

Training of trainers (ToT) report on development and delivery of continuing professional development (CPD) modules in the veterinary domain



June 2022

Funded by the European Union



Implemented by



In partnership with



Training of trainers (ToT) report on development and delivery of continuing professional development (CPD) modules in the veterinary domain

Mamusha Lemma¹, Chris Daborn², Hiwot Desta¹ and Theodore Knight-Jones¹

1 International Livestock Research Institute

2 International Veterinary Consultant

©2022 International Livestock Research Institute (ILRI)

ILRI thanks all donors and organizations which globally supports its work through their contributions to the CGIAR Trust Fund



This publication is copyrighted by the International Livestock Research Institute (ILRI). It is licensed for use under the Creative Commons Attribution 4.0 International Licence. To view this licence, visit <https://creativecommons.org/licenses/by/4.0>. Unless otherwise noted, you are free to share (copy and redistribute the material in any medium or format), adapt (remix, transform, and build upon the material) for any purpose, even commercially, under the following conditions:



ATTRIBUTION. The work must be attributed, but not in any way that suggests endorsement by ILRI or the author(s).

NOTICE:

For any reuse or distribution, the licence terms of this work must be made clear to others.

Any of the above conditions can be waived if permission is obtained from the copyright holder.

Nothing in this licence impairs or restricts the author's moral rights.

Fair dealing and other rights are in no way affected by the above.

The parts used must not misrepresent the meaning of the publication.

ILRI would appreciate being sent a copy of any materials in which text, photos etc. have been used.

Editing, design and layout—ILRI Editorial and Publishing Services, Addis Ababa, Ethiopia.

Cover photo—ILRI/Hiwot Desta

Citation: Lemma, M., Daborn, C., Desta, H. and Knight-Jones, T. 2022. *Training of trainers (ToT) report on development and delivery of continuing professional development (CPD) modules in the veterinary domain*. Nairobi, Kenya: International Livestock Research Institute (ILRI).

*Patron: Professor Peter C. Doherty A. C, FAA, FRS
Animal scientist, Nobel Prize Laureate for Physiology or Medicine–1996*

Box 30709, Nairobi 00100 Kenya
Phone +254 20 422 3000
Fax+254 20 422 3001
Email ilri-kenya@cgiar.org

ilri.org
better lives through livestock
ILRI is a CGIAR research centre

Box 5689, Addis Ababa, Ethiopia
Phone +251 11 617 2000
Fax +251 11 667 6923
Email ilri-ethiopia@cgiar.org

ILRI has offices in East Africa • South Asia • Southeast and East Asia • Southern Africa • West Africa

Contents

Acknowledgements	v
Introduction	1
Day 1. Ethiopian CPD program, Veterinary Rationalization Roadmap (VRRM) and adult learning principles and practices	2
Introductory session	2
Key learning points and messages of presentations	5
Framework and implementation of the Ethiopian CPD program	5
VRRM and CPD	6
Adult learning principles, practices and applications	6
Practical/group work session	7
Review of key learning points and messages	8
Day 2. CPD training methodology, PVS standards and the platform	10
Day 1 Recap and feedback	10
Key learning points and messages of presentations	11
Instructional design process and active learning methods and materials	11
OIE PVS and development of standardized OIE compliant CPD curricula	14
Veterinary digital education platform	15
Learning monitoring and measurement methods	15
Practical/group session	17
Review and summary of key learning points	18
Day 3. Identification and review of existing learning resources and FAO/OIE training platforms	19

Key learning points and messages of presentations	19
Identification, evaluation and adaptation of existing learning resources: FAO/OIE training platforms	
Practical/group session	20
Review and summary of key learning points	21
Day 4. Learning approaches for CPD programs	22
Day 3 recap and feedback	22
CPD learning approaches and methods	22
Animal health competency mentoring framework (AHMF)	23
Key learning points and messages of presentations	22
Practical/group session	24
Review and summary of key learning points	24
Day 5. Allocation of CPD topics, work plans and post training support	25
Day 4 recap and feedback	25
Analysis and reflections on the development and delivery of CPD modules	27
Annexes	29
Annex 1. List of participants	29
Annex 2. Et CPD ToT training program	31
Annex 3. The training process in pictures	32

Acknowledgements

The Health of Ethiopian Animals for Rural Development (HEARD) project is financed by the European Union.

Among others, one of the objectives of the project, 'improving the technical competencies of veterinary service providers to enable them to deliver better and provide rationalized services' is jointly implemented by the International Livestock Research Institute (ILRI) and the Ethiopian Veterinarians Association (EVA). The lead implementer of the HEARD project is the Federal Democratic Republic of Ethiopia's Ministry of Agriculture.

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of the authors and do not necessarily reflect the views of the European Union.

Introduction

The Health of Ethiopian Animals for Rural Development (HEARD) is an EU supported project jointly implemented by the Ministry of Agriculture, regional bureaus of agriculture and livestock development in Amhara, Oromia and Somali regions, the International Livestock Research Institute (ILRI) and the Ethiopian Veterinary Association (EVA). The purpose of the project is to increase sustainable livestock productivity and improve the marketing of livestock products. In line with the HEARD project intervention framework, ILRI and EVA jointly work to strengthen the competencies (knowledge, skills and attitudes) and incentives for veterinary service providers to deliver better and rationalized animal health services. Continuous professionalization of animal health service providers through a variety of CPD learning activities is essential to improve the quality of animal health services.

Continuing professional development (CPD) is an important if not vital activity if veterinary and paraveterinary professionals are to keep abreast of new developments to update their skills and knowledge. In recognition of this a CPD implementation and management framework has been recently developed and ratified by livestock sector stakeholders providing the impetus for delivering a program of continuing education to veterinary personnel in Ethiopia. In support of this program, a training of trainers (ToT) course was designed to build the capacity of selected university and other national veterinary staff to produce CPD learning materials and deliver CPD courses. The courses address nationally prioritized topics targeted at improving the skills and knowledge of veterinary and paraveterinary professionals in Ethiopia using appropriate adult learning approaches.

