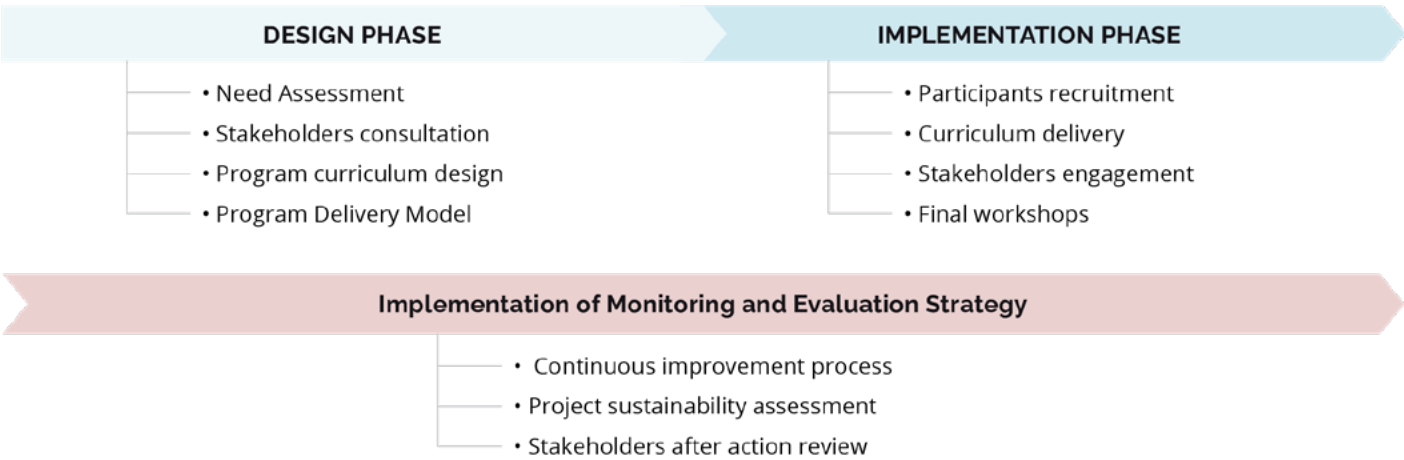
*“Implemented in close collaboration with local partners, we aim to implement a strategy that identifies problems, trains the required workforce, and proposes locally and nationally driven solutions.”*

> In keeping with this stated objective of *Leveraging PVS Gap Analysis to support Veterinary Service capacity*, the ProgRESSVet team pursued the following activities to develop a training plan aligned with identified needs, national priorities, and stakeholder concerns.

ProgRESSVet professional development model: taking **courses**, delivered predominantly online, followed by a **proposal development** phase for participants to integrate new knowledge with existing expertise and familiarity with local needs.

As outlined in the proposal, learners in the ProgRESSVet East Africa program would then engage in the two-phase

Figure 1 | Essential Stages and Elements of Project Implementation



The following pages provide additional detail and a description of these steps.



# Needs Assessment

Initial training needs assessment was conducted using the results of the WOAHPVS evaluation process for Kenya and Uganda.

> As a WOAHP-designated Center for Capacity Building of the Veterinary Services, CAHFS utilizes PVS evaluation reports, follow-up reports, and gap analysis reports as key sources to identify areas for capacity building.

The following documents were used in the initial needs assessment for ProgRESSVet East Africa:

- Kenya
- PVS Evaluation Report ([2007 - publicly available](#))
  - PVS Evaluation Follow-up Report ([2012 - publicly available](#))
- Uganda
- PVS Evaluation Report (2007 - shared on condition of confidentiality)
  - PVS Gap Analysis Report (2011 - shared on condition of confidentiality)
  - PVS Evaluation Follow-Up Preliminary Report (2019, shared on condition of confidentiality)

Additionally, the needs assessment included systematic review of the International Health Regulations of the World Health Organization (WHO) missions evaluating the core capacities “required to detect, assess, notify and report events, and respond to public health risks and emergencies of national and international concern” ([WHO, 2023](#)):

- Joint external evaluation of IHR Core Capacities of the Republic of Kenya (2017)
- Joint external evaluation of IHR Core Capacities of the Republic of Uganda (2017)

Results of the document review portion of the needs assessment were used to set a discussion agenda for stakeholder validation of findings and priority setting with local stakeholders.

[Click here to access the needs assessment results](#)

\* Note: Please note that this document is only a sample of a larger work that includes sensitive and confidential information. To protect the confidentiality of our partners, we have removed sensitive information. The needs assessment was based on, among other key sources, the PVS evaluation missions reports that our regional partners shared with us. These reports were crucial in shaping the direction of the program. While some WOAHP member countries have authorized WOAHP to make the reports fully public on its website, a number of countries only grant access after considering individual requests from WOAHP partner organizations to waive the confidentiality of these reports. In such cases, they have shared the reports with our team after approving our request. If you have any questions on this matter, please contact CAHFS ([cahfs@umn.edu](mailto:cahfs@umn.edu))

## PVS Pathway

The WOAHP Performance of Veterinary Services (PVS) Pathway is “the flagship capacity building platform for the sustainable improvement of national Veterinary Services.” Centered around an evaluation process to identify strengths and weaknesses using a globally consistent methodology based on international standards, the PVS Pathway aims to enable countries to take ownership and prioritize improvements to their animal health system, using:

- a broad-based systems approach,
- a voluntary, country-driven process,
- a longer-term strategic focus (5-10 years),
- a participatory, supportive and collaborative process, rather than being directive or presenting a risk to countries. [WOAHP, 2023](#)



ProgRESSVet participant vaccinating a goat - Photo provided by: Dr. Bridget Abiro



# Initial Stakeholder Consultations: JULY 2019

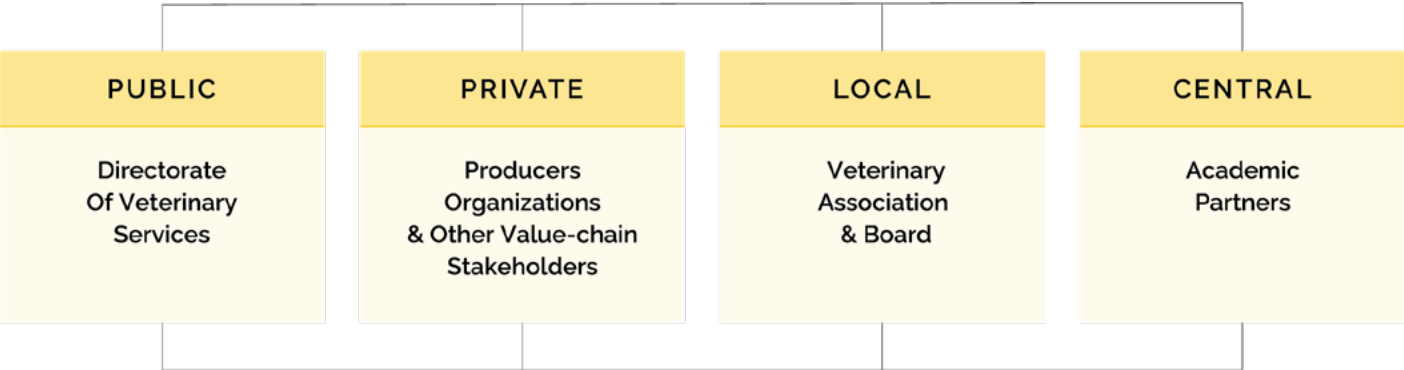
> In July 2019, CAHFS Director and Principal Investigator Dr. Andrés Perez, DVM, Ph.D., traveled to East Africa to meet with stakeholders regarding the proposed *Leveraging PVS Gap Analysis to support Veterinary Service capacity* project. The meetings were an opportunity to:

- Share the project idea with key stakeholders to get their input and support.
- Collaboratively prioritize commodities and value chains as a focus of the training and proposal development phases of the proposed program.
- Identify the key organizations and groups to support the training and promotion of the program.
- Discuss the proposed course content and delivery methods to meet local needs.



Participants at the first stakeholders meeting in Kenya.  
Photo provided by: George Omondi

Figure 2 | Stakeholder groups - July 2019 Meetings



## Kenya - July 23, 2019

- Directorate of Veterinary Services (DVS) staff, including:
  - DVS Policy director
  - DVS Diagnostics
  - DVS Disease free zoning
- Kenya Veterinary Board
- Veterinary Medicine Directorate (VMD)
- Kenya poultry farmers
- Kenya poultry breeders
- Kenya Commercial Bank (KCB) Foundation
- Animal feed representative

## Uganda - July 25, 2019

- National Agricultural Research Organisation
- Uganda Veterinary Association
- Ministry of Agriculture, Animal Industry and Fisheries (MAAIF):
  - National Animal Disease Diagnostics and Epidemiology Centre (NADDEC)
  - Public Health and Marketing Division
- Uganda Veterinary Board
- Makerere University College of Veterinary Medicine, Animal Resources and Bio-security (COVAB)
- Mukono District Local Government - District Veterinary Officer
- Department of Animal Health
- ZDCO Uganda National One Health Platform
- Uganda Beef Producers Association

# eBook Curriculum

> As a result of the needs assessment and stakeholder input, four content areas were identified for participant learning, forming the basis for the ProgRESSVet East Africa courses curriculum (2020-2021).

The program design included a **Technical Curriculum of four eBooks** and an additional **eBook for Proposal Development**, carried out over 12 months and requiring 120 hours of

participant effort. In the eBooks, participants engaged in theoretical and conceptual learning supplemented with opportunities for online interaction and applied learning activities.

[Click here to access the full syllabi of the eBooks](#)



Dr. Sol Perez presentation during ProgRESSVet Final Workshop. Oct, 2022 - Uganda. - Photo provided by: Denis Enywaru

**eBook 1**  
Introduction to International Trade Policy

This course provides the foundations for understanding the system of national and international organizations that support the global food system and the trade of animals and animal products, and their associated policies and regulatory frameworks.

Topics/ Content areas covered

- Introduction to international trade
- Multilateral standard setting for trade
- Sanitary and Phytosanitary Measures (SPS Agreement) of the WTO
- The role of the Veterinary Authority
- Introduction to Veterinary Public Health

**eBook 2**  
Strategies for Disease Control at the Central Level

Using the Central Level of the Veterinary Authority as its focus, this eBook outlines and explores the elements that are crucial for the design, control and evaluation of Official Control Programs and other activities that support animal health at national or regional levels.

Topics/ Content areas covered

- Veterinary Service Infrastructure Mapping for Disease Control
- Risk analysis - Introduction
- Risk analysis - Methods
- Demonstrating freedom from disease
- Official control programs
- Traceability, zoning, and compartmentalization

**eBook 3**  
Disease Prevention, Detection, and Containment in the Field

Effective prevention and control of diseases include the ability to design and implement control and prevention interventions at the farm level, to incentivize producers to proactively collect and share data, to implement biosecurity measures, and to support the investigation of outbreaks. In this course, participants review foundational concepts related to the prevention and control of diseases at the farm level and data collection that then can be shared with the central level to support the design of regional plans.

Topics/ Content areas covered

- A systems-thinking approach for veterinary practice
- Principles of study design
- Participatory epidemiology
- Introduction to economic analysis applied to animal health
- Prevention and control tools & concepts - Biosecurity
- Prevention and control tools & concepts - Vaccination programs
- Detection & Response – Outbreak investigation
- Tying it all together: Zooming in from global to local

**eBook 4**  
Food Safety Risk Analysis and Certification

This two-part course first covers the process of risk analysis, an internationally recognized framework to prioritize, assess, manage, and communicate food safety risks. eBook 4 then addresses the fundamentals of the certifications to meet standards to support access to international trade in regional and international markets.

Topics/ Content areas covered

- Food Safety Risk Analysis
- Fundamentals of the certification process
- Certifications for animal health and food products
- Live Animals Certification
- Slaughter and processing plant certifications
- Animal transport and certification
- The role of veterinary diagnostic laboratories in certification
- Registration of Veterinary Products and Diagnostic Tests
- Quality assurance in the certification process



# Why Proposal Development?

> The primary goal of ProgRESSVet is to equip participants with the knowledge and skills to critically: **assess, design, communicate** and **implement** interventions within their sphere of influence to improve animal and public health and to reduce SPS barriers to trade.

The step-wise proposal development phase was designed to complement the curriculum through the exercise of applying the technical content from the eBook courses to the design of tailored solutions to tackle challenges within local value chains. Participants then captured those in detailed project proposals for funding to promote the implementation of international standards and, ultimately, to support access to trade.

Throughout their work in the eBook Technical Curriculum, the participants were invited to explore and identify, individually, key challenges to animal health and food safety in their local settings. In preparation for the proposal development phase these exercises in the technical curriculum allowed them to build familiarity with foundational concepts of proposal development. This was important preparation for the proposal development phase, which was operationalized with work in small teams.

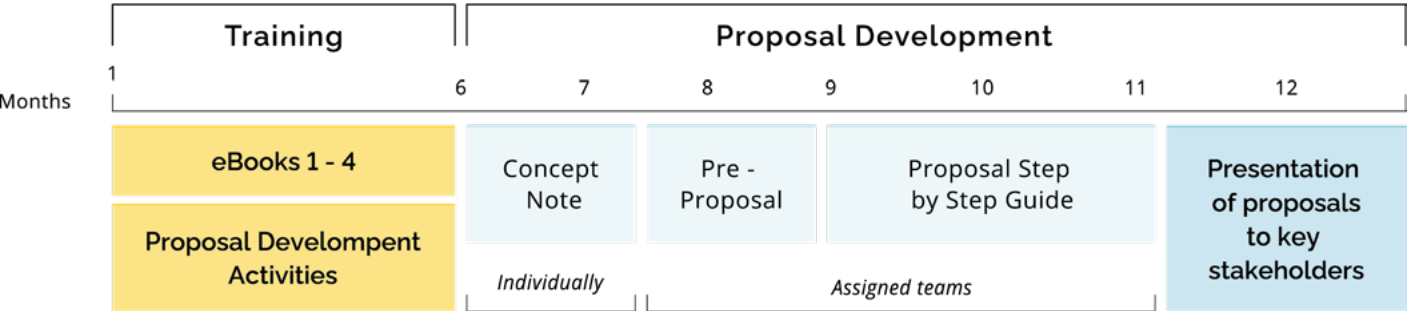
As a model of a potential funding mechanism, the ProgRESSVet team selected the Standards and Trade Development Facility (STDF) program of the World Trade Organization (WTO). This selection was based not only on the specific alignment with the program goals but also on the understanding that the inclusion of a credible real-world entity would help maximize the impact of the learning experience. Using the STDF application and application process as a practical example, participants were able to familiarize themselves with the funding agency's strategic plan and also review current and previous projects, both of which are necessary steps in proposal writing.

- Main objectives of this component:
- Practice the ability to apply/translate the knowledge gained from the technical curriculum to tangible and contextualized ideas of solutions
  - Familiarize the participants with the main component of the project proposal development process and its connection with the project/activities/program implementation cycle.
  - Set the foundation for a local community of practice to support the development of locally driven projects.
  - To share tools that could enhance the effectiveness of currently available resource allocation.



Program participants engaging in a focus group exercise during the final workshop in November 2022, Kenya - Photo provided by: Dr. Maria Sol Perez

Figure 3 | Timeline of proposal development phase



## Proposal Development Phase eBook | Proposal Development Activities

This course provides the foundations for proposal development, including some insights on the project implementation phase. Participants are provided with a versatile repository of tools that can be applied at different levels of planning and decision-making, which can be adapted for a relatively small project or a higher-level program.

- Topics/ Content areas covered
- Introduction to Project Proposal Development
  - Concept note
  - Introduction to ProgRESSVet Pre-Proposals
  - Working in teams: The importance of effective collaboration
  - Pre-Proposal
  - From Pre-Proposal to Full Proposal
  - Operationalizing your plan
  - Budgeting
  - Monitoring and Evaluation

# Program Implementation

# 03.

## Participant Recruitment

> By design, all ProgRESSVet programs aim to reach mid-career professionals who bring expertise (developed through field work in their respective local environments) to share with peers while also building additional knowledge, skills, and connections to advance the work of veterinary services. The majority of ProgRESSVet participants are recruited from the public sector of veterinary services. A limited number are recruited from the private veterinary service, although the veterinary services in the East African region have expressed interest to expand program reach in the future to more private vets, many of whom are contracted regularly to carry out national government programs and disease control activities.

ProgRESSVet East Africa participants were identified in collaboration with local partners, through open calls in Uganda and by DVS and KWVA nomination in Kenya. Applicants submitted an application detailing their educational and professional background, current position, and motivations for joining ProgRESSVet. Two letters of reference were required, with one requested from the immediate supervisor in the veterinary services to ensure that participants had organizational support to join a longer-term professional development program.

### ProgRESSVet East Africa reached participants in the following positions:

- Assistant Director of Veterinary services (Central level)
- Veterinary Officer (Central level)
- County/District Senior Veterinary Officers
- County/District Veterinary Officers
- Sub County/ Sub District Veterinary Officers
- Private Veterinarians
- Epidemiologists
- Lecturers/ Educationists
- Other members of the VS



Intentional recruitment in Kenya and Uganda resulted in diverse cohorts, considering both work location and gender. A key objective was to attain a robust and wide-ranging geographical representation, encompassing central-level (central veterinary services headquarters) as well as local-level (county or district offices) positions. This goal was crucial to foster productive interactions among officers with diverse professional backgrounds and perspectives, facilitating effective discussions on system challenges.

Furthermore, promoting the recruitment of female colleagues among our partners was a significant priority for the CAHFS team. Women currently represent a steadily increasing minority in the veterinary field in East Africa, creating a strategic opportunity to bridge the existing workforce gap.

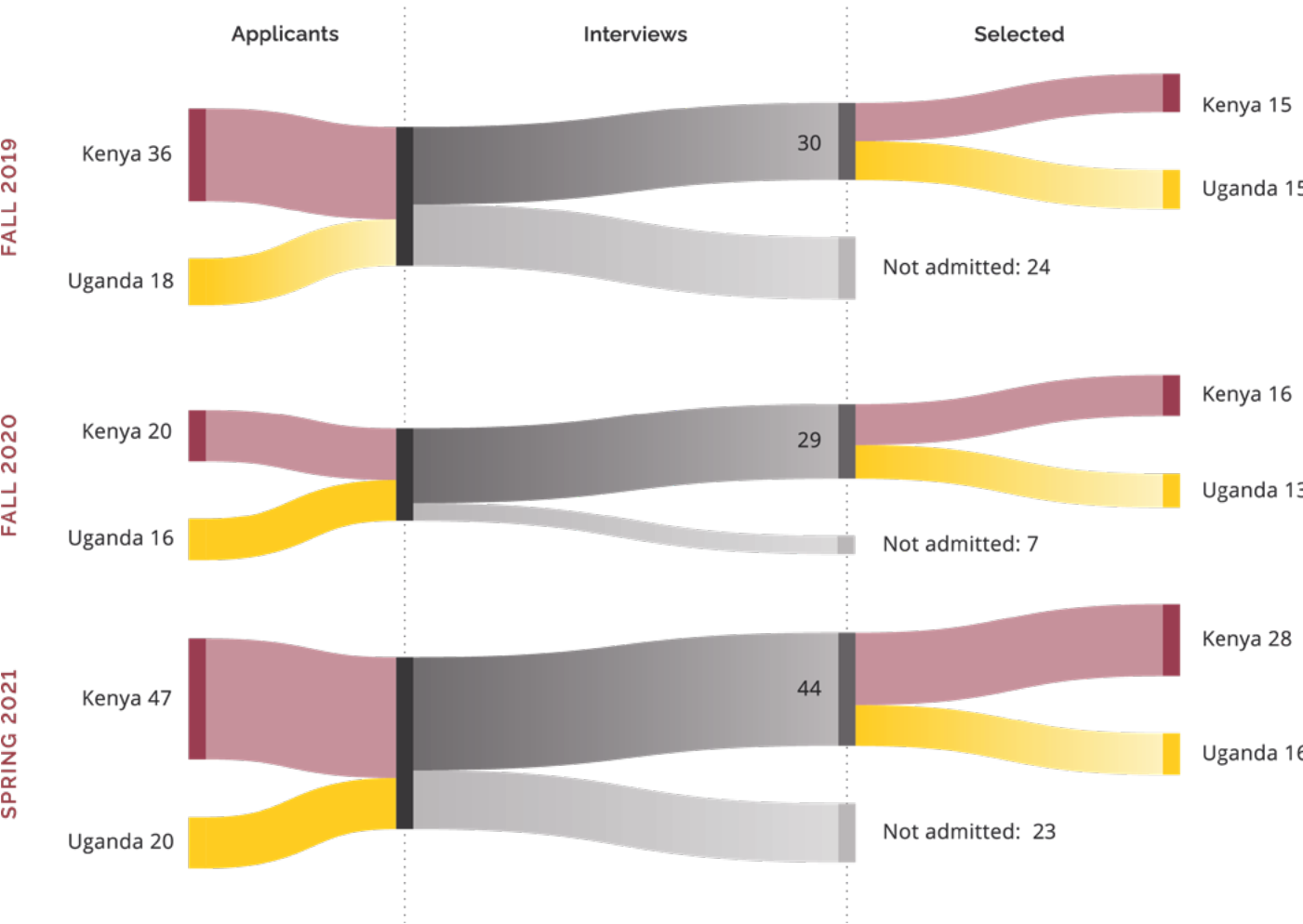
The characteristics of the cohorts' makeup enhance the training experience by offering participants not only technical instruction but also the chance to engage with diverse viewpoints during group discussions. Within these discussions, participants were prompted to contemplate their understanding of challenges within their professional practice and beyond. This meaningful exchange facilitated a wider grasp of these challenges and provided an avenue for refining problem-solving approaches.

Why mid-career?

From its inception, ProgRESSVet has aimed to address the veterinary services training gap for mid-career professionals by providing a systematic, in-service option for professional education. With some distance from their formal veterinary training, and yet often not enough years in service to assume leadership positions, mid-career members of the veterinary services are often tasked with the design and implementation of activities that meet areas of critical need, such as risk analysis or assessment, surveillance, control of transboundary diseases, and monitoring of progress of animal health programs, all of which are well documented in available PVS Evaluation and PVS Gap Analysis reports in the East African region and beyond. In this context, training becomes a critical tool to achieve proficiency across the veterinary workforce. Historically, options for further training have been either ad hoc (short term seminars, workshops or webinars) or require departure from work for further degree attainment (O'Brien, et al, 2019).

ProgRESSVet training aligns available and convenient training with local needs through extensive consultation with national partners who help to shape the training to attract those individuals who are invested in improving the veterinary services' approach. ProgRESSVet is offered free of charge to individuals thanks to the support of national governments and funding agencies such as BMGF who make the training possible.

Figure 4 | Recruitment Strategy Across Cohorts (2019 - 2022)



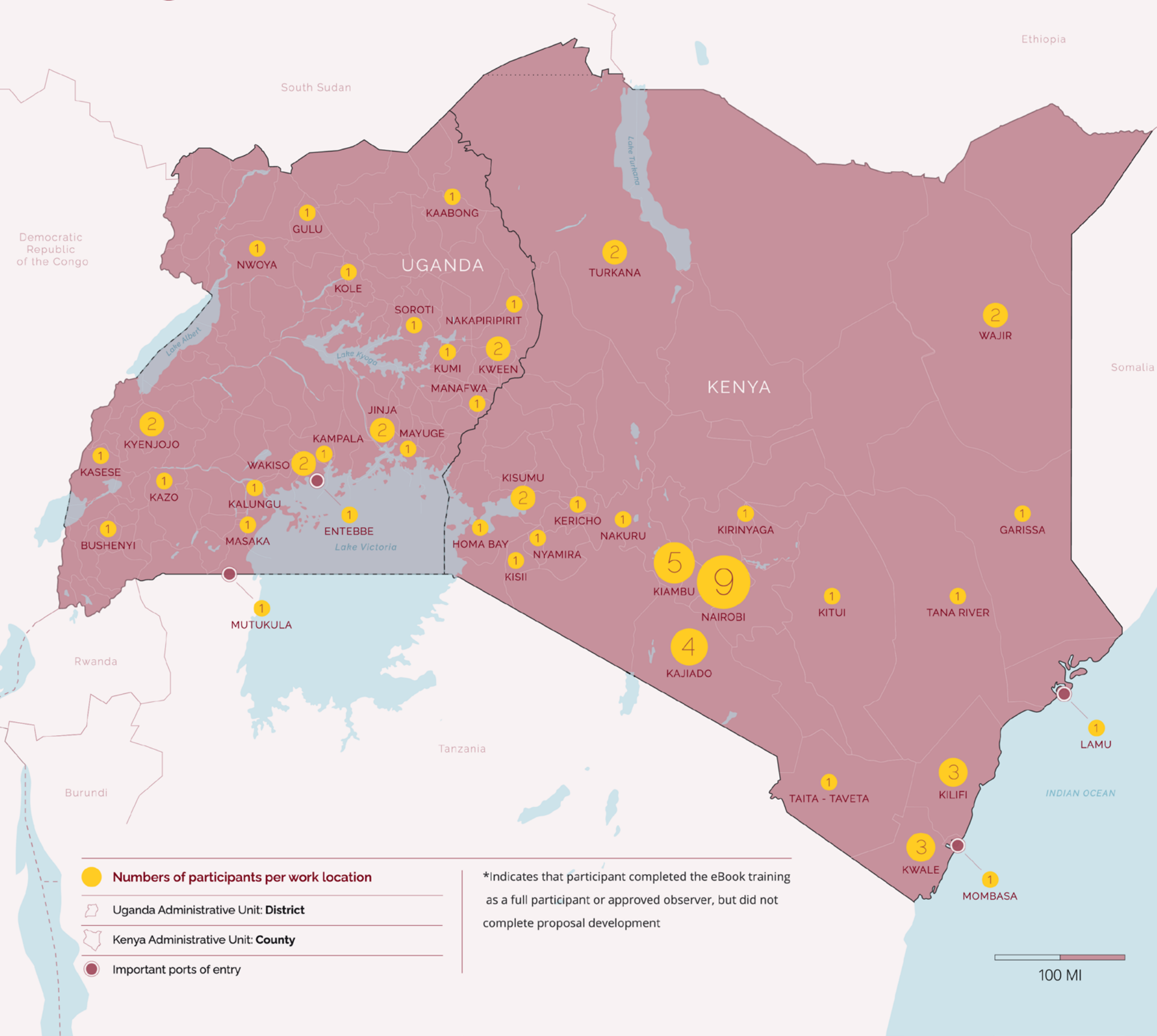
Participant Selection

> ProgRESSVet team members reviewed participant materials and scheduled interviews with each applicant.

The purpose of the interviews was two-fold: 1) To gather more information about each applicant (professional experience, interest in a specific commodity, aims for participation) to inform the selection of recommended participants, and, 2) To introduce the objectives of the program and clarify applicants' questions or concerns. Two members of the ProgRESSVet team participated in each interview.

The ProgRESSVet team made preliminary recommendations to partners, who then finalized and certified the selection before communicating the results to the applicants and selected participants. The involvement of local partners in this process was intentional and intended to generate and maintain organizational support for participants and to keep local entities aware of all ProgRESSVet activities.

[Interested in learning more? View the interview guide here.](#)



**KENYA — Cohort 1**

- Dr. Abukar Abdullahi
- Dr. Ahmed Jelle
- Dr. Beatrice Akinyi Otina
- Dr. Edina Cherotich
- Dr. George Evans Odhiambo
- Dr. Charles Ochodo\*
- Dr. Gerald Manyeki
- Dr. Isaiiah Nchagwa Chacha
- Dr. Jane Akale Eragae
- Dr. Karen Macharia
- Dr. Paul M. Mwamburi
- Dr. Paul Odhiambo Ayieko
- Dr. Penina Kareauki Mutua
- Dr. Tabitha Nyambura Gathecha
- Dr. Winfred Kidada\*

**KENYA — Cohort 2**

- Dr. Kenga Wilson B
- Dr. Khadija Chepkorir
- Dr. Leonida Nyakerario Osoro
- Dr. Marilyn Karani
- Dr. Mwaringa Godrick
- Dr. Nyaga Nazaria
- Dr. Omanga Charles
- Dr. Ondieki George Kiage
- Dr. Paula Milavi
- Dr. Waweru David

**KENYA — Cohort 3**

- Dr. Agnes Maina
- Dr. Anima Sirma
- Dr. Anne Anyango Olang'o
- Dr. Bridgit Muasa
- Dr. Emily Muema
- Dr. Haret Abdullahi Hambe
- Dr. George Mugia Kimani\*
- Dr. Gerald Mburu Mucheru
- Dr. Keziah Wanjiru Maina
- Dr. Jaquinvadah Achieng' Gila
- Dr. Mary Romona Ndanyi
- Dr. Mohammed Ahmed Umlai
- Dr. Muliuki Richard M'maraki
- Dr. Mulonzi Catherine Nthoki
- Dr. Mwapitu Hamisi Mwalonya
- Dr. Mwobobia Royford Murangiri
- Dr. Naomi Murage\*
- Dr. Nellius Wangui Ngugi
- Dr. Oduor Odero Charles
- Dr. Peninah Wamboi
- Dr. Rinah Sitawa Wangila
- Dr. Wandera Eric Chemiati

**UGANDA — Cohort 1**

- Dr. Emmanuel Busingye
- Dr. Dreck Ayebare
- Dr. Elizabeth Kigongo
- Dr. Isabel Mweheire
- Dr. Godfrey Kahuta
- Dr. Levi Cheptoyek
- Dr. Menya Muzafalu
- Dr. Hubert Mirembe Olwol
- Dr. Obbo Bonifance
- Dr. Wilson Amanyire

**UGANDA — Cohort 2**

- Dr. George Muhanguzi
- Dr. Kalanda Rodgers
- Dr. Okot Darwin Bella
- Dr. Valeria Eugenia Nawajje
- Dr. Yusuf Kibaya Lyabua

**UGANDA — Cohort 3**

- Dr. Abiro Bridget Roselyne
- Dr. Atim Jeniffer
- Dr. Babiye Priscilla
- Dr. Kapio Harman
- Dr. Kemiyondo Honest
- Dr. Lomong Philip
- Dr. Mpala Geofrey
- Dr. Mutesasira Jesse Mukisa
- Dr. Mulindwa Tanansi
- Dr. Mwanja Moses
- Dr. Wasswa Auther Tamale
- Dr. Yatuwa Jude



## Participants' motivations for joining ProgRESSVet

> In the post-program interviews ProgRESSVet participants were asked to reflect on their motivations for applying to the program. Primary themes that emerged include:

- Opportunities to address a perceived gap in skills and knowledge not covered in veterinary school
- Recommendations from peers who participated in previous cohorts
- Continuing education related to participants' current areas of work
- Training to support professional progression

Understanding these motivations and participants' perceptions of ProgRESSVet's value provides useful information and direction for future programming in veterinary services training in the region.

### In follow-up surveys of Cohorts 1 and 3:

Over 95% of the participants found the course content to be relevant to their current and future professional practice.

Approximately 66% of respondents indicated that the material in the ProgRESSVet eBooks was relevant to their intended future professional practice, with 34% indicating that the content was "extremely" relevant to future practice.

*"When I was approached for the course, I found it was quite interesting because mainly I found it is working more with food safety and that has been my area of interest and mainly what we are dealing with because even in meat inspection, it is more towards food safety and meat safety for our consumers. So that is what drew me to apply for the course"*

Quote from participant from Kenya

*"My ambition is that I really want to know more about Epidemiology and international trade since our district is the bordering district to Congo, and they've already given me a promotion, I would be in position to handle issues of international trade at our border so that we are able to export animals of quality with the neighboring country"*

Quote from participant from Uganda

*"It was to further my knowledge. I mean to get more knowledge on my work. You know what they teach you in Vet school is really not enough when you graduate. But then now things are a bit different on the ground and I felt that the ProgRESSVet course was a link between what you learn in school and also what you are doing on a day to day basis"*

Quote from participant from Kenya

## Curriculum and proposal development implementation

### Curriculum Phase

> To support ongoing professional practice, ProgRESSVet courses are delivered predominantly online to in-service workers.