The ToT for the development and delivery of CPD modules in the veterinary domain was attended by two groups of participants. The first group comprised largely private sector and non-academia organizations and the second group comprised largely academia (Annexe 1). The two courses ran sequentially using a blended modality for the periods 9 to 13 May 2022 and 16 to 20 May 2022, respectively, at ILRI Addis Ababa campus. The course featured both theoretical and practical elements of veterinary CPD module development and delivery moving from one to the other as the week progressed. The course sessions (Annexe 2), featuring a mix of lecture, interactive and workshop style face to face and virtual presentations, were delivered by the two course tutors, Mamusha Lemma and Chris Daborn with invited speakers from national and international organizations. Outputs of the course include a review of online learning materials, learning approaches and CPD modules. These outputs and the learning resources/supplementary materials delivered to course participants can be accessed at the following links:

https://drive.google.com/drive/folders/1qCVj-o4_AT10KVS7v9Gh15BdcCKlrSq0?usp=sharing

https://drive.google.com/drive/folders/1sNmF_1Vllx5d_nZpMZ6_2moMWFShpfZL?usp=sharing

Participants completing the course were awarded a certificate of attendance and will be invited to tender for the development of CPD modules in response to a call that will be sent out by EVA.

Day 1. Ethiopian CPD program, Veterinary Rationalization Roadmap (VRRM) and adult learning principles and practices

Introductory session



The introductory session sets the context for the training. Standing in a circle and using a paper ball, participants introduced themselves and shared experiences in adult training. This helped identify the background of the participants regarding the training objectives.

Then, participants identify expectations from the training and indicate intentions to apply the learning from the training. This helped create motivation and purpose for learning among the participants.

Day 1: Introduction, CPD framework, adult learning principles and practices

Introduction

- Go around and meet as many participants as you can whom you do not know.
- Introduce yourself.
- Share any learning experience in pedagogy and curriculum design and review in your career.

Expectations and intention to apply lessons

- Individually, write down two to three learning expectations and one intention to apply the lessons.
- By table, agree on two to three learning expectations and intentions to apply the lessons.
- In plenary, share your group learning expectations and intentions to apply the lessons.

Participants' learning expectations

- How to train adults
- Format for CPD modules
- Share experience
- Learning measurement
- Basics of CPD and its contribution
- How to develop CPD modules
- Adult learning methodologies
- How to address CPD challenges
- Learning measurement

Participants' intention to apply learning

- Cascade and share with others
- Guidance and advising others
- Revision of teaching materials
- Development of in-service training materials
- Design curriculum for adult learners

Training objectives, outcomes and content

The outcomes from the training and content to be covered to achieve the objectives were presented and compared to the learning expectations of participants.

Learning outcomes

By the end of the training, participants will be able to:

- **Apply** basic principles, guidelines and format for CPD module development
- **Formulate** learning objectives and outcomes
- **Apply** adult learning approaches and methods in the design and delivery of CPD modules
- **Apply** appropriate learning measurement tools
- **Develop** CPD modules following a standard format
- **Identify, evaluate and adapt** existing learning resources to develop standardised CPD modules
- **Deliver** CPD modules to capacitate para-veterinary professionals

Learning content

- CPD framework, adult learning principles and practices
- Importance of CPD to the Veterinary Rationalization Roadmap
- CPD training methodology, PVS standards and the digital education platform
- OIE PVS, Levels of Advancement and CPD Training Needs
- Identification, evaluation and adaptation of existing CPD learning resources
- CPD module format and learning approaches and methods
- Module writing practice, feedback, review and reflection



Training approach and process

To stimulate and enhance learning and increase knowledge retention and application, experiential, reflective and practice based learning approaches were used to deliver the training. This practical training approach also sets the example how participants would facilitate learning processes when they are cascading the training to lower levels.

Learning approach and process

- **Experiential**, case-based, **reflective** and collaborative learning process
- Enriching learning through guest presentations and reflective discussions
- Group work and presentations
- Learning monitoring tools: recap/feedback teams, mood meters, question/feedback boards, reflective learning logs, training survey



Learning monitoring and feedback methods

Reflection and engaging feedback gathering methods were used to obtain feedback from participants and learn about their reaction to the learning content and process. Methods such as self-learning management tools, recap and reflection sessions, question/feedback board, mood metre and training survey were used in the training process to measure learning, get feedback and enhance meaningful engagement and application of lessons.

Self-learning management tools

Daily learning logs and reflections: “key take away messages” – “the moral of the story”

- **Key “lessons” and insights:** What did I “learn”? What is in it for me? What does make sense to me?
- **Connection and application:** How will I use/apply the lessons and insights in my work? How will it make me a better course designer/writer?
- **Learning reinforcement needs:** What do I still need to know, and how can I achieve this?



Recap and feedback teams

Purpose:

- Obtain participant **feedback** on training **process** and **content**
- Reflect on key learning points and insights
- Energizers
- Time keeping



Key learning points and messages of presentations

In the following, a summary of presentations (objectives, messages and applications) is briefly presented.

Framework and implementation of the Ethiopian CPD program

Objectives:

The purpose of this activity is to inform participants of the structure and management plan for the Ethiopian CPD program (Et CPD) to provide awareness of the critical need for quality and standardized CPD modules addressing key topics of relevance to the delivery of improved veterinary services by an informed and skilled livestock service providing workforce.

Main points presented/discussed

- A presentation of the Ethiopian CPD (Et CPD) program

- The importance of the ToT course for the ET CPD program

Key messages and applicability

- Quality and standardized CPD modules are a prime requirement for the Et CPD program
- The Et CPD program target is a skilled and informed workforce for enhanced veterinary services

VRRM and CPD

Objectives:

A presentation by the Health of Animals for Rural Development (HEARD) program technical assistance team to raise awareness of the aims and objectives of the VRRM to strengthen the veterinary services delivered by both the public and private sectors.

Main points presented/discussed

The vision of an enabled and rationalized framework for the delivery of veterinary services in Ethiopia and the role it sees for and the support it will provide to the development and delivery of VRRM capacity building CPD.

Key messages and applicability

- Quality and standardized CPD modules are a prime requirement for the Et CPD program
- The Et CPD program target is a skilled and informed workforce for enhanced veterinary services

Adult learning principles, practices and applications

Objectives:

The topic aimed to engage participants in interactive discussions by drawing on their experiences and reflecting on these experiences to draw lessons. By so doing, experientially, participants learned characteristics of adult learners and thereby identified principles for adult learning and what this means in practice when they deliver CDP learning activities.

Main points presented and discussed:

Adult learning principles and practices

Brainstorming/Interactive Discussion

- Think of a learning event that excites you the most. What makes this learning event the best for you?
- What is learning?
- What are the **levels** of learning?
- How do adults learn?
- What is active learning?
- What is a learning domain?
- What is a learning style/orientation/preference?
- What is a learner-centered training approach?