ProgRESSVet participant (Cohort 1 Uganda) during the first workshop in person in January 2020 - Photo provided by: Dr. Michael Mahero

Dual Delivery Model

> In response to partner and participant concerns about implementing an eLearning program in East Africa, the ProgRESSVet eLearning team developed a dual-delivery approach to promote access to learning materials regardless of internet connectivity. Courses were delivered via:

- The online learning management system Canvas (desktop and mobile options)
- PDF eBooks and corresponding flashdrives containing downloaded multimedia content.

Course content and structure were the same in each method. Course assignments could be submitted through Canvas, but also by email or as a picture via WhatsApp if a participant worked something out by hand.

In a survey of Cohort 1 participants, the first cohort to use the Dual Delivery approach, approximately half of the respondents in both countries indicated that they had used a combination of the Canvas sites and the PDF eBooks to complete their coursework. Fifty-one percent (51%) of individuals indicated that they had a positive experience navigating the Canvas sites, and 81% reported a positive experience using the PDF eBooks.

This early feedback provided validation of the effort to maintain both types of course material and also opened a conversation regarding improvements to the eLearning sites and the eBook formats to support the learning experience, as well as the usability and synergy of both tools.



Program participants engaging in a focus group exercise during the final workshop in November 2022, Nairobi - Photo provided by: Dr. Maria Sol Perez

*“PDFs easily showed page numbers, and it was easier to plan so as to complete assignments on time. Canvas, on the other hand, was richer with information with a lot of ease in all navigations especially doing assignments and following up discussions.”*

Quote from participant from Uganda

*“I used PDF books because they took less internet data and also because my connection at home was not very stable. I only used Canvas when submitting assignments.”*

Quote from participant from Uganda

*“[I used the] Pdf since I could easily print a hard copy for ease of reading*

Quote from participant from Kenya

Formative Feedback

> Ensuring that participants received standard and timely feedback on their assignments was a priority during the course curriculum and the subsequent proposal development phase. Interactions with participants regarding their assignments provided opportunities to discuss and reinforce conceptual and technical material. This also aided participants in reviewing and revising their work and opened important communication pathways for program feedback.

For each country-based cohort, CAHFS identified a feedback coordinator with technical expertise or experience and familiarity with the regional context.

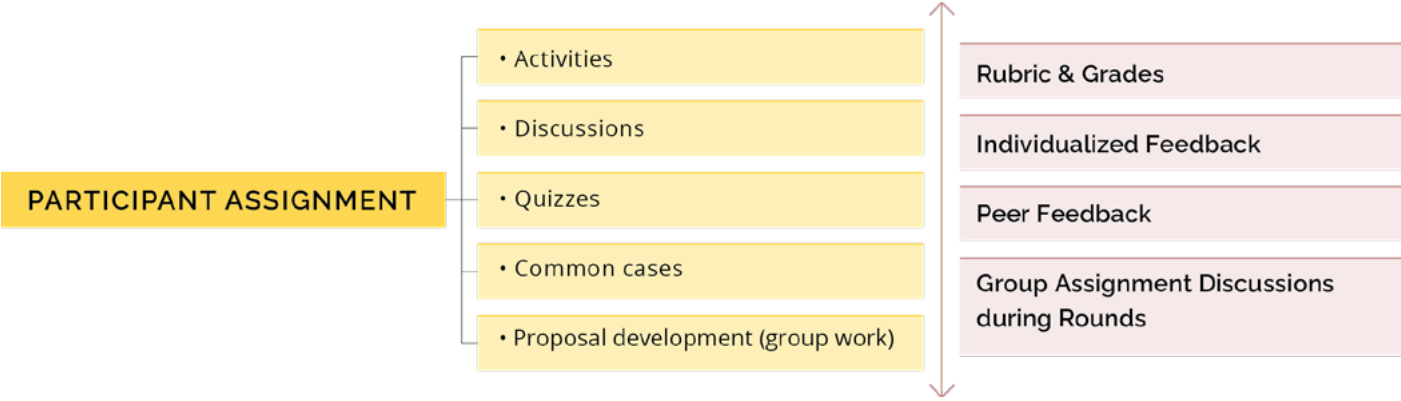
Feedback coordinators:

- Reviewed participants’ work and provided individual feedback on proposals
- Participated in interactive Rounds sessions to address participant questions and concerns
- Maintained communication with participants (individuals, small groups, cohorts)
- Supported the purchase of data packages to support participation in online learning
- Communicated participant needs and experience back to the ProgRESSVet team
- Helped to shape the culture of the ProgRESSVet cohorts, contributing significantly to program-level decisions and continuous improvement efforts



Program participants engaging in a focus group exercise during the final workshop in November 2022, Nairobi - Photo provided by: Dr. Maria Sol Perez

Figure 5 | Types of assignments and feedback process.





Education evaluation for Cohorts 1 and 3<sup>3</sup> showed that across all four eBooks, more than half of post-course survey respondents found the feedback to be extremely or significantly helpful. Conversely, the survey results also highlighted instances where participants were not receiving feedback, which provided a mechanism for follow-up and further coordination with the feedback team. No one reported that feedback received was not helpful at all to their learning.

Figure 6 | Feedback Satisfaction Survey Results

Feedback Satisfaction Across eBooks 1-4:

How would you rate the feedback you received on your assignments from the program team?

KENYA - COHORT 1

Extremely	51.5%
Significantly	34.9%
Moderately	0.0%
No feedback received	13.3%

KENYA - COHORT 3

Extremely	59.7%
Significantly	25.3%
Moderately	15%
No feedback received	0.0%

UGANDA - COHORT 1

Extremely	34.5%
Significantly	38%
Moderately	27.5%
No feedback received	0.0%

UGANDA - COHORT 3

Extremely	31%
Significantly	48%
Moderately	14.4%
No feedback received	6.6%

Assessment Rubrics to Support Consistent and Validated Assignment Feedback

The preliminary program design for ProgRESSVet East Africa did not include scoring for participant work, placing intentional emphasis on participation rather than measured performance. Cohort 1 evaluations, however, clearly indicated that participants wanted scores for their work.

To support the consistent review and grading of assignments, the ProgRESSVet team developed rubrics for evaluating student work by:

- **Phase 1 [Feb-September 2020]:** Conducting a systematic audit of participants’ work in Cohort 1 to assess baseline performance and potential issues with assignment guidelines, prompting:
  - Revision of assignments for conceptual clarity and alignment with course content
  - Reduction of the overall number of required assignments
- **Phase 2 [July-Oct 2020]:** Drafting of assignment-specific rubrics across eBooks 1-4
- **Phase 3 [Nov 2020-June 2021]:** Piloting initial rubrics with feedback coordinators and Cohort 2 participants
- **Phase 3 [April - June 2021]:** Final revisions to course assignments and refinement of rubric language, points
- **Phase 4 [June-Dec 2021]:** Use of validated rubrics with Cohort 3

Improved participant performance Cohorts 1, 2, and 3 suggests that the rubrics have had a positive effect on participants’ capacity to complete assignments and on the feedback coordinators’ ability to appraise participant work.

See report Annex for grading rubric example.

Proposal Development Phase

> Initially, the proposal development phase was intended to be implemented with in-person workshops. However, due to travel restrictions connected with the COVID-19 pandemic, the team had to pivot to a fully online activity, which posed the challenge of adapting a highly interactive process to a digital format.

Key components that were considered in building this phase included:

- **Stepwise approach:** To facilitate the effective engagement of the participants with the task, clear guidelines and instructions for each step were developed, breaking down a complex task into smaller, more manageable steps.
- **Iterative process:** To allow the participants to refine their ideas, making adjustments based on the feedback received by peers and key stakeholders. This feature also meant to motivate collaboration and teamwork, leading to a more effective end result.
- **Multidimensional feedback:** To leverage the input of an extended network of technical experts and local stakeholders, the proposals throughout the development process were assessed not only on the technical aspects but also on the feasibility of its potential implementation.

<sup>3</sup> Due to COVID related pressures Cohort 2 post-course evaluations were suspended; participant feedback was collected in Rounds sessions to alleviate online fatigue.

Knowledge integration

> The activities linked to the proposal development phase during the curriculum delivery were designed to encourage the critical interpretation of new insights and to motivate the participants' thinking around the potential of applying what they learned to a potential project within their sphere of influence to improve animal and public health and to reduce SPS barriers to trade. In eBook 1, the proposal development activities invited participants to explore a specific project that was successfully funded by STDF and, later, the creation of a value chain map where they needed to focus on one commodity and the challenges and opportunities related to bringing that animal or animal product to market. Later, for eBooks 2 through 4, participants were asked to succinctly identify a potential application of key concepts from the curriculum material, not only from a purely technical perspective but also taking into account the feasibility of implementation within their system.



Program participants engaging in a focus group exercise during the final workshop in October 2022, Kampala - Photo provided by: Denis Enywaru

Example | eBook 2 Proposal Development Activity

For this eBook's proposal development assignment, you will select one (1) project idea related to the concepts covered in eBook 2: Planning for Disease Control at the Central Level to practice applying what you have learned to a potential project. Remember, your project should be related to the implementation of interventions within your own sphere of influence to improve animal and public health and to reduce SPS barriers to trade.

You do not need to integrate everything you learn in this eBook, but your assignment should touch on at least one of the following topics: risk analysis, demonstrating freedom from disease, development of official control programs, or strategies for disease control such as traceability or zoning and compartmentalization.

You will outline the following points in two paragraphs:

Paragraph 1 (approx. 200-250 words):

- Describe the problem addressed by this project.
- Describe the potential solution that you would like to implement.
- Describe why this idea is appropriate to address that problem.

Paragraph 2 (approx. 100-150 words):

- Why do you believe this project will be successful in your system/setting?
- Identify at least one challenge one might encounter in developing or implementing this project.
- Brainstorm at least 1 solution to at least one of the challenges you have identified.

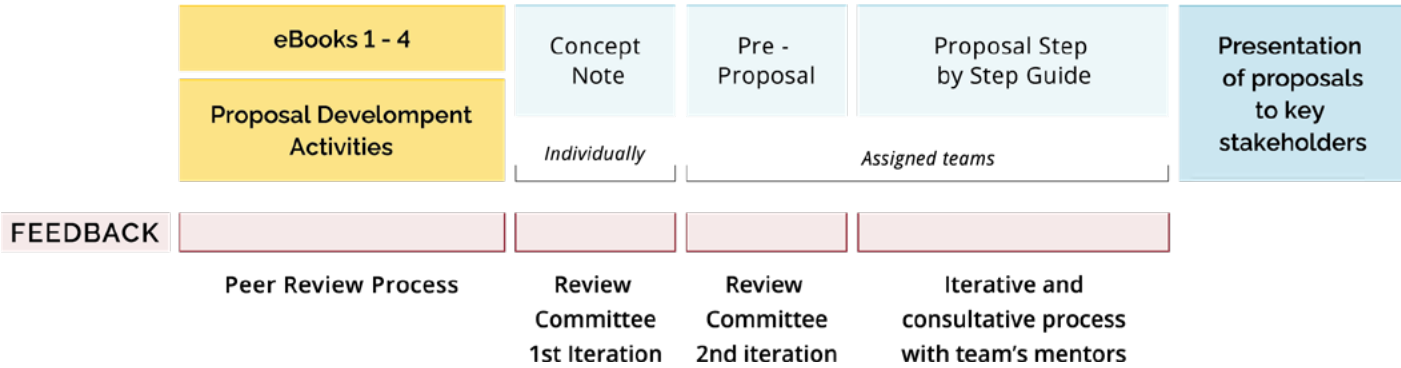


Program participants engaging in a focus group exercise during the final workshop in October 2022, Kampala - Photo provided by: Denis Enywaru

Proposal Development Feedback Process

> The feedback process throughout the proposal development phase was designed to maximize the participants' learning experience on how to address diverse concerns from different stakeholders regarding their project ideas. A four-tier review process was tailored to achieve this goal at each stage of the process (Figure 8).

Figure 7 | Steps of the Proposal Development phase





Who was involved?

- ProgRESSVet staff, based at the University of Minnesota coordinated and worked closely with participants, delivering feedback and guiding each step of the process.
- A Review Committee involving country stakeholders gave specific feedback regarding the project ideas’ relevance, feasibility, and potential impact.
- External technical advisors were involved in advising on specific technical issues involved in the rationale of the proposals.

[Click here to access a list of Review Committee Members and examples of the feedback that each team received after each phase](#)

During the curriculum phase, a peer review process was established to allow participants to provide feedback on their colleagues’ project ideas. Reviewers rotated for each eBook assignment to ensure that a diverse range of perspectives were shared in the review process. The purpose of this activity was not only to provide technical feedback but also to promote the opportunity to interact with peers and share ideas, an important aspect of professional development. After submitting their project ideas based on the information in each eBook, participants were assigned to complete a review and peer exchange activity. This exercise aimed not only to refine the project ideas based on the feedback received from peers, it also provided a valuable learning experience to reviewers, who could improve their own work and gain new insights and perspectives. This process also promoted participants to develop critical thinking skills and improve their ability to evaluate their own work. Furthermore, the program promoted transparency by allowing participants to explore their cohort mates’ reviews, which were published in a public forum.

Later on, during the proposal development phase, a review committee was established to provide feedback to individuals during the concept note stage, and to teams when they submitted their pre-proposals. These two cycles of feedback were meant to be iterative and summative, with a focus on different elements at each stage. The iterative feature allowed participants to refine their ideas and incorporate feedback received during the earlier stage, while the summative feature provided a comprehensive assessment of their proposals. The committee aimed to provide constructive feedback to help participants improve the quality of their proposals.

[Click here to access the full review guidelines and material](#)

# Continuous Improvement of the Delivery Model - Adaptive Management

## COVID Adaptation

> The ProgRESSVet team worked to support all enrolled participants to complete the program despite COVID-19-related challenges with program modifications such as:

- opening individual communication channels with participants to understand their needs
- assessing assignment deadline extensions and exemptions on a case-by-case basis and not by course policies alone
- suggesting alternative submission methods for assignments
- building personalized study completion plans
- purchasing data bundles to support network access and online learning

The flexibility provided in the dual-delivery approach proved particularly beneficial as Kenya and Uganda enacted stay-at-home orders in March and April 2020 due to COVID-19. Changes in participants’ work environment and stay-at-home orders impacted their work-based device and internet access, as well as the amount of time available for the program.

## Strengthening the cohort experience | Rounds Sessions

> Rounds Sessions were piloted in Cohort 2 due to the COVID-19 related constraints that were placed upon the program. Without the possibility of meeting in person, the ProgRESSVet team developed these interactive webinar sessions as a way to provide synchronous participation for participants.

In the initial offering, five (5) Rounds sessions were held for each country group during the training phase (for a total of 10 sessions), and 18 meetings were conducted during the proposal development phase for small group support, serving both the participants from Uganda and from Kenya.

### Rounds Sessions

**Objective**

Provide an opportunity for participants to discuss program material with instructors, experts, and with each other in an open-ended, participatory way.

*“Our goal is to create an environment that will spark creativity and support evidence-based risk-taking as we move towards developing and perhaps piloting ideas that would address pertinent issues in the participants’ region.”*

Dr. Michael Mahero, CAHFS Rounds facilitator

**Structure**

Rounds is based on a **heuristic approach**, a way of learning and problem-solving using experimental, practical, and trial-and-error methods. In each session, it was encouraged to collaborate, debate, and share personal and professional experiences as part of this approach.

*“We received very valuable inputs from speakers from across the world. It was quite helpful and insightful.”*

*“At times one will not get the time to go through the course material, but then when we meet up during the weekly rounds, you find that we are able to discuss from this point and hear different perspectives and now you’re able to understand”*

*“The webinar meeting provided an avenue for interacting with both the facilitators (MU team) and the trainees, a forum to get corrections, guidance, clarifications, additional materials and focus. I always looked forward for them”*

*“Were a source of useful thoughts that helped us push forward when we were stuck. Source of encouragement.”*

*“[The] webinars were very important in a sense that members could share their ideas, opinions and expertise on a number of things. In turn, personally, I got an opportunity to broaden my understanding in a number of things we discussed, like in international trade of animals and their products.”*

Highlights from participants

> To foster the success of Rounds sessions, the following features were piloted and further refined throughout the implementation for Cohort 3:

1. The use of topic areas mutually generated by facilitators and participants. Most of these were drawn from questions and areas of requested help from participants. The eBook structure provided a guideline for topics, but it was not the sole foundation of all the activities that could be presented. In some sessions, there was a focus on a topic that cut across multiple eBooks. An example of this was effective multi-sectoral action or systems thinking.
2. Each session had some input from local or regional voices representing unique experiences in the areas of focus generated in (1) above. These experts were drawn from within ProgRESSVet cohorts or identified from our network of partners within the region.
3. Participants were asked to actively take risks with their thinking and reasoning and to be open to the ideas emerging from the group. A particularly beneficial set of outcomes for this approach includes challenging existing paradigms, reexamining current practices, and identifying areas for reinforcement and areas for improvement.

With ongoing travel restrictions in place and positive initial feedback from participants regarding the interaction with the Minnesota-based team, the CAHFS eLearning staff began

collecting data regarding the Cohort 3 Rounds experience to better understand key supports and resulting participation factors:

**Cohort 3**

**Number of Rounds sessions**

- Kenya Rounds sessions: 14
- Uganda Rounds sessions: 14
- Total Cohort 3 Rounds sessions: 30 (this includes the test drive and ProgRESSVet Symposium

**Participation data - based on the participants communicating with the group either by chat or by speaking during the rounds session**

- Kenya’s average attendance - 62%
- Uganda’s average attendance - 58%
- Kenya average participation - 59%
- Uganda’s average participation - 61%

**Cohort 3 average length of session**

- Kenya - ~107 mins
- Uganda - ~ 110 mins



# Program OUTPUTS

## Participants' "performance"

Table 1 | Participants' performance

### KENYA

Cohort	# Of Applications	# Of Participants	# Completed	Attrition Rate
Cohort 1	36	15	14	6.70%
Cohort 2	20	16	10	38%
Cohort 3	47	28	23	17.90%
Total	103	59	47	20.70%

### UGANDA

Cohort	# Of Applications	# Of Participants	# Completed	Attrition Rate
Cohort 1	18	15	10	33.30%
Cohort 2	16	13	5	61.50%
Cohort 3	20	16	12	25.00%
Total	54	44	27	40%

> Application numbers in both Kenya and Uganda validated significant interest in a hybrid professional development option. From 157 applicants, 103 participants were selected for the six cohorts (2020-2021). Given the reservations expressed regarding the viability of an online program in the region, these numbers serve as a promising indicator of the demand for different training modalities.

Of the 103 accepted individuals, a total of 74 participants completed the training program, exceeding the stated goal of "60 trained" in the original program proposal by more than 20%. Additionally, 70 participants completed the proposal development process, as well, outpacing the original goal by 17%.

Our overall attrition rate was 28.2% from admission to course completion. Reasons for program departure included:

- Unreliable network or power supply for online learning
- Personal or family illness
- Increase in professional commitments in 2020 and 2021, often resulting from COVID-19 workplan restructuring
- Political instability

Attrition was particularly high in Cohort 2, which ran from November 2020 - June 2021, the period of most social disruption due to the pandemic and political situations in East Africa.

Figure 9 | Participants' performance

## eBook Engagement Percentages

TABLE 2 | eBook Completion Percentages

### KENYA

	Cohort 1	Cohort 2	Cohort 3
eBook 1	92%	100%	99%
eBook 2	100%	100%	99%
eBook 3	96%	98%	94%
eBook 4	100%	99%	96%
Overall	97%	99%	97%

### UGANDA

	Cohort 1	Cohort 2	Cohort 3
eBook 1	87%	100%	98%
eBook 2	95%	100%	99%
eBook 3	98%	98%	94%
eBook 4	97%	96%	95%
Total	94%	99%	97%

## eBook Performance Percentages

TABLE 3 | eBook Average Assignment Percentage

### KENYA

	Cohort 1	Cohort 2	Cohort 3
eBook 1	not scored	71%	75%
eBook 2	not scored	71%	83%
eBook 3	not scored	75%	84%
eBook 4	not scored	83%	88%
Overall	-	75%	83%

### UGANDA

	Cohort 1	Cohort 2	Cohort 3
eBook 1	not scored	76%	74%
eBook 2	not scored	80%	80%
eBook 3	not scored	72%	76%
eBook 4	not scored	75%	78%
Total	-	76%	77%

> Two measures were used to describe participant achievement: **Engagement and performance.**

Participant engagement was calculated as the percentage of course assignments completed by individuals who met eBook requirements to advance in the program, and represents the distribution of participants' effort across the required assignments and activities of each eBook course. Overall engagement percentage for Cohorts 1, 2, and 3 in Kenya was **97.8%** and Cohorts 1, 2, and 3 in Uganda was **95.5%**.

Scoring of participant assignments began in Cohort 2, informing the performance measure<sup>4</sup>. Average scores for Cohorts 2 and 3 in Kenya were **79%**, and Cohorts 2 and 3 in Uganda achieved an average of **76.4%**.

Based on historical data from ProgRESSVet eLearning programs, these participation rates and performance indicators are strong.

### Family Leave Policy

In 2021, ProgRESSVet developed a family leave policy to support participants with family issues in completing their cohort studies. This had not been created or implemented in past ProgRESSVet iterations and created a significant challenge to anyone facing family illness, pregnancy, or the birth of a child. Now, all ProgRESSVet participants can request a leave or alternate study plan to maintain their place in the program.

<sup>4</sup> For more information about this, see the report section Improvements to Program Development and Delivery (p. 37)

# Continuous Professional Development (CPD)

> The ProgRESSVet team worked closely with the veterinary statutory bodies from Kenya and Uganda to ensure that participants were earning continuous professional development (CPD) credit while pursuing ProgRESSVet training. Award of CPD credit provides an incentive for program completion and also connects the in-service learning to existing national structures for professional growth and licensure.

## Kenya

> The Kenya Veterinary Board (KVB) ensures that all veterinary surgeons and paraprofessionals accumulate a total of 20 points and 14 points respectively of CPD credits each calendar year. ProgRESSVet Kenya was approved as a CPD provider in 2020 and program participants in each of the years from 2019-2022 received a total of 68 credit points (44 for coursework, 24 for proposal development), covering their CPD requirement for two years if the cohort spanned two calendar years. Participants also received additional credit points for participating in other program activities such as the in-person workshops in November 2023.



### KVB Principles of Points Allocation (excerpt from KVB CPD Guidelines 2013)

The allocation of CP is based on the following principles which are applicable to all categories of CPD activities and/or programs

- a) Every VS must obtain a minimum of twenty (20) CPD credits per year to retain their names in the KVB's register of VS.
- b) A minimum of fifty percent (50%) of the CPD credits in any year MUST be accumulated from activities and/or programs that are veterinary - oriented.
- c) The maximum number of CPD hours that can be accredited for a one (1) day is eight (8) hours.

### UVB Principles points Allocation (excerpt from UVB CPD Guidelines, 2021)

The allocation of CPs is based on the following principles which are applicable to all categories of CPD programs and/or activities

- a) All Veterinary Surgeons on the register whether working part time or full time, in clinical practice or non-clinical practice to comply with the minimum requirement of accumulating twenty (20) CPD points per CPD year in order to retain their names in the UVB's register of Veterinary Surgeons.
- b) Every Veterinary Paraprofessional whether working part time or full time, in clinical practice or non-clinical practice to comply with the minimum requirement of accumulating fifteen (15) CPD points per CPD year in order to retain their names in the UVB's register of veterinary Paraprofessionals.
- c) Participation in CPD is mandatory for all registered and licensed veterinary surgeons and veterinary paraprofessionals.
- d) A minimum of fifty percent (50%) of the points in any CPD year must be accumulated from programs and/or activities that are veterinary - oriented.
- e) The maximum number of CPD hours that can be accredited for a one day CPD program is six (6) hours and minimum of one (01) hour.

## Uganda

> For the duration of Cohorts 1-3, the ProgRESSVet team worked closely with Uganda Veterinary Board (UVB) as UVB set the structure and requirements for their CPD program. ProgRESSVet was preliminarily approved as an official CPD program totaling 33 points for those participants who completed all components. In 2023, UVB successfully gazetted the requirements, putting them into effect for all veterinarians in the country. The 2023 ProgRESSVet Symposium was approved for the award of some of the country's first official CPD credit.





# Proposal Development Phase

> Due to COVID-19 pandemic-related travel restrictions, the second regional workshop scheduled for July 2020 was canceled. Workshop activities moved online and were delivered via the Canvas learning management system and a PDF eBook was released by email ([Click here to access the material](#)).

This training resource followed the Enhanced Integrated Framework (EIF) handbook developed by the Centre for International Development and Training at the University of Wolverhampton, UK, which captures the methodology piloted by the EIF Executive Secretariat, in collaboration with the Standards and Trade Development Facility (STDF), in selected Least Developed Countries in 2011.

The modules list was updated with new sections based on the current STDF Project Grant Application Form structure; the expanded version included the experience and learned lessons of the CAHFS team on the process of proposal development

facilitation with international partners. Developing these materials was essential for facilitating the work of the participants in transforming the concept notes into potential proposals, particularly without the opportunity to meet in person. These materials served as valuable resources for the participants, providing them with guidance, templates, and examples to navigate the proposal development process.

Participants worked for 6 months to develop proposals for project funding, based on opportunities and challenges they identified and explored throughout the eBook curriculum. Participants developed a concept note, pre-proposal, and full proposal using the WTO STDF program as a model of a competitive call for funding and to build the skills and knowledge necessary to navigate future funding opportunities.

Figure 8 | Proposals by the numbers

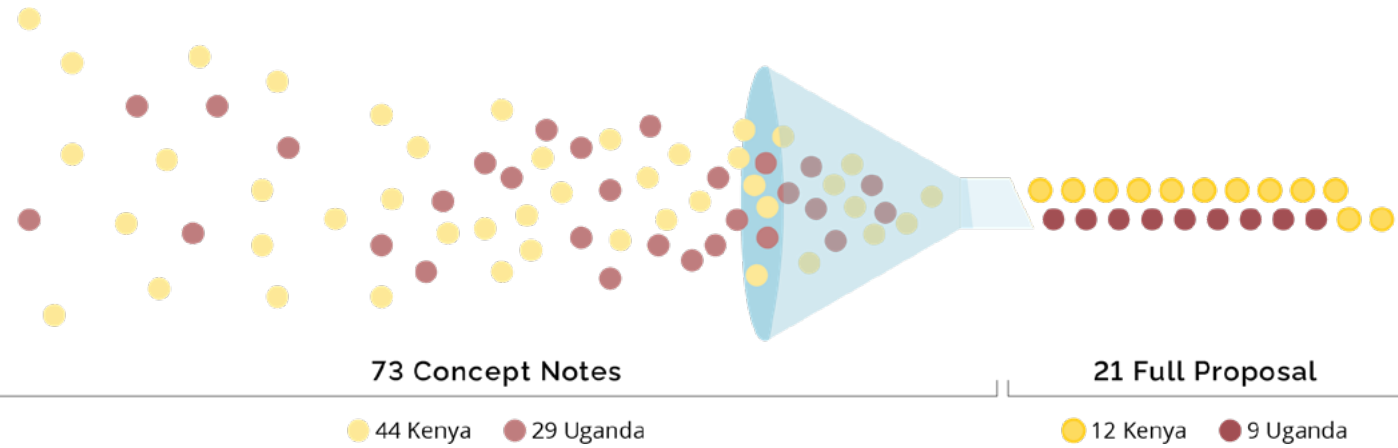
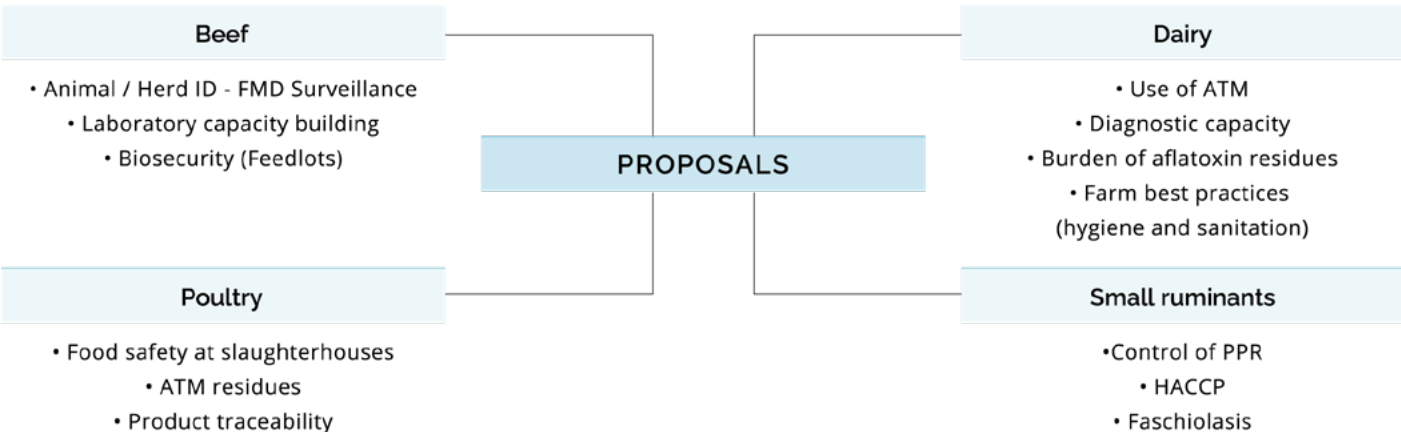


Figure 9 | Array of Topics Covered in Participants' Concept Notes by Value Chains



The following list includes some examples of the the ideas developed in the first round of proposals:

- **Livestock Identification, Registration, and Traceability System to Improve Market Access of Livestock Products In Ankole Sub Region of Uganda** - This project proposes the development and implementation of an animal identification and traceability system to trace the products back to their origin. The system will be essential as a risk mitigation tool to ensure the safety and quality of food products of animal origin. This will increase consumer confidence in the export markets targeted, which will attract higher prices of products in the marketplace and help achieve compliance with sanitary and phytosanitary standards set by importing countries of animals and animal products.
- **Improving SPS Capacity Along the Beef Value Chain in Uganda** - This project aims to promote an improvement of awareness about SPS. Both the public and private sectors lack a clear understanding of SPS and why and how to comply with changing rules and regulations made by importers. Where awareness is lacking, attempts at regulatory enforcement are likely to fail. Awareness is needed among the beef value chain actors so that SPS considerations are reflected along the beef value chain activities.
- **Prevention and Control of PPR in the Pastoral System of Kenya** - The project that is being proposed is a PPR control program for the pastoral communities of the ASAL counties of Kenya with a view to progressively eradicate PPR disease in the long run. The core deliverables of this project include the

assessment and update of the current vaccination program for PPR in Turkana County and improvement of the goat meat slaughter process and monitoring to meet the SPS conditions. The ASALs are home to over 10 million people of Kenya's 49 million people, and approximately 70% of the national livestock herd. Pastoralism makes a significant contribution to the economy with livestock production accounting for 50% of Agricultural Gross Domestic Product (GDPs). The project is fully aligned with the national strategy to control and eradicate PPR disease by the year 2030.

- **Improved quality standards and market access for select dairy products in Kenya** - Consistent supply of high quality milk has been a challenge, as a significant proportion of raw milk produced in Kenya does not meet quality standards due to poor handling hygiene at the farm level and adulteration during marketing. There is a need to introduce context-specific technologies and innovations that address local issues, creating an enabling environment that allows informal actors to purchase equipment to pasteurize and add value to milk. Moreover, there is the opportunity to license and train informal actors to adopt hygienic milk handlings as was envisaged in the policy change of 2004 that liberalized the milk markets. Improved milk quality would enable these stakeholders to reap better prices. The markets to be targeted in dairy products export growth are EAC, COMESA, Africa Region, Gulf Countries and Middle East Countries.

[Click here to access the full list of concept notes and proposals](#)

# ProgRESSVet Symposium

> Understanding that traditional forums or scientific meetings related to animal health may not be the right kind of forum to share the full breadth of the veterinary services professional practice, the very first **ProgRESSVet Symposium** was organized as a virtual mini-conference on July 27, 2022.