The interactive discussions explored participants' prior knowledge and build on their knowledge. Such learning approach engaged participants by asking them to give examples and evaluate what the learning means to their context. This way the learning becomes meaningful and learners would have a sense of achievement as their knowledge and experiences are explored and built on. This is how adult learning principles and practices are thought in practice. A brainstorming on 'Think of a learning event that excites you the most. What makes this learning event the best for you?' invited participants to tell stories of learning experiences and reflect on their stories. In their stories, they described characteristics of good adult learning activities and the moral of the stories was 'do the same' when you train adult learners.

Through interactive discussions, learning topics such as learning domains, learning styles, adult learner characteristics and principles and practices of adult learning were discussed, exemplified/contextualized and implications for practice reflected.

Key messages and applicability:

- Adults are self-directed, goal/relevance oriented
- Adults have experience and learn better by reflecting on their experiences
- Adults focus on application of learning
- Adults are motivated to learn when the learning is engaging, relevant and applicable
- Know your audience (level of knowledge, learning styles) and design variety of learning activities using combination of methods to cater for individual differences and engage adult learners in meaningful learning experience to increase retention and applications.

Practical/group work session

Objectives:

The practical session engaged participants in reflective and experiential small group discussion to identify what the theoretical presentations would mean in practice.

Implications: reflective journaling

- What are the **implications** of learning domains, learning styles, adult learning characteristics and principles for the design and delivery of adult training programs?
- First, write down your individual reflections, and then share in pairs or trios.



Group work output:

Implications of learning domains in practice:

- Formulate objectives for each learning domain

- Formulate outcomes for each learning domain
- Identify content for each learning domain
- Identify methods and materials for each domain
- Mix of skill sets of training team
- Assessment for each learning domain
- Assess levels of knowledge and skills of trainees

Implications of learning styles/adult learning characteristics/principles in practice

- Mix of methods/learning activities/materials
- Different instructional media
- Diversify mode of delivery
- Diversify learning assessment
- Consider options for training
- Build on knowledge and experiences of learners
- Participatory/practical delivery
- Relate to constraints/challenges of learners
- Practical/experiential assessment tools
- Motivation of learners is key clarify need/reason for learning

Review of key learning points and messages

Key learning points and messages

The Ethiopian CPD program target is a skilled and informed workforce for enhanced veterinary services.

The VRRM is seeking a paradigm shift from public only to a public-private partnership in the delivery of veterinary services.

The VRRM looks to the Ethiopian CPD programme for producing an informed and skilled workforce for the delivery of a rationalized veterinary services.

Quality and standardized CPD modules are a prime requirement for the Ethiopian CPD program

Learning is about thinking (knowledge), feeling (attitude) and action (skills).

Learning is a multi-step process of increasing cognitive complexity.

Instructional strategies (objectives, content, methods and assessments) should align and vary to meet different learning domains and styles of learners.

Adults learn from **reflections** on experiences. Change happens through a process of experience, reflection and dialogue.



Reaction/feedback of participants on the learning content and process

Participants were shown faces that show different reactions or feelings: happy, neutral, or unhappy. They were asked to draw one of the faces on a piece of paper to indicate as objectively as possible their reactions and provide feedback as the training progresses. This monitoring tool helped facilitators obtain participants' feedback and make necessary changes.

Mood meter: key words to express feelings



- Very helpful training and highly related to my work experience
- Delivery was clear, interactive and useful
- Gained new knowledge about CPD, learning domains, adult learning styles and principles
- Acquired good experience, interactive way of training/discussion
- Participatory, interactive
- Good training methods, active participation, encourage sharing of ideas and experience
- Good management of scheduled topics and time
- Provides new ideas/knowledge with opportunities for application



- Had stomachache
- No comment



Day 2. CPD training methodology, PVS standards and the platform

Day 1 Recap and feedback

Day 1 Recap and feedback



3 key **"lessons"** you learnt (new knowledge and insights) and how you will apply the lessons



2 **questions** you have that need to be addressed



1 **feedback** you have on the training content and process



Three key lessons and applications

- Big picture/context/overview of CPD program
- Reflections on experience for deeper and meaningful learning
- Expectations of the CPD program and role of CPD providers
- Applications of adult learning principles
- World Organisation for Animal Health (OIE) Performance of Veterinary Services (PVS) levels of advancement as a diagnostic and needs identification tool
- Importance of CPD
- How to train adults
- Balance of domains and levels of learning with background of learners
- Use of variety of learning approaches, methods and materials to cater for learning needs and styles of learners
- The importance of reflection as a learning tool

Two questions/feedback

- Levels of learning
- Communication and collaboration among CPD stakeholders

Day 2. CPD training methodology, PVS standards and digital education platform

Agenda:	Day 1 recap and feedback
	A systems approach to instructional design
	The ADDIE instructional design process
	Active learning methods and materials
	Development of standardized OIE compliant CPD modules
	Digital Education Platform
	Learning monitoring and measurement methods and tools
	Review and summary of key learning points and messages



Key learning points and messages of presentations

In the following a summary of presentations (objectives, messages and applications) is briefly presented.

Instructional design process and active learning methods and materials

Objectives:



The topic aimed to build on adult learning principles and practices and reinforce learning through interactive discussions on the Analyse, Design, Develop, Implement and Evaluate (ADDIE) model and process, inviting examples from participants and reflecting on what this means for them when designing adult learning programs.

Main points presented/discussed:

Using brainstorming, participants explored their experiences on learning material development process

Instructional design model and process

Brainstorming/Interactive presentation

- Can training be the only solution to a performance gap?
- What factors can influence training outcome?
- What is an instructional design?
- What is a systems approach to instructional design?
- What are the basic steps of instructional design?
- What is the relationship between learning goal, objectives and outcomes?



Learning topics covered included:

- Basic steps of instructional design
- Principles of instructional design
- Formulation of learning objectives and outcomes
- Guidelines for selecting instructional strategies
- Active learning methods and materials
- Criteria for selecting training methods

Principles of instructional design

? Begin with the **end** in mind

Make it **learner-centered**







Make continuous improvements

Follow a methodology

Consider the big picture







Rules for developing objectives and outcomes

-  Look at **skills** necessary to perform a given **task**.
-  Tie a **single outcome** to a **single task or skill**.
-  Start your outcome statement with *"By the end of the session/unit/lesson, learners will be able to..."*
-  Begin each objective with an **action verb**, something that can be **measured** or **observed**.
-  By using specific, measurable words you make it easier to develop your learning assessments.
-  Do NOT begin objectives with words such as *"understand"* or *"know."*



Guidelines for selecting instructional strategies

-  Begin with an **outcome/product** in mind.
-  Establish relevance.
-  **Alignment:** Clearly and appropriately link instructional strategies (content, learning activities, methods, materials, assessment) to objectives.
-  Instructional strategies should match needs, characteristics and goals of learners.