The purpose of the event was to share how the program and other initiatives impacted the daily work of the Veterinary Services in East Africa. The Symposium was specifically designed to explore and celebrate practical applications of the animal health topics and strategies explored in the curriculum, showcasing transferable ideas and providing opportunities for participant interaction within and across cohorts. This event, which was attended by over 50 participants and key regional program partners from East Africa, gave participants across the three cohorts and both countries the opportunity to:

- Showcase how their experience in ProgRESSVet changed how they approach work challenges to animal health and food safety
- Showcase other ideas/innovations related to animal health and food safety
- Share and learn from others about how the veterinary service contributes to animal, human and environmental health
- Generate discussion amongst peers and strengthen professional networks and connections
- Explore the transferability of strategies across different contexts

The week-long event was first hosted in a dedicated Canvas site where participants could view each other’s work and interact in discussion forums, and culminated with presentation of the four best ideas (two from each country) as chosen by a panel of judges as part of a half-day long online symposium.

In response to the positive feedback and high demand from regional partners and program alumni in 2022, the Symposium has become an annual event, integrated into the activities of the newly formed ProgRESSVet Alumni Network. The second

annual Symposium was held on August 17, 2023, with nearly 50 program participants, partners and invited guests.

The Symposium’s recurring annual platform is instrumental in promoting local knowledge creation and fostering dynamic discussions among participants. The goal is to effectively promote the transfer of this knowledge to practical implementation in the field, making meaningful contributions to improving sanitary conditions and facilitating animal and animal product trade in East Africa.



Participants attended the first ProgRESSVet Symposium organized in the region. | Screenshot provided by: Denis Enywaru




**Dr. William Olaho-Mukani**  
ProgRESSVet Symposium  
Keynote speaker

Dr. William Olaho-Mukani is a distinguished Ugandan veterinarian and researcher with notable achievements in veterinary medicine, biosecurity, and global health. He holds a Doctor of Veterinary Medicine degree from Makerere University and a PhD from Nairobi University. Throughout his career, Dr. Olaho-Mukani has held significant roles, including Director of Research at the International Livestock Research Institute (ILRI) in Kenya and Director of Animal Resources in the Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF) in Uganda.

His international involvement includes serving on the WOA Regional Commission for Africa from 2002 to 2010, where he held key positions such as Secretary-General, Vice-President, and President. He also led the Transboundary Animal Diseases and Zoonoses Programme at the African Union (AU-IBAR) in Nairobi, Kenya, starting in 2010. Currently, Dr. Olaho-Mukani is the Anti-Tick Vaccine Production Manager under the COVAB-Makerere University/Alfasan Partnership and serves as Chairman of the NARO Governing Council. His dedication and contributions continue to impact the veterinary field positively.

Dr. William Olaho-Mukani served as the Key Speaker at the inaugural ProgRESSVet Symposium, where he delivered a keynote address titled “Veterinary Services in East Africa: Challenges and Opportunities to Improve Sanitary Conditions and Trade in Animal and Animal Products.” His expertise in veterinary medicine and extensive experience in the field made his keynote speech a valuable contribution to addressing the region’s critical issues related to animal health, biosecurity, and trade.





SYMPOSIUM 2022

CELEBRATING KNOWLEDGE  
TRANSLATION TO THE FIELD


18-27 JULY

UGANDA

KENYA

MINNESOTA

ONLINE SYMPOSIUM 2022



### Change Of Approach To Disease Outbreak Investigation In Nyakach Sub-County

Dr. Anne Anyango Olang'o

Nyakach Sub County is one of the seven sub counties in Kisumu County located at the border of Homabay County to the South, Kericho County to the East and Lake Victoria to West. Being at the border renders the animals prone to disease outbreaks and spread to and from the other counties. A successful stakeholder engagement process as informed by the stakeholder engagement tools learned during ProgRESSVet has resulted in well coordinated efforts and positive change in disease outbreak investigation in the sub-county. Among others, stakeholder engagement has resulted in proper laboratory diagnosis, proper disposal of the carcasses using an excavator from the department of public works, continuous surveillance and meat inspection at the slaughterhouses. There are also ongoing multi sectoral barazas in the affected areas to sensitize the farmers on biosecurity measures, food safety, responsible use of pesticides, stocking densities, conflict resolution among others.




### The Importance Of Stakeholder Engagement In The Planning For Rabies Prevention And Control

Dr. Marilyn Karani

Rabies in Kenya is an old disease having been first diagnosed in 1912. Globally, 59,000 people lose their lives to rabies annually with most of the deaths occurring in countries where public health resources are inadequate (Times 2022). Turkana County in Kenya is one such area due to the nomadic nature of the Pastoralist community accompanied by low socio-economic status and a limited health infrastructure (Griffith, et al. 2020). This presentation is an attestation of the impact ProgRESSVet has had in filling the gaps in rabies eradication efforts in my work jurisdiction; especially having recently been leading a team of women veterinarians in a five-year rabies eradication programme.

Photo provide by: Marilyn Karani. ProgRESSVet Alumni (Cohort #2), chairwoman of KWVA.



### Electronic Livestock Movement Permits (e-LiMP) For Uganda

Dr. Auther Tamale Waswa

Livestock movement forms a great part of the livestock trade and breeding in Uganda. This process, if not properly managed through veterinary inspection, verification and certifications by issuance of movement permits, poses risks of transmission of transboundary animal diseases in new territories. In an effort to replace the tedious paper based system, this is a presentation of the electronic livestock movement permits (e-LiMP) implemented to fasten the process of issuing movement permits and most importantly create a central livestock movement database with information regarding livestock movement in the country.

Photo provided by: Dr. Author Tamale. Border movement of livestock. Courtesy of FAO Uganda



### Assessment Of Burden Of Aflatoxin And Drug Residue Contamination In Milk Produced On Dairy Farms In Wakiso Sub County Of Wakiso District, Uganda.

Dr. George Muhanguzi

Livestock movement forms a great part of the livestock trade and breeding in Uganda. This process, if not properly managed through veterinary inspection, verification and certifications by issuance of movement permits, poses risks of transmission of transboundary animal diseases in new territories. In an effort to replace the tedious paper based system, this is a presentation of the electronic livestock movement permits (e-LiMP) implemented to fasten the process of issuing movement permits and most importantly create a central livestock movement database with information regarding livestock movement in the country.

Photo Source: International Atomic Energy Agency - Uganda National Bureau of Standards (UNBS), showcasing routine testing and monitoring of veterinary drug residues.

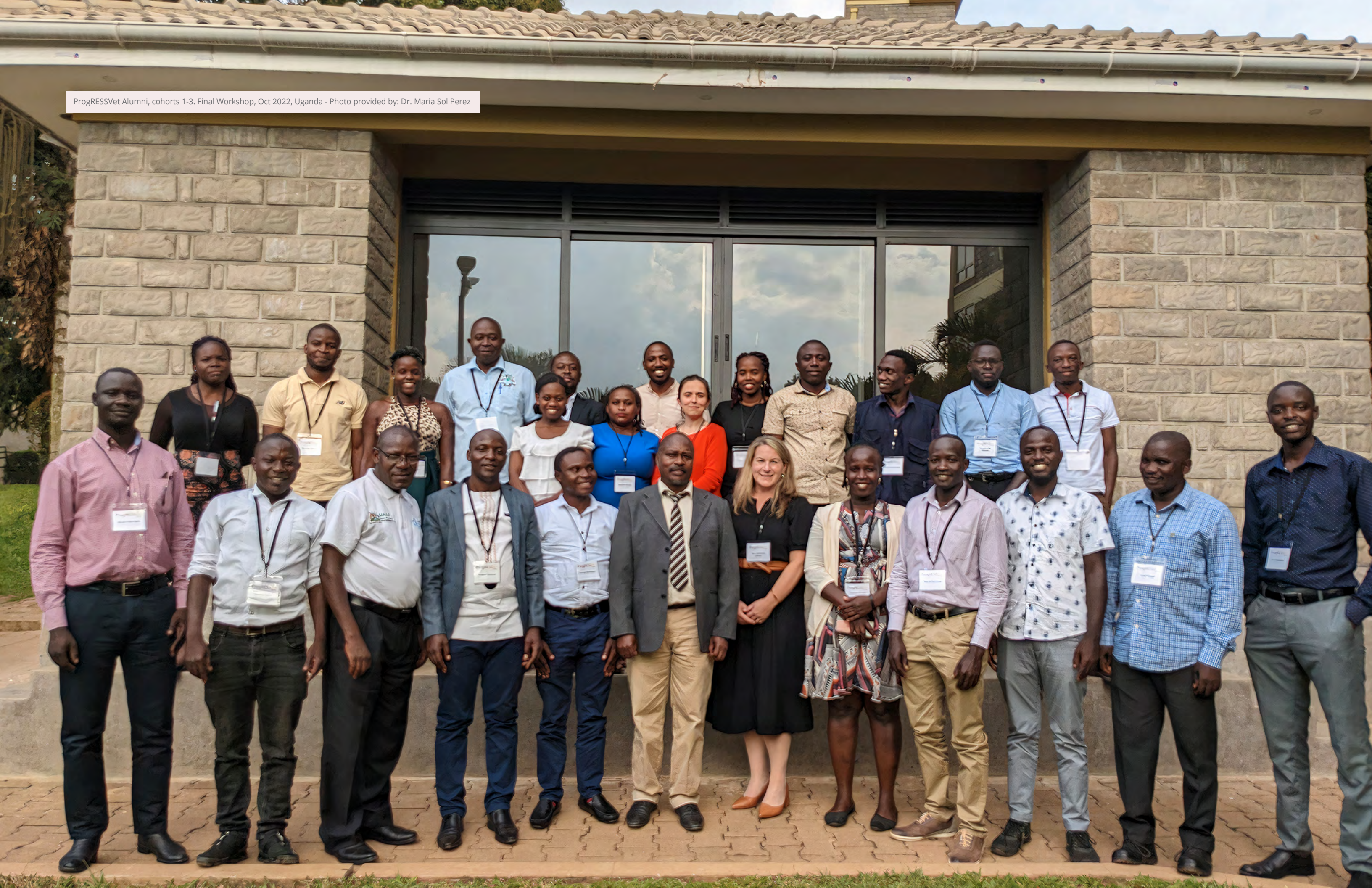




ProgRESSVet Kenya Alumni, cohorts 1-3. Final Workshop, Nov 2022, Kenya Photo provided by: Paul Kangéthe



ProgRESSVet Alumni, cohorts 1-3. Final Workshop, Oct 2022, Uganda - Photo provided by: Dr. Maria Sol Perez







KWVA representatives during the final workshop in November 2022, Nairobi - Photo provided by: Paul Kangéthe

KWVA and DVS Kenya representatives, and CAHFS team in the opening of Nov, 2022 Workshop, Kenya- Photo provided by: Paul Kangéthe

# Final Workshops

> The ProgRESSVet East Africa in-person workshops, held in October and November 2022 in Kampala and Nairobi, served multiple purposes. The events marked the conclusion of training for Cohorts 1-3 (2020-2022), provided an opportunity to discuss concrete next steps for the proposal development process, and explored opportunities for establishing a ProgRESSVet Alumni network for ongoing collaboration.

**Highlights of the 2022 meetings included:**

- Celebrating the accomplishments of ProgRESSVet Uganda and Kenya participants, including sharing of high rates of engagement and performance in the eBook courses and awarding participant certificates.
- Presenting and discussing preliminary evaluation findings, including results of surveys and interviews, and other measures of program impact.
- Conducting focus group activities and discussions to explore characteristics and supports enabling optimal functioning at both central and local levels of the veterinary services, which provided valuable insights for improvement.
- An engaging brainstorming session explored the possibility of establishing a ProgRESSVet Alumni Network with various areas of interest, including ongoing support for proposal development, involvement in education & training activities,

cross-organizational collaborations, and policy work. Participants expressed interest in expanding the training and support for proposal development and submission, as well as the need for political will and adaptive management for successful project implementation.

- Sessions led by Regional Partners included:
  - In Uganda | The Continuous Professional Development (CPD) and UVB Governance session, led by Dr. Samuel Okech, provided valuable insights and discussions on the new CPD framework and future steps for formalizing CPD in the country.
  - In Kenya | In his plenary talk, Dr. Charles Ochodo presented the Kenya PVS gap analysis report and highlighted its implications, the role of WOA and Kenya Veterinary Service, and addressed challenges to effective service delivery of veterinary services in Kenya.

After overcoming the challenges of the COVID-19 pandemic, the in-person ProgRESSVet workshops served as a testament to the resilience of the participants and the team. These workshops provided a meaningful opportunity for human interactions, fostering a strong sense of collaboration and

determination to enhance animal health, food safety, and public health in East Africa. The valuable conversations and connections formed during these workshops will continue to inspire and propel the ProgRESSVet East Africa initiative towards a promising future.



Program participants during the final workshop in November 2022, Nairobi  
Photo provided by: Paul Kangéthe



# Partner feedback

The following quotes emerged in conversation between key partners and a CAHFS evaluation consultant to solicit feedback regarding the impact of the ProgRESSVet East Africa. Conversations also explored areas for improvement and increased cooperation. Additional evaluation data, including interview transcripts, are available upon request for anyone who wishes to learn more about the partners’ perceptions of the project.



**Dr. Deo Birungi Ndumu**  
*Principal Veterinary Officer (PVO); Epidemiology, Disease Surveillance and Investigation.*  
National Animal Disease Diagnostic and Epidemiology Centre (NADDEC)  
Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)  
Uganda

**On pertinence and alignment with the veterinary services training priorities:**  
*“This opened the major door for a collaboration between Makerere University and partners, in really providing that critical capacity building for nations like ours, I think that comes out well, and such programs need to be really supported and run on on a regular basis. Because this is not just a collaboration, but it’s really that there is an element of capacity building. And also, you know, people get exposed, even the people like ourselves [at MAAIF], who are coordinating the whole on our part, in different parts, [on] how to write programs that could in future impact positively trends, nationally, regionally and globally.”*  
  
*“This particular [program] was addressing SPS issues, and it was really spot on, I thought. Having worked for the Ministry for the last 27 years plus, I obviously know that this is a critical area for our kind... you don’t get this in your training at a basic Veterinary and Science University. Getting it in-service is critical, especially for those who are in those critical positions. And they were basically being provided the necessary tools to equip them to make sound decisions in their day-to-day jobs.”*  
  
*“We are thankful that the logistics could be provided [and] how they were provided, because the input was from all sides. We were inputting coordination as the ministry, but our staff were being trained. We [a]re trying to convert this into a credit points system [formal CPD] so that wherever they are...they know they have a weight on the career as they proceed.”*  
  
*“This training came with the idea that people get trained and then they [attempt to] get funding ... to implement a project. That was brilliant. And then a brilliant, really distinct way of thinking. ...By the time they implemented this program, they definitely were filling in a very big gap. A glaring gap, in as far as capacity building is concerned in the Ministry of Agriculture.”*



**Dr. Charles Ochodo**  
*Deputy Director of Veterinary Services*  
Directorate of Veterinary Services Kenya

**On building capacity using innovative methods:**  
*“Number one, the project builds the capacity of our veterinarians to respond to the issues that are topical in the field of work. These are trade issues, disease control issues, biosecurity issues, food safety issues, these are the issues in the field, and the project was really strong. Secondly, the way it was implemented, you see, the online method was very good, because number one, to us relatively inexpensive. So we were able to train so many cohorts, consisting of so many officers. And that was very good. ...We were able to train so many people in a wide area of topics. And the training itself was also flexible.”*  
  
*“All of the participants were able to group up and come up with the proposals that have been used. Some of the counties have been able to take up those projects in their development plans, and they have used them to handle diseases, particularly the idea of involving the private sector in control of diseases, particularly through vaccination, that has been taken up by a number of counties. And so this mentorship, even in project development, has really enriched the veterinarians in Kenya, I think. Most of the country now is informed in the terms of these issues we are talking about. ...People have been informed, they now understand better some of the issues that did not come out clearly in school. And these are some of the issues that were raised by the World Organization for Animal Health in their evaluation. And so as the country tackles them, we are in a way trying to help ourselves by dealing with practical issues in veterinary services in the country.”*  
  
*“Having gone through the process, including the actual learning [as a participant myself], I think the project has been very useful in informing the current veterinarian about the topical issues in veterinary services, because at school, people learn a wide range of subjects that are, of course relevant in the field. But there are certain aspects that do not come out very strongly in school.”*

# Partner feedback



**Dr. Marilyn Karani**  
Chairperson  
Kenya Women's Veterinary Association

**On creating pathways for female veterinarians:**

*“Over the years, Kenya Women’s Veterinary Association was kind of like an “old veterinarians” thing, but we have a lot of young vets joining the association, because of the vibrance. I think ProgRESSVet has been very meaningful, because people have really actually seen capacity built. [ProgRESSVet Kenya] gave us slots for women veterinarians. And that was so beautiful, because then we were able to ... nominate them for this capacity building. So there's been a lot of change in the association [KWVA], in that people are motivated to join the association. So they see their role, you know, they see that it is possible for you to surpass or to overcome the obstacles that might be there as a lady. You know, the whole gender issue is a big one and complex, and [to] be able to lead in my space [through] leadership and management and management skills, we have seen them come through through that ProgRESSVet course.”*

**On the nature of the partnership:**

*“I think there can be very many partnerships. The thing that I've seen, which fails, in either partner, in the partnership, is trust. So we've seen partnerships which have crumbled, because one partner was not open. And so along the way, many other things came up, which were not there initially. So I would say, trust is important. And we are very lucky to have met this, you know, this team from Minnesota. They've been open, they build trust, they tell you “this is the way [it will] go.” And we agreed, it will happen just exactly that way. So I think that if they continue this way, trust, trust, transparency, and kind of like finding a middle ground in terms of having a common goal. These partnerships can be strengthened.”*

*“I think we are 50/50, we are equal. [M]y experience has been that each one of us brings the same strengths to the table. And so I think it's been a 50/ 50% partnership.”*

*“ProgRESSVet covered, very technical issues, you know, aligned to veterinarians, but there are many other issues that build a human being to deliver optimum service in terms of serving the communities. So, I see a future where there is so much else we can do together.”*



**Dr. Frank Mwiine**  
Professor & Principal  
College of Veterinary Medicine, Animal resources and Biosecurity (CoVAB)  
Makerere University  
Kampala, Uganda

**On building an equitable model for collaboration and for ongoing training:**

*“[W]hat is our goal in terms of all these projects that we write over many years? Well, it is to have the impact itself because the small seed which is shown here, is likely [to] become the problem solvers of your own problems, locally. Very good, it's what we need. They see. But they see it within their eyes. And eventually they're supposed to actually provide the solutions.”*

*“If we could partner, transferring some of the online teachings to Makerere to host it—why not be the local ones to have those terms of reference, to disseminate this information, recruit and train, where the train[ing] of trainees resides? We are not lacking in that capacity. Colleagues are there, they can be identified. We have worked, for example, the online courses development, and also dissemination and teaching...Praying that they can engage, they have that information that can address their local problems.”*

*“There is another thing which I have identified; it is good always to be taught by other experts across the world. But it is also good that the local experts that have gained the skills teach their own people, that they are listened to. They are heard, they are believed in.”*

*“The local expertise can be engaged, it should be engaged, it should be actually encouraged to be engaged, and, it should be engaged genuinely.”*



# Participant Challenges and Adaptations

- > Participants faced a number of challenges completing ProgRESSVet, many of which were precipitated by or intensified by the COVID-19 pandemic and related impacts on societal functioning. The next section details the most commonly raised issues in the participant interviews:
- **Competing priorities**, including concurrent work and family responsibilities
  - **Program intensity**, specifically the amount of course material, and volume of/complexity of new concepts
  - **Internet and power connectivity issues**, particularly in rural sites
  - **Technological challenges** with devices, apps and platforms for networking
  - **Resources to support training completion**, including the use of additional data and network bundles and travel to town centers for stable power and internet connections
  - **Logistics of team work**, including schedules and differing geographical locations of group members
  - **Effects of the COVID-19 pandemic**, with particular note of the challenge of not interacting in-person with fellow cohort members or the ProgRESSVet team

In the post-program interviews and open-ended survey responses participants raised a number of strategies they developed and implemented to overcome the challenges they encountered. The following themes were prevalent:

**Peer learning and moral support** emerged as important strategies for navigating challenges. In eBooks 1-4 surveys, conducted across the cohorts, more than 95% of respondents agreed that interactions with other participants within the course were instrumental in their success with the program. Over 65% of the respondents described these interactions as extremely or significantly beneficial, underscoring the invaluable role of peer engagement and support in enhancing the overall learning experience.

*“With the help of my colleagues, that's how I managed to get around those challenges”.*

*“We would encourage ourselves and say let me push on”.*

*“Most of the colleagues that we were with in Cohort 3, were senior Vets whom we got to meet, and some of them we worked together in the same institution. So they would encourage me and I would learn from them”*

*“I would be able to hear, listen as we interact in the group”*

**Team-building strategies for group work.** Participants reported cooperating, accommodating and sharing responsibilities to support the collective learning experience.

*“We would share our responsibilities”*

*“I think by discussing amongst the group members... we always had a time that worked for all of us”*

*“I think we’re all willing to sacrifice because there is a day we went on until 10:00 in order to complete the material”*

Participants also highlighted a **high level of personal commitment and corresponding behaviors** to their ability to continue and complete the program, particularly as they juggled demanding work and personal schedules. This involved sometimes working at night or on weekends to meet assignment deadlines.

*“Sometimes I would work overnight or at times early morning to ensure you keep up with the pace of the course and also cater for the office duties and the farmers”*

*“What really helped most is planning and commitment, especially in time management”*

Other participants highlighted the **flexibility of ProgRESSVet policies and procedures** as helpful.

*“With the flexibility of the ProgRESSVet team, you can request for a few days to catch up”*

*“The learning was interesting and what I like most is the design that it could give you if you are late, maybe because you are busy doing other things you can request just as long as you write and explain, the coordinators were flexible enough to give us room”*

*“I got an unexpected medical issue and I had to go through surgery at some point. So at some point that I was bedridden and I couldn't also engage fully And at that point there was so good cooperation with the ProgRESSVet team at the University of Minnesota because I communicated to them and they would understand and they gave me a waiver of some assignments”*

*“Yeah, the training support team was good. It was quite friendly and they could respond. They could respond whichever time you’re sending an email. Within a short time, the team would respond and give guidance”*

Many program participants were situated in remote locations where internet connectivity and electricity access is limited. Participants employed a number of strategies to offset this challenge including occasional travels to the nearby cities where services are more available. ProgRESSVet also provided small data bundles to offset participant use and to promote connection to the online learning platform.

*“Thank you for the Internet bundles you graciously shared with us. Whenever the Internet was down we would still use our phones”*

*“I had to identify a specific office corner where I will get consistent internet. So that is where I usually sit”*

*“Sometimes I'm supposed to travel from the village to go to town so that I could be able to access power and meet some deadlines”*

# Model Validation: Building A Systems Thinking approach

> The CAHFS team began *Leveraging PVS Gap Analysis to support Veterinary Service capacity* by conducting a systematic mapping of intended program impacts across stakeholders, focusing on actions to address issues highlighted in the WOAHS PVS Evaluation Follow up reports for Kenya (2019) and Uganda (2018). As we delved deeper into the analysis, it became evident that this project presented a **compelling opportunity to enhance our systems approach and orientation to the training program, effectively addressing system challenges.**

ProgRESSVet has promoted a systems thinking and systems action approach to:

- Aid participants in better understanding and describing the system in which they work
- Support learners in becoming more effective decision-makers within the system
- Create institutional capacity to tackle system challenges

Within the College of Veterinary Medicine at the University of Minnesota, one of CAHFS functions and outreach missions is to translate scientific and academic research into actionable information and guidance to those individuals who support the food system and public health. Adopting the same mindset and approach, the team sought to make the systems approach more accessible by:

- Exposing participants to diverse examples of complex systems

- Equipping learners with tools to assess those systems in a methodical manner
- Presenting opportunities for putting into practice these tools and receiving feedback

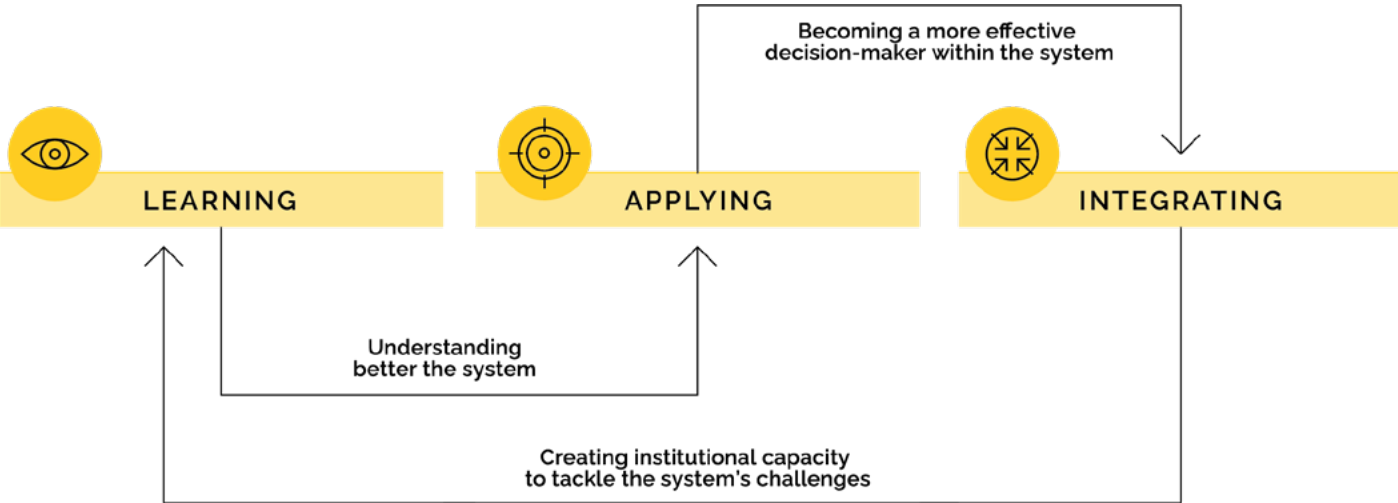
From their initial orientation course, ProgRESSVet participants were introduced to the goal of, and the challenges related to, developing a “systems thinking approach.” This was framed for learners as:

Systems thinking, also called "systems literacy," is considered a critical set of skills to approach complex problems in a comprehensive way, promoting better solutions. However, for many of us, the term "systems thinking" may feel far-removed from reality. The truth, however, is quite the opposite. These skills refer to the ability to view issues holistically and the insight to see non-obvious connections between things while understanding why they behave a certain way.

Through the reading of papers, participation in discussion forums, and completion of activities such as a Policy Field Analysis, Polarity Mapping, global case studies, and value chain mapping, participants explored the dimensions of the system in which they work as members of the veterinary services.

[Click here to access learning objectives and assignments listed in this section](#)

Figure 10 | Model depicting the utilization of knowledge and skills by the participants.



Our initial impression is that systems thinking has resonated with participants as an appropriate and applicable lens for understanding and approaching the work of veterinary services. The following pages highlight the results of our evaluation efforts to understand the effectiveness of this approach, attempting to understand through evaluation activities whether our content, delivery methods and utilization-focused design aided participants in building their own systems thinking approach, and of more importance, to build the knowledge and skills to effectively act within the broad system of their work.

Specifically, we examined:

- **Content:** *Did the curriculum cover topics of relevance to the system in which participants work?*
- **Delivery:** *What aspects of program delivery supported participants' awareness of their system of work?*
- **Utilization:** *In what ways were participants able to utilize new knowledge and skills within their system of work to effect positive change?*
  - Learning
  - Applying
  - Integrating

### A Note on “Capacity Building”

One of the practical challenges to engaging in capacity building work is that few frameworks exist to guide profession-specific efforts. Projects such as this one thus become important places to collect information, to identify gaps, and to evaluate the effectiveness of approaches.

As an academic partner, University of Minnesota is interested not only in what results can be achieved, but also how capacity can be built and why certain approaches are more successful than others.

Our team is also invested in contributing to the discussion of how “capacity building” is defined, and who sets its course. Influenced by the scholarship of education reform, we believe that capacity building goes beyond the transmission of knowledge or the building of infrastructure to absorb that new knowledge. In professional development we advocate that true capacity building is rooted in the creation of new local knowledge (per Mestenhauser, 2012; Jooste, 2022) and integration of that knowledge for system improvement.



# Content

> The topics covered in the eBook curriculum aimed to specifically address areas of need as identified in the PVS evaluation and gap analysis activities in Kenya and Uganda and in line with stakeholder concerns raised in initial and ongoing planning meetings. Specific course contents were determined by the Center for Animal Health and Food Safety staff and the global network of CAHFS experts and then approved by local partners.



ProgRESSVet participant with farmers - Photo provided by: Anne Olang'o

In follow-up surveys and interviews, participants were asked to identify concepts and related assignments from the curriculum that they perceived as being particularly beneficial to their learning. A total of four open-ended

questions helped to elicit responses regarding which content areas and concepts carried value for their learning and eventual application:

**Survey questions**

- Have you utilized any of the concepts in the ProgRESSVet eBooks in your current professional practice or in another area of your life (i.e. volunteer work, faith community, or similar)?
- How has the program as a whole impacted how you approach challenges to animal health and food safety in your country?

**Interview questions**

- How effective was the structure and delivery of the ProgRESSVet curriculum in responding to those professional goals?
- Have you had the opportunity to apply any of the knowledge or concepts that you learned from the program/training into your daily work within the VS?

Table 4 | Course concepts ranked by participants

Content areas/ concepts	Frequency of mention									
Disease prevention & control planning										
Certification and accreditation										
SPS measures of the WTO										
Food hygiene and food safety										
Risk analysis and risk assessment										
Stakeholder analysis										
International trade										
Biosafety & Biosecurity										
Outbreak investigation										
Policy field mapping										
Polarity mapping										
PVS gap analysis										
The Tripartite Zoonoses guide										
Proposal writing										

*"A lot of the material that we gathered from the training, like on PVS gap analysis, you don't access and you never learn in school, in university."*

*"The resources that were shared, like the Tripartite Zoonosis Guide and others, were helpful. That guide on its own helped me a lot in my new appointment."*

*"Some of the items which we learned from the disease control perspective in relation to importing and exporting countries, they came in quite handy in the process of what we were planning to implement...as a country."*

# Delivery

> Building on our hypothesis that **preparing participants to address system challenges would require a systems approach and a systems orientation to the training**, three dimensions of program delivery were designed to support the development of participants’ awareness of the veterinary services system and to gain exposure to differing perspectives and levels of VS work.

**1) Intentional peer interaction and peer review of ideas**

A number of opportunities were created to encourage the exchange of experiences and ideas. Using the online platform, and later the Rounds sessions, a peer network was developed to prepare and equip participants with the mindsets and skills to be effective in the group-driven proposal development phase. These activities also sensitized participants to the varied work conditions of their peers across different roles and places.

*“[O]ne thing came in handy at that point and I'm grateful for the structure, especially after we came to the finishing point of eBook 4. There were a lot of group activities. For me, I would say that came in handy because now it was not just an individual effort, but now it was a group activity and one had to coordinate with others, and we would encourage each other to be able to finish”*

*“Those group exercises were very good, beneficial, helped us to interact, and get perspectives from colleagues. Yes. It was an enriching and good learning set up”*

**2) “Know and apply” learning activities**

The following activities were used throughout the curriculum for learners to analyze, discuss, and learn more about real-life system dimensions and to encourage learners to actively apply new and existing knowledge in an exploratory way, not necessarily bound by rigid course assignments.

- *Common Case: Foot and mouth disease (FMD) management in South America*

An active learning Common Case that provided an authentic example for participants to build critical thinking skills and knowledge of animal health systems through:

- deconstructing and evaluating components of other national FMD control efforts
- critically reviewing strengths and opportunities in the approaches
- exploring transferability and adaptability of the methods to local contexts and other complex challenges for animal health

See report Annex for sample assignment example.

- *Test Drives*

Using the qualitative “expert elicitation” method, the Test Drives dedicated a space for learners to share their own experiences and evaluation of risk factors and strategies for mitigating risk. Data from this activity was published in *Frontiers in Veterinary Science* (2021) as [“One coin, two sides: eliciting expert knowledge from training participants in a capacity-building program for veterinary professionals.”](#)

**3) Involvement of local partners**

- Local partners were invited to review the training content, which opened a valuable dialogue regarding the relevance of the training to national priorities. These conversations were sustained through the various cohorts, informing adjustments in line with the ongoing feedback. In Kenya, Dr. Charles Ochodo (DVS) and Dr. Marilyn Karani (KWVA) completed the training and also gave feedback on program delivery methods and critical adjustments for the East African professional development context.