Active learning methods and materials

- Training methods serve two **purposes**:
 - a **means** for the learners to learn the specific training content and
 - keep the learners **interested** and **involved** in the training so learning is **enhanced**.
- Active learning is the use of **one or more interactive approaches** to training for **engaging** learners in learning activities to acquire knowledge, attitude and skills.



Criteria for selecting training methods



Purpose of training program: expected outcomes



Audience characteristics: learning needs, backgrounds, learning styles



Content of training program



Learning **domains**



Options for training: time and resource availability



Key messages and applicability

- Training is only one solution to improve performance gap; it requires complementary interventions to address other aspects of performance gaps
- Follow a methodology such as ADDIE
- Systems thinking and practice in learning material development
- Objectives are specific statements of training/teaching intentions
- Outcomes are specific statements of what learners would be able to do because of learning
- Learning levels and associated action words
- Many different types of active training methods; use methods in combination to cater for learning domains and styles

OIE PVS and development of standardized OIE compliant CPD curricula

Objectives:

Presentation of the OIE PVS and its importance of internal and export livestock market chains



Chris Daborn: presenting on OIE PVS and development of standardized OIE compliant CPD curricula.

Main points presented/discussed

- The critical competencies evaluated by the PVS and the importance of CPD in raising quality standards for these competencies
- Group work to propose current levels of advancement for selected key competencies and capacity building needed to raise these

Key messages and applicability

- Achieving OIE standards will enable access to higher value markets
- We need to be targeting a level of advancement of 4+ for each critical competency

Veterinary digital education platform

Objectives:

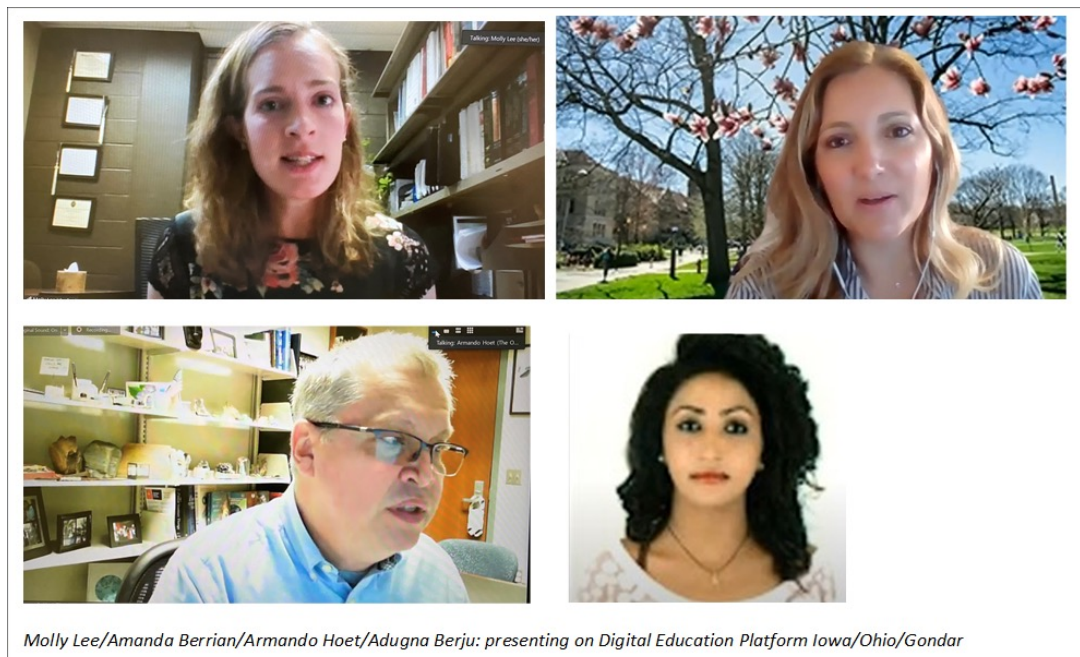
The creators of the veterinary digital education platform (VDEP) provided an overview of this important resource for the development of CPD training materials.

Main points presented/discussed

- Guidance on best teaching practices and quality standards for developing CPD module
- The design of instructional tasks and processes that should be adopted and opportunities for collaborative CPD learning material development

Key messages and applicability

- Access to quality resources supporting the production of CPD teaching materials is just a click away



Learning monitoring and measurement methods

Objectives:

The topic engaged participants in interactive and reflective discussions drawing on their experiences about what and why of learning measurement. Participants learned that learning measurement tools should align with learning objectives.

Main points presented/discussed:

Learning monitoring and measurement methods

Brainstorming :

- **Why** do we need to monitor and measure learning in a training situation?
- **How** do we monitor and measure learning in a training situation?



There are different methods and tools to measure/monitor learning in the CPD content.

Some examples include:

- Pre- and post-training self-assessments and tests
- Learning logs/diaries
- Recap and reflection sessions
- Mood metres
- Quick feedback questions
- Question and feedback boards
- Training survey questionnaires

Different learning assessment methods

- Formative (in the moment) and summative (end of training) assessment
- Roundup self-checking questions
- Learner interviews
- Observations
- Mood meters
- Quick review and feedback questions
- Feedback/suggestion boards
- Recap and reflection sessions
- Reflective journaling/learning logs/diaries
- Learner action plans
- End of training feedback survey



In an interactive discussion, participants learned the focus and methods in the levels of training evaluation (reaction evaluation, learning evaluation, behaviour evaluation and results evaluation).

Key messages and applicability

- Formative (in the moment) and summative (end of training) assessment should consider the different learning domains and seek to measure them across multiple forms.
- Instructional objectives, activities, methods, and materials, learning measurement methods/tools should vary to meet different learning domains and styles of learners.

Practical/group session

Objectives:

The practical session engaged participants to identify what they would do in each step of the ADDIE model.



Participants in group work on the ADDIE process.

Group work

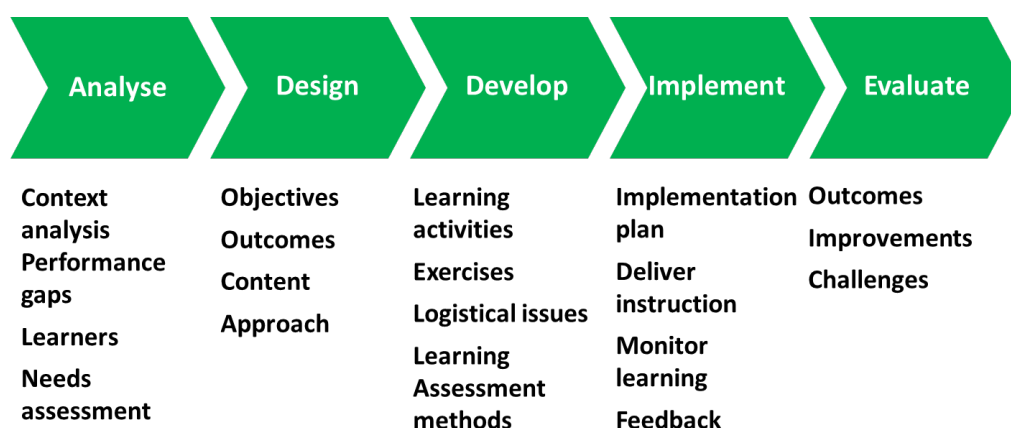
Using the ADDIE model, discuss and outline what you would do in each component/step of the model.

Individual practice exercise:

- Describe the **alignment** among target audience (learning needs), training course description, learning objectives, outcomes, content, methods and materials, and learning assessment/measurement.
- Identify **strengths** of each training method and **match** the **methods** with learning **domains** (knowledge, attitudes and skills) and learning **styles** (visual, auditory and Kinesthetic).



Group work output:



Review and summary of key learning points

Summary of key learning points and messages

- Achieving OIE standards will enable access to higher value markets
- Access to quality resources supporting the production of CPD teaching materials is just a click away
- Formative (in the **moment**) and **summative** (end of training) assessment should consider the different **learning domains** and seek to measure them across **multiple** forms.
- Adult learners have different learning styles and need to learn skills in **context** (examples, cases, application).
- Adult learners are motivated by **activity**, appropriate **challenge levels** and a **pace** and **style** that is **facilitative**, rather than instructive.
- Instructional objectives, activities, methods and materials, learning measurement methods/tools should vary to meet different learning **domains** and **styles** of learners.
- Clearly and appropriately **link** instructional strategies to objectives.
- Instructional strategies should match needs and characteristics of learners.



Day 3. Identification and review of existing learning resources and FAO/OIE training platforms

Day 2 recap and reflection

Key lessons learned and applications:

- Availability of resources out there, collaborations
- Methods and metrics
- Need for training team with a mix of skill sets (subject matter, training specialist, logistics, documentation)
- Applicability of measurement tools
- Importance of OIE standardized CPD materials
- Delivery is not the end
- OIE standards as a guide for CPD implementation
- Collaboration for content development and accessing existing resources
- Role of mentoring to develop skills
- Start from the end, work backwards and check on alignment
- OIE day 1 competencies as a guide to ensure relevance of teaching interventions

Key learning points and messages of presentations

In the following, a summary of presentations (objectives, messages and applications) is briefly presented.

Identification, evaluation and adaptation of existing learning resources: FAO/OIE training platforms

Objectives

- Explain whether online learning is an appropriate modality for a CPD course
- Discuss appropriate modalities of online learning according to identified needs

- Identify existing and/or upcoming online learning resources available through the FAO virtual learning centres
- Give an overview of the processes used to develop online courses.

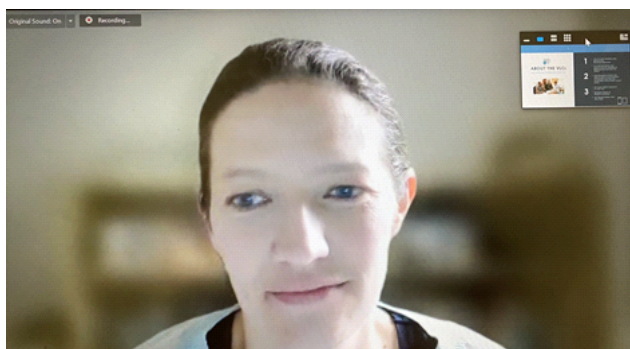
Main points presented/discussed

The presentations explained the different types of e-learning modalities available and gave some examples of each. The advantages and disadvantages of different modalities were discussed and the importance of a needs assessment, alongside consideration of learning strategies and resources were highlighted when choosing appropriate modalities.

Key messages and applicability

- Online learning exists in a wide variety of modalities and it is vital to choose the appropriate modality to meet the needs of each course.
- Need to decide if and how to include online learning as part of CPD courses.
- Know the type of people to involve for more guidance on virtual learning solutions and how the FAO VLCs might assist.

East Africa region FAO virtual learning centre (VLC)



Jenny Maud: presenting on online learning methodologies



Gerald Mucheru: presenting on virtual learning centres, FAO

The FAO virtual learning centre for eastern Africa was presented, including an outline of courses conducted to date, those planned and a demonstration of a typical course and its features. Recognition of VLC courses for CPD in eastern Africa was discussed.

An overview of the online learning course development process was presented, highlighting the timelines, human resources and software needed.

The FAO VLCs are building a variety of online courses for animal health audiences, often using a tutored online course approach. The existing or planned VLC courses could support CPD provision in Ethiopia. In addition, the VLCs have access to a range of expertise that can guide on online learning development.

Practical/group session

Objectives

- Review and summarize given learning material content subject matter, skills/knowledge covered and method of presentation
- Discuss how the material could be used for informing CPD module development
- Detail any changes needed to make the material more suited for CPD modules tailored for Ethiopia
- Give, with reasons, an overall assessment of the value of the material as a resource for informing the development of a CPD module

Group work outputs

Five group presentations on selected learning materials giving an analysis based on the objectives as set out above.

Review and summary of key learning points

- Online learning exists in a wide variety of modalities, and it is vital to choose the appropriate modality to meet the needs of each course.
- Need to decide if and how to include online learning as part of CPD courses.
- If used appropriately, blended learning approaches that combine the advantages of face to face and online elements can be effective.
- The VLC provides a depository of ready-made learning resources.
- Opportunity of collaborative course development with the VLC

Day 4. Learning approaches for CPD programs

Day 3 recap and feedback

Three key lessons and applications

- Focus on attitudes/motivation of learners
- Accessing, evaluation and adaption of existing learning resources is just a click away
- Advantages of different learning delivery modalities (face to face, virtual, blended)
- Awareness of many learning platforms that can be helpful for CDP program
- Factors for choosing appropriate learning delivery modalities
- Importance of motivating/engaging learners
- Setting/situations for using different learning approaches and methods
- Importance of mentoring for skills development
- Factors for considering online learning resources
- Consider audience/target
- Practical considerations for designing online learning courses
- Accessing available learning resources is just a click away
- Challenges of online learning completion

Key learning points and messages of presentations

In the following, a summary of presentations (objectives, messages and applications) is briefly presented.