- As previously noted, local partners also reviewed participants’ proposals, providing leadership to contextualize and shape proposals in an informed and timely manner.

# Utilization

> When considering Utilization in the ProgRESSVet program, we focused on the practical application of newly acquired knowledge and skills through the systems thinking approach within the participants' sphere of work.

Significant emphasis was placed throughout program implementation to gather the evidence to track the diverse milestones achieved by participants within the learning process and assess whether the program achieved its objectives of equipping participants with a comprehensive understanding of their working system, thereby enhancing their abilities in system analysis and effective decision-making. With this in mind, the data collection strategy of the monitoring and evaluation plan was crafted to gather evidence showcasing the effectiveness and relevance of the systems thinking approach in the following ways:

- **Assessing Relevance:** These efforts helped determine the extent to which the program's curriculum, content, and delivery align with the participants' real-world work situations. By gathering feedback from participants, the team can tailor the existing and future programming to the specific needs and challenges faced by veterinary services professionals.

- **Measuring Skill Development:** Tracking participants' progress and learning outcomes to showcase the development of systems thinking skills. Evaluating their ability to identify connections, address complexities, and make informed decisions demonstrates the practical impact of the program.

- **Documenting Field Application:** ProgRESSVet encourages participants to explore opportunities to apply their new knowledge through case studies, field analyses, and practical activities. Through the monitoring and evaluation process, and the organization of the ProgRESSVet Symposium, it was possible to capture concrete examples of how, after ProgRESSVet East Africa, systems thinking has been implemented to address challenges and achieve positive change in participants’ veterinary services work.

The evidence presented in the following pages was gathered through a multi-layered data collection process that included interviews with program participants and in-depth, in-person discussions during the workshop focus groups.

This evaluation approach is particularly significant as there are limited frameworks available for evaluating the impact of capacity-building projects and fewer still approaches for understanding capacity building within the context of veterinary services. Thus, we adopted an inductive approach, which allowed us to begin developing a foundational framework for future evaluation efforts.

## Forthcoming Prospect | ProgRESSVet Alumni Network

Longitudinal evaluation, especially for capacity-building projects, poses considerable challenges. However, with the establishment of the ProgRESSVet Alumni Network, we envision the collection of a substantial body of evidence regarding the mid- to long-term impact of our training intervention. This alumni network will serve as a valuable resource, enabling us to track the progress and contributions of our participants over time, which would otherwise be much harder to gather in the upcoming years, as well as the impact of ProgRESSVet learning on professional progression and in terms of service delivery. Through this ongoing engagement with our past participants and with key stakeholders, we aim to understand the lasting effects of the ProgRESSVet program and continuously improve our approach to capacity building in veterinary services in East Africa.



> The following is a selection of participant feedback gathered through surveys, interviews, and in-person interactions that exemplify the [model described on Page 69](#), showcasing instances of learning, applying, and integrating the systems thinking approach within participants' work:

DIMENSION 1   International/Regional markets landscape — Connection with local value chains	
<p>Given that regional and international livestock trade is an important aspect of the economies of Kenya and Uganda, and was the key focus area for the program, participants were exposed to various topics and exercises that allowed them to explore their regional market in the context of international trade. An example was polarity mapping, designed to help learners evaluate potential benefits and problems in complex systems with competing actors and priorities that play against each other when making a decision, especially when both alternatives have relatively equal validity.</p> <p>To most participants, it was eye-opening to understand how their individual contributions could shape their respective country’s ability to participate in the international livestock market.</p> <p>By the end of the Curriculum Phase, survey results revealed that 100% of the respondents across cohorts had successfully applied the concepts learned from the eBooks to enhance their professional practice. Remarkably, over 70% of the participants described the program as having significantly or extremely improved their practice. Based on their testimonies, there is evidence that participants were able to apply the theoretical knowledge learned to solve practical problems in their respective work environments. By understanding the needs of the local value chain and applying relevant knowledge, they were able to create solutions that improved the delivery of veterinary services in their communities.</p>	<div><div>LEARNING</div><p><i>“A new horizon with things that I had not internalized or thought of before like the international market and the need to have a global view of the products that we produce”</i></p><p><i>“Knowledge wise I'm not the same as when I hadn't interacted with this course and I will say especially on the part of the international trade policy, that aspect, I think I wasn't so clear with it but then interacting with ProgRESSVet, especially in eBook 1, I was able to get a good grasp of it”</i></p></div> <div><div>APPLYING</div><p><i>“A new horizon with things that I had not internalized or thought of before like the international market and the need to have a global view of the products that we produce”</i></p><p><i>“Knowledge wise I'm not the same as when I hadn't interacted with this course and I will say especially on the part of the international trade policy, that aspect, I think I wasn't so clear with it but then interacting with ProgRESSVet, especially in eBook 1, I was able to get a good grasp of it”</i></p></div>

DIMENSION 2   Policy Environment - Alignment with international standards	
<p>By engaging with course content such as policy field mapping and the WOAHP Performance of Veterinary Services (PVS) pathway, participants developed a profound appreciation for the significance of good governance in ensuring animal health and food safety.</p> <p>One of the participants expressed the realization that even as non-policy makers, they, as veterinarians, possess the potential to effect positive change by sharing valuable insights and information with those in positions of influence. Starting at the individual or local level, their actions can create a ripple effect, contributing to improvements in the broader policy environment.</p> <p>This newfound awareness highlights the transformative impact of the ProgRESSVet program in instilling a systems thinking approach, familiarizing learners with other actors and roles in the system, and empowering participants to recognize their potential as active agents of change within the veterinary services sector. Through their understanding of policy dynamics and governance, program participants are now better equipped to advocate for improved practices and policies, thus contributing to the overall advancement of animal health and food safety in their respective regions.</p>	<div><div>LEARNING</div><p><i>“One of the things that I learned is that stakeholder involvement is very critical, which is a skill that I acquired from ProgRESSVet. With this, I managed to convince the program because they were asking us to write an innovation.”</i></p><p><i>“(.) some of the tools that we got to learn about that's really important in bringing everyone on board, for example, the policy field analysis tool and the stakeholder analysis mapping will be quite important these days.”</i></p><p><i>“Some of those things are global or bigger than my unit county and would need collaborations with our immediate neighbors and the regional blocks”</i></p></div> <div><div>APPLYING</div><p><i>“Before ProgRESSVet, I just used to hear about PVS but really didn't know what it entailed. But then ProgRESSVet enabled me to know what it was all about. And so the next time I was involved in part of the team that was looking at the gap analysis for the country, then I was in a better position to contribute and even see how we can address some of those gaps”</i></p><p><i>“But to be a bit specific, I remember the time we had this bill, the public health bill in parliament, and they were asking for input. The Uganda Veterinary Association was asking for input. So if you look at what I submitted, most of it was ideas generated from ProgRESSVet”</i></p></div>

DIMENSION 3   Coordination & Cooperation - Between Sectors, between Local and Central	
<p>ProgRESSVet alumni have embraced the task of contributing to multi-stakeholder and multi-sectoral coordination, and their experiences exemplify how they are actively applying their knowledge in practice. Equipped with the skills acquired from the program in identifying and engaging stakeholders, conducting joint risk assessments, and policy mapping, participants have emerged as adept advisors, communicators, and collaborators across diverse sectors.</p> <p>Their new abilities have allowed them to actively participate in processes that transcend traditional boundaries, contributing to decision-making that spans various sectors. These sectors include local public authorities, value chain stakeholders, private practitioners, and others. Moreover, they have come to fully grasp the indispensable value of stakeholder involvement and have swiftly adopted this approach as an integral aspect of their work.</p> <p>When asked whether they have applied the stakeholder analysis learned and presented during the proposal development process in their current work or other real-world challenges, 23 participants of the total (74) shared that they have indeed put this valuable knowledge into practice by the time of the culmination of their program. This feedback highlights the tangible impact of the ProgRESSVet program and underscores the efficacy of the stakeholder analysis approach in their day-to-day work.</p>	<div><div>LEARNING</div><p><i>“One of the things that I learned is that stakeholder involvement is very critical, which is a skill that I acquired from ProgRESSVet. With this, I managed to convince the program because they were asking us to write an innovation.”</i></p><p><i>“(.) some of the tools that we got to learn about that's really important in bringing everyone on board, for example, the policy field analysis tool and the stakeholder analysis mapping will be quite important these days.”</i></p><p><i>“Some of those things are global or bigger than my unit county and would need collaborations with our immediate neighbors and the regional blocks”</i></p></div> <div><div>APPLYING</div><p><i>“The one that I am applying most is the stakeholder engagement. In everything that I do currently, I engage stakeholders unlike before, I just used to do things. If it is in my work plan, I will do it. But right now, if it is in my work plan, I will consult with the stakeholders. (..).”</i></p><p><i>“We normally do something called joint risk assessment where now we do an assessment for the zoonotic diseases but now jointly with the animal health and the human health. So that until now is still useful and I'm able to train others better in that aspect and contribute better when we have such kinds of discussions. For instance, I think in a few weeks time we'll be doing a training where we are doing a risk assessment for avian influenza. So I'll be in a better position than earlier in that activity.”</i></p><p><i>“I'm also coordinating the committee that works with the curriculum development. So I borrowed some of the knowledge that I gained by involving the stakeholders. So even when we are doing the curriculum, we are pulling in and actually, even in our training institute, we've been able to approach a few other stakeholders where we are working with them in partnership, especially assisting us more with aspects of the practicals for our students, because we may not be having everything in place. So I borrowed that idea and we've been able to implement that.”</i></p></div>

DIMENSION 4   Translation and adaptation of lessons learned - Promoting evidence-based design and decision making	
<p>With no “one size fits all” solutions for animal health, ProgRESSVet aims to instill in its learners the mindsets and capacity to translate and adapt cases, models, and mechanisms for supporting disease control to the local context to maximize viability and effectiveness, centered primarily in data and evidence to support a given position or decision. In order to do this, we used several regional cases (Ethiopia, Botswana, South Africa) to highlight animal health interventions and paired this learning with reflection questions and discussion regarding potential challenges and benefits to integrating these strategies into national disease control efforts in Kenya and Uganda.</p> <p>Additionally, we used the Common Case of FMD Control in South America to highlight another long-standing successful regional approach to disease control to promote critical thinking and active adaptation based on system factors. Active practice with theoretical content, such as calculating risk factors and then discussing the implications of that work, also aided participants in making important connections between course concepts and their daily work.</p> <p>Participants reported increased confidence in decision-making using these skills, as well as a broadening of their toolkits for daily practice. Other participants highlighted that using the evidence-based approach to explaining their work and reasoning also helped in the implementation of animal health measures.</p> <p>See report Annex for sample assignment example.</p>	<div><div>LEARNING</div><p><i>“Then I was pointing out maybe some of the courses or the topics that were quite helpful. (..) then the other topic on risk assessments and risk analysis for me even that was my most favorite part of the course because I had done some little training so just one week or five days of training on assessment and risk analysis and I never really got into quite grasp but from the notes and the questions and the examples that we had I was able to finally understand how well to go about it.”</i></p><p><i>“.. Ethiopia (..) has an association for the people who are involved in the production of live animals for meat and also the processors and the exporters,...I felt that was a major lesson that we ought to apply in Kenya”</i></p></div> <div><div>APPLYING</div><p><i>“Currently, we have various screening points to ensure that by the time the animals get to the export zone, they should be disease free such that the probability of a disease occurring within the export zone is as minimal as possible because we are aware of the implications”</i></p><p><i>“There is a lot more in terms of certification because that's something I do on a daily basis. Sometimes we had issues with importing countries. They would always raise issues about certification, but then from the training, I was reminded that certification is something that is in the OIE, and they describe what should be in the certificate. So sometimes when there are some of those complaints, it is not enough for us to argue but explain to them why something was done the way it was done.”</i></p></div>



INTEGRATING

Creating capacity to tackle the system's challenges.

> In addition to documenting instances where participants acknowledged learning and applying specific concepts and tools from ProgRESSVet, we sought to explore the next crucial step: how these newfound skills would be integrated by our participants to impact the organizational and institutional capacity of veterinary services — how to ensure that the VS is well positioned to carry out the functions of their charge and to also fulfill a broader mission and achieve longer-term goals. Although it is challenging to isolate the program's impact from various other variables in the system, we find significant value in this preliminary evidence, which highlights the successes our participants attribute to their involvement in the program.

Further Down the Road

Our goal is to continue documenting these dimensions of impact through the ProgRESSVet Alumni Network. By staying connected with our alumni and tracking their progress and ongoing work, we aim to gain deeper insights into how the integration of skills acquired in the program continues to drive positive changes within the veterinary services sector. The alumni network will serve as an invaluable resource in providing ongoing evidence of the long-term effects of ProgRESSVet, empowering us to refine and enhance our capacity-building approach to foster sustainable improvements in animal health, food safety, and public health in East Africa, and to contribute to academic and practical discussions regarding the measuring and marking progress for education interventions that aim to build capacity for veterinary services

**Institutional capacity** -- typically refers to the overall ability and readiness of an institution or organization to achieve its goals, fulfill its mission, and effectively deliver its services. It includes aspects such as the organization's resources, governance structure, policies, procedures, and management capabilities.

**Organizational capacity** -- usually focuses specifically on an organization's ability to carry out its functions and tasks efficiently and effectively. It may encompass factors like workforce skills and expertise, infrastructure, operational processes, and the ability to adapt and innovate.

Individual-Level Changes Leading to Tangible Contributions

> Through interviews with participants, we gathered compelling stories of positive change, in which they said ProgRESSVet played a significant role in transforming their perspectives, knowledge, and approaches to challenges within their fields of practice. While the program itself may not have solely initiated these impacts, the changes in their sphere of work experienced by participants contributed to and bolstered ongoing interventions already planned or underway. These testimonies further corroborate the evidence collected through course surveys, in-person workshops, and focus group

discussions, all aimed at showcasing significant achievements towards our program objective: Improving veterinary service performance in key competency domains.

In the following selection of stories, we witness how ProgRESSVet has empowered our participants to become drivers of positive change, reinforcing the program's vision of fostering sustainable improvements in animal health, food safety, and public health in East Africa.

Gaining proposal writing skills to support animal health interventions

Dr. Isaiah Nchagwa Chacha, a senior veterinary officer at Nyamira County, Kenya, demonstrated the practical application of ProgRESSVet's concepts when tasked with proposing an innovative idea to improve milk production in his county. Drawing from his experience in the proposal development phase, he utilized specific concepts like stakeholder identification to craft a proposal on East Coast Fever (ECF) vaccination. The proposal was approved and funded, allowing him to vaccinate approximately 1000 animals against ECF.

Dr. Chacha also attributes his achievement to the critical skill of stakeholder involvement. By incorporating this skill into his proposal, he successfully convinced the program of the value of ECF vaccination, leading to tangible benefits for farmers in the region. His experience exemplifies how ProgRESSVet equips participants with practical skills that yield positive outcomes in their day-to-day professional practice.

During the November 2022 in-person workshop in Nairobi, several other Kenyan participants shared similar efforts in seeking funding for ideas that had arisen from the program, for example, Dr. David Waweru shared that he and his colleagues from Machakos County secured funding from the annual budget and received additional support from the Federal Ministry of Economic Cooperation and Development, Germany, through ILRI. This funding was directed towards enhancing rabies control measures in Machakos County. These examples further underscore the effectiveness of adopting a systematic approach to structure and organize ideas into proposals, acting as a catalyst for the implementation of participants' innovative concepts.

# Systems approach to supporting international livestock trade

Dr. Ondieki George, a county veterinary officer in Lamu County, Kenya, has been actively involved in the export of livestock through Lamu port to the Gulf region. His team played a crucial role in designing the livestock export zone, focusing on establishing veterinary fences, a screening laboratory, and ensuring animal welfare during transit. These efforts were recognized when a local TV station reported the milestone of Lamu port's first local shipment of 15,600 goats and sheep to the Middle East on October 14. Working closely with Dr. Ondieki is Dr. Penina Wamboi, a chief veterinary officer stationed at Mariakani, near the major port of Mombasa in East Africa. Dr. Wamboi's team is responsible for conducting sampling and testing for export animals at the port of Mombasa.

Through their testimonies, it is evident that participating in ProgRESSVet not only equipped them with the necessary knowledge and skills to manage such export projects, but also deepened their understanding of the importance of sanitary and phytosanitary measures in international livestock trade.

*"Let me say it's consistent with my goals and it especially came in handy when the county was preparing a new livestock export zone and even in my proposal development, I really wrote it in respect to what we intend to do. And some of the items which we learned from the disease control perspective in relation to importing and exporting countries, came in quite handy in the process of what we were planning to implement this side as a country. So I can say that the course came in handy. When I was informed about it and said, okay, this one looks good, especially the first initial topic. We were talking about disease control targeting the international market. I really found it quite interesting". (Ondieki G.)*

*"We learned about a number of examples like FMD control and other transboundary animal diseases. Currently, we have various*



MV Banyas 1, a ship specially designed for carrying animals used to carry animals that were exported to Oman through Kenya's Lamu port.

*screening points to ensure that by the time the animals get to the export zone, they should be disease free such that the probability of a disease occurring the probability of a disease occurring within the export zone is as minimal as possible because we are aware of the implications. We learned about the implications from the importing countries that if they detect that maybe we have a sensitive disease like FMD or other diseases like lump skin disease reported within the facility, it will lead to trade sanctions and we lose a lot. So that's one area we were able to apply" (Ondieki G.)*

*"And just to mention our laboratory is located on the coastal region which is a very strategic place for export of livestock. So mostly because we are located just close to the port of Mombasa where most of the livestock leave the country, we are actually mandated to do sampling and testing for export animals. So with that at hand and then coming to interact with this course then it really puts us in a much better position and it really has impacted what we are doing and we are hoping for better improvement even as we continue". (Wamboi P.)*

# Systems approach to tackling animal health issues LIVESTOCK VACCINATION

Since participating in ProgRESSVet, there has been a notable change in the approach to delivering vaccination programs, as highlighted by Dr. Wandera Eric Chemiati, the County Director of Veterinary Service in Kericho, Kenya. He emphasized that his perspective on animal vaccination programs has evolved. Rather than look at his county in a silo he now vaccinates with an eye on the immediate neighbors, starting from individual farms to the county, national, and even regional levels. This shift in approach was echoed by feedback from participants in both Uganda and Kenya during the 2022 October/November in-person workshops held in their respective countries. Participants shared how this change in perspective has led to more effective transboundary collaborations in vaccination program implementation.

Dr. Obbo Bonifance, a Principal Veterinary Officer from Manafwa District Local Government in Uganda, shared his experience during the workshop, explaining that his district now collaborates with the neighboring district of Bududa. They synchronize their vaccination programs and jointly share resources to support uniform disease control. For instance, they work together to collect and transport vaccines from the national stores in the capital, Kampala, to farmers in the eastern part of the country. Kenyan participants also echoed similar experiences during their workshop.

Participants credited the ProgRESSVet program in their efforts to adopt a more interconnected approach to vaccination programs, leading to increased collaboration and resource-sharing between neighboring regions, ultimately enhancing disease control efforts in East Africa.



ProgRESSVet participant performing vaccine routine in cattle. Photo provided by: Dr. George Muhanguzi.

*"I like the idea of let's vaccinate with an eye, let's do disease control with an eye to our immediate neighbors, that is, from local to regional, to our country, to the greater eastern African region and to the world stage. Yeah, it's doable. Some of those things are global or bigger than my unit county that would need collaborations with our immediate neighbors and the regional blocks. I can't do it alone, but now I have a better perspective. I'm able to apply that in a way that would be beneficial to the people of my country." (Wandera E.)*



# Systems approach to tackling animal health issues

## DISEASE REPORTING

*“Another opportunity that I’ve applied is about the contribution that I made on improving the reporting of diseases.... I developed the reporting tool that was appreciated by the commissioner, and he has encouraged other people to use it.” (Kibaya Y.)*

Dr. Kibaya Yusuf’s initiative in developing a reporting tool, guided by the knowledge gained from ProgRESSVet, is a demonstration of the program’s potential for maximizing impact to also reach other colleagues. His tool’s successful adoption and implementation in the Kasese district, along with the recognition it received from the Commissioner at MAAIF, highlight the practical and tangible outcomes that can be achieved by the ProgRESSVet participants. That other veterinarians are now being advised to adopt this innovative reporting tool underscores its effectiveness and potential for widespread use.

Dr. Kibaya’s proactive approach exemplifies how ProgRESSVet empowers participants to create positive change within their veterinary services. His contribution is making a significant difference, serving as an example for others to follow in their respective regions. Through success stories like Dr. Kibaya’s, ProgRESSVet showcases its ability to foster impactful innovations that enhance animal health, food safety, and public health.



Chenais, E., & Fischer, K. (2018). Increasing the Local Relevance of Epidemiological Research: Situated Knowledge of Cattle Disease Among Basongora Pastoralists in Uganda. *Frontiers in Veterinary Science*, 5, 371424. <https://doi.org/10.3389/fvets.2018.00119>

# Efforts towards sustainability

> ProgRESSVet aims to continue its mission of enhancing animal health, food safety, and public health in East Africa even after the original funding period has ended. These strategies include the development of approaches to secure additional funding from diverse sources, ensuring a robust financial foundation for the program's continuity. This would entail building a business model with partners to support its operations, maintaining network connections and facilitating participants' efforts to deliver its intended benefits in the long term.

**Several key strategies aimed at building long-term of ProgRESSVet East Africa are already underway, including:**

- Partnerships and Collaboration: ProgRESSVet has cultivated strong partnerships with various stakeholders, including local organizations, academic institutions, and government agencies. These collaborations foster knowledge sharing, resource pooling, and collective efforts, strengthening the project's sustainability.
- Institutional Integration: To ensure long-term impact, ProgRESSVet has sought to integrate its activities into existing veterinary service institutions and government structures. By working collaboratively with local authorities and universities, the project aligns itself with the broader framework and leverages existing resources for continued success.
- Capacity Building: ProgRESSVet places a significant emphasis on building the skills and knowledge of participants and local staff. Through comprehensive training and educational programs, the project aims to develop a capable workforce that can sustain its initiatives and make meaningful contributions to veterinary services in the region.
- Continuous Evaluation and Adaptation: Monitoring and evaluating the impact of ProgRESSVet's interventions are integral to its sustainability. By regularly assessing outcomes and feedback, the project can adapt and improve its strategies, ensuring they remain relevant and effective in addressing evolving challenges.

Overall, the sustainability of ProgRESSVet is a core objective that underpins its lasting impact on animal health and food safety in East Africa. By proactively addressing financial, institutional, and community-based aspects of sustainability, the project is set up to continue making a meaningful difference in the region after the initial funding period.

Reflecting on the conclusion of the current funding cycle, we are pleased to highlight the significant efforts made towards building the sustainability of the ProgRESSVet program in East Africa.

In June 2022, a pivotal visit provided the opportunity to reinvigorate conversations with all partners, including KWVA, Makerere University, MAAIF, and the DVS in Kenya. Additionally, we extended our network to include new partners such as UVA, UVB, and KVB. The outputs of these conversations laid the groundwork for a series of working meetings during our subsequent visit in November 2022. These meetings allowed us to collaborate with each partner to explore potential areas of synergy and gather feedback on their perception of local and regional priorities for the program in the coming years. These interactions have strengthened partnerships and created a shared vision for the program's future, fostering a collaborative and inclusive approach to capacity building in veterinary services.

Concurrently, our eLearning team at CAHFS diligently documented and developed Standard Operating Procedures (SOPs) for the design and implementation of the ProgRESSVet program. These SOPs are expected to streamline the training of local staff when the program transitions to a local entity. By providing guidance on program development timelines, internal and partner communications management, material creation and adaptation, and overall organizational strategies, the SOPs serve as a comprehensive resource for guiding the program from conception to completion. They are a living

document, adaptable to incorporate new techniques, methods, and ideas, not only benefiting ProgRESSVet East Africa but also enhancing the portfolio of CAHFS eLearning projects.

Another significant milestone achieved during this funding cycle was the launch of the ProgRESSVet Alumni Network. This network serves as a valuable platform for maintaining connections with program alumni and tracking their progress and achievements. By staying connected with our alumni, we gain valuable insights into the long-term impact of the program and continually refine our capacity-building approach.

Furthermore, we are proud of the collaborative efforts made in supporting submissions to the Standards and Trade Development Facility (STDF) with MAAIF. This collaboration has fostered trust and a dynamic work relationship with our local partners, leading to ongoing joint projects on FMD surveillance, BSE risk analysis (with MAAIF, Uganda), and rabies vaccination implementation (with KWVA). These collaborative initiatives have not only strengthened our partnerships but also accelerated progress towards achieving common goals in animal health and food safety.



# Opportunities and Next Steps

> As the current funding cycle of ProgRESSVet East Africa draws to a close, a strong emphasis is placed on securing the program's long-term sustainability. ProgRESSVet has achieved significant milestones in capacity building within veterinary services in East Africa, and now looks to build upon its successes for a lasting impact. To achieve this, several key strategies are currently in progress, aimed at enhancing the program's sustainability and advancing veterinary services capacity building in the region. This section outlines the key components that will play a pivotal role in shaping the future trajectory of ProgRESSVet:

- **Consolidating the Network of Partners:**  
ProgRESSVet aims to strengthen its network of partners by fostering collaborations and leveraging synergies. For example, working with KVB and UVB, the program seeks to convene Veterinary Boards to harmonize Continuing Professional Development (CPD) policies across the region.
- **Enhancing the ProgRESSVet Alumni Network:**  
The ProgRESSVet Alumni Network plays a crucial role in maintaining connections with program alumni and tracking their progress and achievements. By engaging alumni and encouraging their active involvement in program initiatives, ProgRESSVet can leverage their expertise and experiences to further enhance the program's impact.
- **Supporting Local Knowledge Creation and Sharing Platforms:**  
ProgRESSVet is committed to promoting platforms that facilitate the creation and sharing of local knowledge. These platforms enable veterinary professionals and stakeholders to exchange ideas, best practices, and innovative solutions, fostering a collaborative learning environment.
- **Expanding and Updating the Curriculum:**  
ProgRESSVet recognizes the importance of continuously refining and updating its curriculum to align with evolving needs and challenges in veterinary services. By incorporating key new elements, the program stays relevant and equips

participants with the most current and effective tools and knowledge. Priority areas for expansion include:

- Integrating local and regional examples to enhance the curriculum's applicability and contextual relevance.
- Incorporating local and central coordination elements to strengthen the translation of evidence-based interventions effectively into the field.
- Incorporating financial and management principles to support the planning and implementation phases, ensuring transparent financial practices, effective resource management, and efficient administrative procedures that maximize the impact of program initiatives.

• **Gender Intentionality:**  
Building upon the results of the current pilot study on gender equality in Kenya, ProgRESSVet aims to develop systematic approaches to integrating the gender component into the context of Veterinary Service capacity building in the region. This important step promotes inclusivity and gender equity in veterinary services, ultimately enhancing the overall effectiveness and sustainability of the ProgRESSVet program.

By embracing these opportunities, ProgRESSVet is well-positioned to advance its mission of enhancing the veterinary services delivery in East Africa.

# Acknowledgments to the whole team

We would like to take this opportunity to express our heartfelt gratitude to all the individuals who have been instrumental in the success of this project. Their dedication, expertise, and unwavering commitment have made a significant impact on the achievements we have attained throughout the duration of the project. In addition to the partners and participants highlighted

in the previous pages, we truly appreciate the collaborative spirit and hard work of our University of Minnesota team, without which this endeavor would not have been possible.


**Each team member’s unique skills and contributions have shaped the project’s outcomes.**

- **Addisalem Bedada**, VPHPM Resident, Feedback Coordinator
- **Ann Bateman**, Center Operations Manager
- **Anna Pendleton**, Educational Associate; eLearning coordinator & Canvas Platform Developer
- **Britney Kosack**, Project Coordinator
- **Catalina Picasso**, Project Manager; Technical Expert: Epidemiology & Veterinary Services
- **Denis Enywaru**, Regional Coordinator
- **Emilio Leon**, CAHFS Technical Advisor, Training Content Developer
- **Eugenia Perez**, Communications Advisor + Designer
- **Fernando Sampedro Parra**, Consultant, Training Content Developer
- **George Omondi**, Regional Coordinator; Content Developer; Technical Expertise: Epidemiology & Zoonotic Diseases
- **Gus Brihn**, VPHPM Resident, Training Content Editor
- **Ian Allen**, Monitoring and Evaluation Specialist
- **James Kincheloe**, VPHPM Resident, Training Content Editor
- **Janice Mladonicky**, VPHPM Resident, Training Content Editor
- **Julie Adamchick**, Training Content Editor and Test Drive Facilitator
- **Kaylee Mhyre Errecaborde**, Technical Expertise: Policy & Multi-Sectoral Collaboration
- **Lyn Berning**, Project Logistics Support
- **Michael Mahero**, Regional Coordinator; Content Developer; Technical Expertise: Participatory Epidemiology & System Mapping Tools
- **Mila Velimirovich-Holtz**, Educational Specialist; eLearning coordinator & Canvas Platform Developer
- **Selena Galvan**, Student Support
- **Sylver Ochwo**, Feedback coordinator; Content Developer; Technical Expertise: Control of TADs



# Progressvet Assignment and Rubric Example

## Assignment example



### COMMON CASE QUESTIONS: A real trade dispute

Having read the **Bown & Hillmann (2016) paper**, answer the following questions with a brief paragraph (150-200 word limit):

- Based on the elements that are shared in this publication, can you identify what do you think are the main challenges for the effective implementation of SPS Agreements for animal products?
- Which are the provisions of the SPS Agreement that support this dispute? Do you think that there was any challenge regarding the interpretation of these provisions by each country?
- What do you think Argentina (exporter country, greater incentive) could have done differently to alleviate the situation?
- How transferable to your country do you think this scenario is?

Please post your response no later than: **29 NOVEMBER 2020** by posting in the forum below where it says “reply.”

We encourage you to read the forum replies of your cohort mates and to reply to them if you desire, to generate some discussion in the forum around these points during the orientation course.

If you are having difficulty with the forum, you can send an email to [progressvet@umn.edu](mailto:progressvet@umn.edu)

## Assignment Rubric

Criteria	1.5 point	1 point	0.5 points
Development of ideas	<p>Participant makes an original forum posting that addresses all aspects of the forum prompt, including sub questions.</p> <p>Participant references the eBook text and offers a professional experience or personal opinion in response to the forum prompt.</p> <p>Participant's reply puts forth new and original ideas to address the forum prompt, without repeating the eBook text or other forum posts verbatim.</p>	<p>Participant makes an original forum posting that addresses some but not all aspects of the forum prompt.</p> <p>Participant references the eBook text or offers a professional experience or personal opinion in response to the forum prompt.</p> <p>Participant's reply uses new wording to summarize eBook text or other posts in the forum without presenting any new ideas or information.</p>	<p>Participant makes an original forum posting but post does not address the forum prompt.</p> <p>Participant's reply does not reference the eBook text or offer a professional experience or personal opinion in response to the forum prompt.</p> <p>Participant's forum post recycles ideas heavily without new wording or contributions to the discussion.</p>
Evidence of critical thinking  (for example: provide pros/cons, raise questions, provide counter-evidence, examine assumptions, uncover biases)	<p>Participant raises questions, counter evidence, or practical concerns in their forum reply in an effort to explore additional dimensions to the issue.</p> <p>Participant takes a stand or offers an evidence-based opinion to contribute to the discussion.</p>	<p>Participant raises questions in their forum post, but does not ground their reply in counter evidence or personal experience as the basis.</p> <p>Participant takes a stand or offers an opinion to contribute to the discussion but does not offer evidence to demonstrate their position or thinking.</p>	<p>Participant makes a forum post, but does not raise any questions or explore any additional dimensions to the issue.</p> <p>Participant offers no personal opinion or input to contribute to the discussion.</p>
Interaction	<p>To stimulate discussion: Participant posts at least: 1 detailed reply to a cohort mate that meets the criteria explained above for “Development of new ideas” and “Evidence of critical thinking” to generate discussion or 2 brief replies</p>	<p>To stimulate discussion: Participant posts 2 brief replies to colleagues</p>	<p>To stimulate discussion: Participant posts 1 brief reply to a colleague</p> <p>Note: 0 points will be awarded if participant does not make any forum replies to colleagues</p>
Submitted on time 0.5 pt			





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