CPD learning approaches and methods

Objectives:

To present and discuss the 10 different learning approaches approved for the EVA CPD program

Main points presented/discussed

- Each learning approach has its own strengths and weaknesses
- The more practical/applied approaches are likely to be more attractive for work experienced learners
- The win-win advantage of adopting the cascading learning approach

Key messages and applicability

- Different approaches suit different needs and preferences of learners
- Importance and value of cascading knowledge by professionals to paraprofessionals to community animal health workers

Animal health competency mentoring framework (AHMF)

Objectives:

To share how Brooke is helping to develop confident, compassionate and competent animal health practitioners using a workplace mentoring approach.



Alemayehu Hailemariam: presenting on Animal Health Competency Mentoring Framework Brooke Et

Main points presented/discussed:

- Gain an overview to the work of Brooke Ethiopia in training animal health practitioners and strengthening animal health system
- Introduced to relevant medical education theory in building practitioner competency
- Define what makes a 'good' animal health practitioner
- Understand how mentoring works in the field
- Interpret AHMF results
- Understand AHMF results within the wider animal health system

Key messages and applicability

- AHMF is a tool that can be used for training needs analysis (TNA) and for monitoring advances in competency
- The 6 elements of people, services, products, finance, policies and information that together make a good animal health system
- Animal health mentoring goes far beyond simply providing training or transferring animal health knowledge it builds a relationship and problem solves on the ground

- Mentoring takes place when learners are working with their own cases, emphasizing the importance of the clinical competencies to the learner's individual context
- Mentoring makes learning highly relevant enabling ready adoption of new skills and concepts

Practical/group session

Objectives:

Each group was tasked to undertake a SWOT analysis of one of the following five learning approaches:

1. Attend/deliver a structured CPD training course, module, conference, workshop, seminar or lecture
2. Undertaking self-study to update knowledge or skill
3. Undertaking a mentored applied study (learning by doing)
4. Authorship/review of a paper intended for publication
5. Cascading CPD learning materials from veterinary professionals (VPs) to veterinary paraprofessionals (VPPs) to community animal health workers (CAHWs)

Group work outputs:

Each group presented a SWOT analysis of one of the above learning approaches.

Review and summary of key learning points

- Each learning approach has its own strengths and weaknesses
- Different approaches suit different needs and preferences of learners

Day 5. Allocation of CPD topics, work plans and post training support

Day 4 recap and feedback

Three key lessons or messages

- Need and role of mentoring as 'human centred' learning approach for addressing deficiencies beyond training
- Contextualizing CPD learning approaches
- Commitment/discipline/self-management for CPD learning
- Importance of alignment with global/OIE standards
- Importance of understanding learning principles and practices for self-study
- Methods of evidence documentation for CPD learning activities
- Understanding CPD beyond 'structured courses'
- Variety of CPD learning approaches and activities to cater for the varied needs, conditions and needs of learners
- CPD learning approaches require tools to guide and structure learning activities and outcomes
- Practical considerations for evaluation and adaptation/contextualization of existing learning resources
- Contribution of CPD for veterinary services rationalization
- Veterinary services rationalization can increase competition, demand driven and quality service provision and accountability
- Role and challenges of private sector in veterinary services rationalization
- Consider audience characteristics in selecting learning approaches and methods
- Evaluate/assess and adapt learning approaches, methods and materials to your context and learner characteristics

Preparation and presentation of action plans

Post course participants will be invited by EVA to submit a proposal to develop one of the priority topics into a CPD module. In preparation for this, participants were invited to indicate, on a scoping survey form, their preference as to whether they wish to develop a topic working alone or in a group and to list, in order of preference, five topics they would like to develop if selected and supported to do so. From the analysis of the submitted forms, each participant was allocated one topic to practice module development. A selection of draft module outlines was presented in a plenary

giving opportunity for comments and observations that reinforced the learning theory and approaches as accumulated during the week.

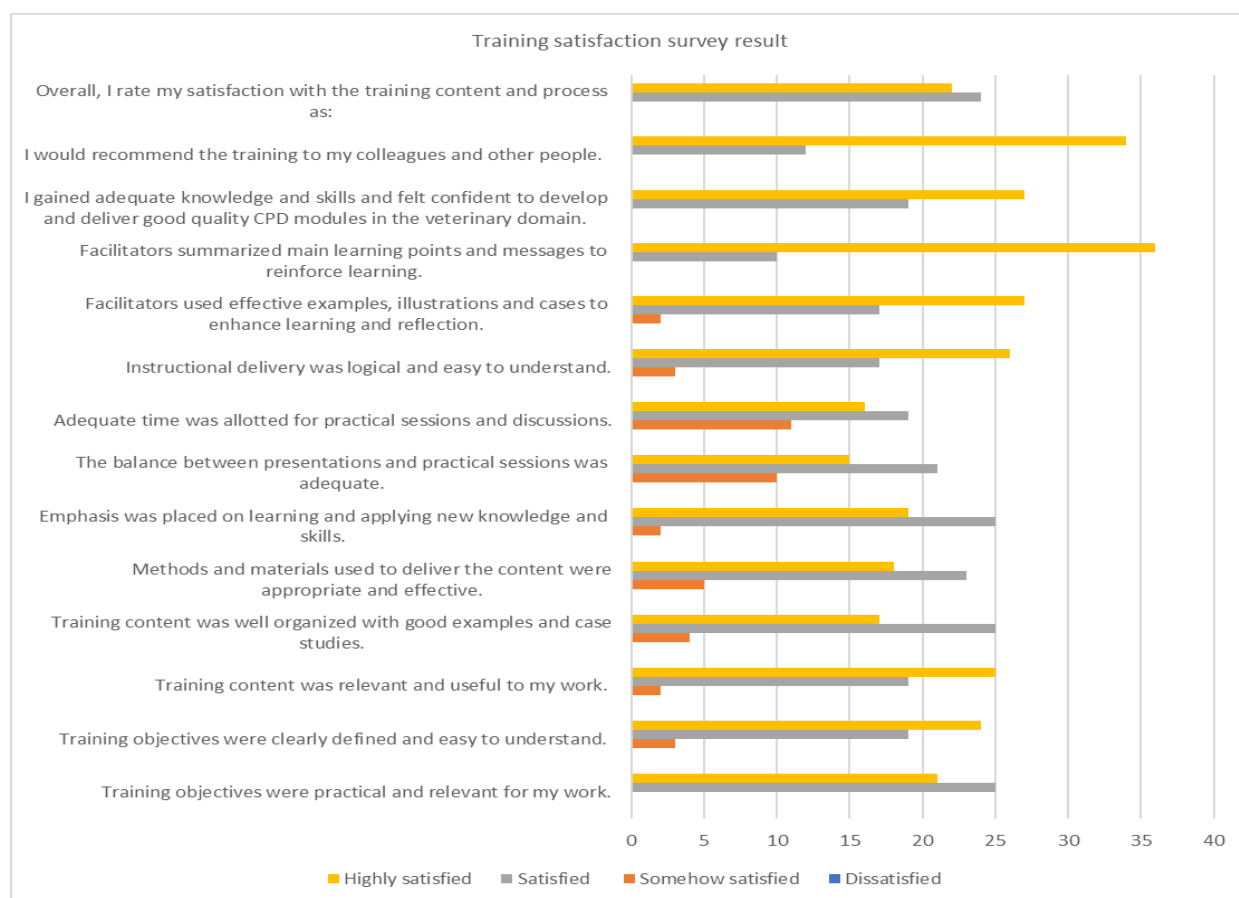
Review, reflections, feedback and evaluations

- Sequence and organization of course program: 3 days 'what foundational/basic concepts' and 2 days 'how practical aspects and feedback'
- Writeshop to review and give feedback on CPD modules and delivery/cascading plans
- Blended training modality in practice
- Focus on outcomes
- Provide training resources in advance
- Coaching and mentoring through virtual engagement

Training survey

End of training survey was used to collect feedback on the satisfaction of participants on the content and process of the training (Figure 1). Overall, participants are satisfied or highly satisfied in the training. They demonstrated high satisfaction in the way facilitators summarized the main learning points and messages to reinforce learning and reflection. Participants also indicated that they would recommend the training to their colleagues and other people. The participants also indicated improvement areas including inadequacy of time allocation for practical sessions and discussions and the balance between presentations and practical sessions.

Figure 1. Training satisfaction survey.



What did you like most about the training?

- Participatory approach, interactive, energizing
- Diverse topics, mix of trainers/presenters, participation of senior veterinarians through virtual platform
- Practical, contextualized to practical situations, two way knowledge and experience sharing
- Relevant to my work, helpful for my professional development, helped me identify my gaps
- Plenty of existing learning resources to start with
- Learning reflections, the way the daily topics were summarized and the takeaway messages
- Time management

Which content of the training was most relevant for you?

- OIE day 1 competencies
- OIE compliant CPD module development guidelines
- VLC or online learning platforms
- Role of CPD in veterinary services rationalization
- Adult learning principles and practices
- Learning domains and instructional design process
- CPD learning approaches and methods
- Evaluation and adaptation of existing learning resources to context.

What aspect of the training could be improved?

- More time to practice CPD curriculum development and get feedback
- More training on pedagogy to achieve the objective
- Some presentations have workshop approach, make the training more practical and focused
- Use exemplary CPD module
- Share training materials ahead
- Pace of presentation of some speakers was too fast
- Send the recording to participants
- Reduce overlap/redundancy in some presentations

Analysis and reflections on the development and delivery of CPD modules

- The CPD program addresses a major gap for veterinary professionals and paraprofessionals where many have received no further training since they graduated
- CPD should address soft skills, such as IT, business skills/management, in addition to veterinary technical subjects
- Culture of applied on the job learning and reflection missing in conventional training approaches

-
- There is a national action plan in place for antimicrobial use and resistance —CPD modules should be coherent with this
 - Potential to align MoA 'performance indicators' with CPD points acquisition
 - Online CPD learning resources are just a 'click away'
 - Iowa/ Ohio State Universities' assessment and implementation of OIE day one competencies tool and Brooke AHMF could be adapted for CPD TNA
 - www.menti.com a very useful tool for online interactive questioning
 - Good practice to preface face to face training by online learning—blended approach
 - A range of quality CPD learning/teaching materials available to access and adapt—no need to reinvent the wheel
 - Subject Matter Specialists (SMS)—a critically important resource for CPD module development and an ideal target for CPD learning
 - We need to be proactive in cementing a positive relationship between VRRM and CPD
 - Create 'learning resource hubs' in veterinary offices to facilitate access to CPD materials
 - Establish a functional two way link with the FAO East Africa regional VLC
 - Maintain a strong watch on the OIE training platform and use/disseminate materials as produced
 - Establish a CPD community of practice—(CoP)—perhaps best as a regional platform
 - One key target for CPD is to increase livestock productivity and the marketing of safe, quality, value added livestock products as envisaged in the livestock master plan
 - CPD should embrace and include reference where possible to gender, climate, environment and socio-economic factors in recognition of their importance as cross-cutting issues
 - Identify/establish 'centres of excellence' and/or 'expert task forces' for given subjects such as One Health (OH), risk analysis, TADs, veterinary public health (VPH), antimicrobial use and resistance etc. to quality control the CPD content in those subjects
 - CPD course development is an ideal opportunity to create multidisciplinary and interprofessional teams comprising academia, public, private and NGO sectors
 - 'Ethiopia has a lot of languages'—CPD materials used at community level needs to be inclusive and sensitive to this reality.

Annexes

Annex 1. List of participants

First round

#	Name	Gender	Organization
1	Alemayehu Hailemariam Sitotaw	M	Brooke Ethiopia
2	Etsegenet Tekeba Adugna	F	Kyeema Foundation
3	Girma Ayalew Mengistu	M	EWCA
4	Hailu Zeru Berhe	M	VDFACA
5	Abera Gameda Bejiga	M	VDFACA
6	Ayelech Muluneh Mengesha	F	NAHDIC
7	Takele Worku Atomsa	M	NAHDIC
8	Takele Tesgera Hurisa	M	NVI
9	Liyuwork Tesfaw Awgichew	F	NVI
10	Tenaw Andualem Tadege	M	FAO
11	Elias Walelign Dagnachew	M	FAO
12	Asmamaw Kassaye Beyene	M	The Donkey Sanctuary
13	Waltenigus Getachew Yizengaw	M	EAHPA
14	Zewdu Belay Emagnaw	M	ALFRDO
15	Abdiaziz Abdulahi Bashir	M	Somali PDB
16	Misgina Fitsumbirhan Gebru	M	Zoetis ALPHA
17	Aklilu Tesfaye Adane	M	MoA
18	Fasil Mesafint Sisay	M	Ethio-Chicken
19	Fasil Awol Ibrahim	M	EVA

Second round

#	Name	Gender	Organization
1	Tsedale Amare Mengiste	F	Samara University
2	Gebremedhin Gebrezgabiher Gebreyohans	M	Samara University
3	Tsegaw Fentie Kassa	M	University of Gondar
4	Ashenafi Assefa Gebremariam	M	University of Gondar
5	Adugna Berju Molla	F	University of Gondar
6	Taddesse Yayeh Yihun	M	Bahir Dar University
7	Habtam Tassew Tarekegn	M	Bahir Dar University
8	Ararsa Duguma Benti	M	Haramaya University
9	Chala Mohammed Ahmed	M	Haramaya University
10	Abdallahi Abdurehman Damise	M	Haramaya University
11	Zerihun Asefa Dammessa	M	Addis Ababa University
12	Jirata Shiferaw Abosse	M	Addis Ababa University
13	Fanos Tadesse Woldemariam	M	Addis Ababa University
14	Kassaye Aragaw Likdete	M	Hawassa University
15	Gizachew Hailegebreal Demissie	M	Hawassa University
16	Ismail Mohamed Handule	M	Jigjiga University
17	Nurya Abas Nure	F	Jigjiga University
18	Yosef Deneke Belachew	M	Jimma University
19	Hailu Degefu Awash	M	Jimma University
20	Wubit Tafese Mhatebu	F	Jimma University
21	Fentaye Kassa Gashe	M	Wolaita Sodo University
22	Fitsum Dulo Dana	M	Wolaita Sodo University
23	Solomon Tsegaye Adane	M	Woldiya University
24	Shiret Belete Zewudia	M	Woldiya University
25	Nesibu Awol Ababelgu	M	Wollo University
26	Tilahun Bekele Hailemariam	M	Wollo University
27	Eyob Hirpa Tola	M	Wollega University
28	Efrem Degneh Bijiga	M	Wollega University
29	Kassaw Amssalu Tadesse	M	MoA
30	Asayegn Bekele Debele	M	MoA
31	Yohannes Getinet Tessema	M	CEVA Sant Animale
32	Gewado Ayledo Gellebo	M	EVA

Annex 2. Et CPD ToT training program

Day 1	Introduction, CPD framework, adult learning principles and practices
0845–1015	Introductory session—Mamusha Lemma/Fasil Awol/Gewado Ayledo
1015–1045	Coffee break
1045–1200	Framework and implementation of the Ethiopian CPD program Chris Daborn
1200–1330	Lunch break
1330–1500	VRRM and CPD HEARD TAT—Samie Mulat
1500–1530	Tea break
1530–1645	Adult learning principles and practices—Mamusha Lemma
1645–1700	Review of the day—Mamusha Lemma/Chris Daborn
Day 2	CPD training methodology, PVS standards and the digital education platform
0845–0900	Day 1 recap—Mamusha Lemma
0900–1015	Instructional design process, active learning methods and materials—Mamusha Lemma
1015–1045	Coffee break
1045–1200	OIE PVS, levels of advancement and CPD training needs—Chris Daborn
1200–1330	Lunch break
1330–1500	Digital education platform Iowa/Ohio/Gondar—Molly Lee/Amanda Berrian/Armando Hoet/Adugna Berju
1500–1530	Tea break
1530–1645	Learning monitoring and measurement methods—Mamusha Lemma
1645–1700	Review of the day—Mamusha Lemma/Chris Daborn
Day 3	Accessing and adaptation of available CPD learning materials
0845–0900	Day 2 recap—Mamusha Lemma
0900–1015	Online learning methodologies FAO HQ—Jenny Maud
1015–1045	Coffee break
1045–1200	Virtual learning centres FAO—Gerald Mucheru
1200–1330	Lunch break
1330–1500	Review of existing learning materials—Group work—Chris Daborn
1500–1530	Tea break
1530–1645	Review of existing learning materials—Group presentations—Chris Daborn
1645–1700	Review of the day—Mamusha Lemma/Chris Daborn
Day 4	CPD module format and learning approaches
0845–0900	Day 3 recap—Mamusha Lemma
0900–1015	Development of standardized OIE compliant CPD modules—Chris Daborn
1015–1045	Coffee break
1045–1200	Animal health competency mentoring framework Brooke Et—Alemayehu Hailemariam
1200–1330	Lunch break
1330–1500	Learning approaches for CPD group work—Chris Daborn
1500–1530	Tea break
1530–1645	Learning approaches for CPD group presentations—Chris Daborn
1645–1700	Review of the day—ML/CD
Day 5	Allocation of CPD topics, work plans and post training support
0845–0900	Day 4 recap—Mamusha Lemma
0900–1015	Review and prepare CPD module course outlines—Chris Daborn
1015–1045	Coffee break
1045–1200	Present and feedback on CPD module course outlines—Mamusha Lemma
1200–1330	Lunch break
1330–1500	Reflections, course evaluation and next steps—Mamusha Lemma/Chris Daborn
1500–1530	Certificate award, closing and tea break

Annex 3. The training process in pictures



Hung Nguyen (left) and Theodore Knight-Jones (right) welcoming participants and explaining the purpose of the CPD program and the training (photo credit: ILRI/Hiwot Desta).



Gewado Ayalew, EVA, giving overview of the CPD program (photo credit: ILRI/Hiwot Desta).



Theodore Knight-Jones, herd health team leader, awarding certificates for participants (photo credit: ILRI/Hiwot Desta).

The Health of Ethiopian Animals for Rural Development (HEARD) project is financed by the European Union.

Among others, one of the objectives of the project, 'improving the technical competencies of veterinary service providers to enable them to deliver better and provide rationalized services' is jointly implemented by the International Livestock Research Institute (ILRI) and the Ethiopian Veterinarians Association (EVA). The lead implementer of the HEARD project is the Federal Democratic Republic of Ethiopia's Ministry of Agriculture.

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of the authors and do not necessarily reflect the views of the European Union.

Funded by the European Union



Implemented by



In partnership with

