

Module on Livestock emergency Guidelines and Standards (LEGS)

Module Development Team

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1. Course Introduction

1.1. Course Title: Livestock Emergency Guidelines and Standards

1.2. Course Code:

1.3. Credit points:

1.4. Target trainees

- Animal Health Professionals (Actors) such as:
 - Veterinarians
 - Veterinary Specialists
 - Community Animal Health Workers
 - Animal Health Technicians
 - Laboratory Animal Technologists
 - Veterinary Para-professionals
- Managers and technical staff working at federal, regional, zonal and district levels including livestock authorities working in pastoral and disaster prone areas
- Government staff at all levels who are involved in the coordination of emergency response, including assessment and approval of NGO emergency projects
- Extension and development workers involved in intervention of drought and other disaster management activities
- Managers, coordinators and technical staff working for NGOs engaged in humanitarian works in disaster prone areas
- Universities teaching subjects related to pastoral development, rural development, humanitarian assistance, disaster risk reduction or related topics
- Research institutes and universities conducting research in pastoral areas

2. Course format

2.1. Module description and rationale

Livestock production plays an important role in the livelihood of millions of people in Ethiopia. Although it is an integral part of agriculture in all production systems and agro-ecologies, a large number of livestock is found in the pastoral areas, which is an important means of livelihood for more than four million people. The huge areas of Ethiopia occupied by pastoralist communities represent one of the most important economic, cultural and natural resources of the country. However, for many years Ethiopian pastoralists have faced repeated droughts and experienced emergency interventions which have often undermined development programs. Ethiopia's arid or semi-arid pastoral lands comprise approximately 63% of the total land area. Pastoralists own 73% of the goats, 25% of the sheep, and 20% of the cattle and all camels. Pastoralist areas face human population growth and recurrent drought, with some indications that the frequency and severity of drought is increasing. This is coupled by low levels of infrastructural development and weak social services. These features of pastoralist areas mean that despite their wealth in livestock assets, pastoralist communities remain highly vulnerable and subject to repeated episodes of short-term humanitarian assistance. Humanitarian assistance in pastoral areas has been dominated by food aid since emergency interventions began in the 1970s, and food aid provision has been based on the objective of saving human lives. However, it is increasingly recognized that emergency assistance during drought or flood should also aim to protect people's livelihoods. In pastoral areas, livelihoods-based emergency programming means protection of pastoral livestock in appropriate numbers, and support to the services and markets which are needed to assist rapid recovery. Therefore, livelihoods-based programming aims to avoid undue disruption to local service providers and markets, and where possible, work with local actors to design and deliver drought or flood assistance. Standard livestock emergency guidelines are, therefore, needed during drought action plan with interventions to save livestock, including supply of feed and water, veterinary inputs, livestock purchase centers and mobile abattoirs. Applications of such emergency aids require awareness among aid providers and professionals. This module is intended to provide training on how to design and implement different types of intervention during drought and disasters. The module is divided into six units including Introduction to Livestock Emergency Guidelines and Standards (LEGS), Livelihoods-based livestock responses in emergencies situation, National level Livestock emergency guidelines, Common Standards for livestock emergency interventions, Technical standards for livestock emergencies interventions and Monitoring and evaluation for common and technical standards.

2.2. Course duration: The duration of this module is 15 hours. It comprises of 10 hours of theoretical lecture and 5 hours of practical and exercises.

2.3. Course objectives: As a general objective, the module aims to equip aid workers, relief workers, professionals, par-professionals and other individuals involved in emergency response in pastoral and disaster stricken areas with the knowledge and skills of emergency livestock-related interventions to save livestock, including supply of feed and water, veterinary inputs, livestock purchase centers and mobile abattoirs. The ultimate goal is to acquaint them with livestock emergency guidelines for better livelihoods during humanitarian assistance.

2.4. Learning outcomes

After completion of this module the trainees will be expected to have:

1. Knowledge and technical skills on different types of emergency livestock interventions and expected to:

- Be acquainted with the basic concepts of Livestock Emergency Guidelines and Standards' tools, design and implementation
- Apply destocking including both commercial and slaughter destocking with meat distribution
- Provide livestock feed supplementation to nucleus herd
- Provide emergency water supply for livestock
- Execute emergency veterinary care
- Restock livestock at the end of the disaster

2. Apart from these livestock specific emergency measures the trainee should be able to provide guidance on:

- Demonstrate skills in monitoring and evaluations of common and technical standards
- Coordination of emergency response
- Early warning, early response and contingency planning
- Community participation
- Gender issues
- Monitoring and evaluation
- Outstanding learning and research issues

2.5. Course Contents

The topics included in this course/module are presented in the following Table.

Module Description, Contents and Learning Outcomes		
Unit	Content	Learning Outcomes
I. Introduction (2 hours)	Introduction to Livestock Emergency Guidelines and Standards (definitions and scopes).	Describe what the Livestock Emergency Guidelines and Standards means and its origin.
	The origins of Livestock Emergency Guidelines and Standards.	Explain the role of the Livestock Emergency Guidelines and Standards.
	Importance of Livestock Emergency Guidelines and Standards and its applications.	Indicate the key elements of international Livestock
	Overview of international and national guidelines.	Emergency Guidelines and Standards.
	Role of guidelines in decision making process.	Demonstrate the ability in decision making during humanitarian aids.
	Limitations of Livestock Emergency Guidelines and Standards.	
II. Livelihoods-based livestock responses in emergency situations (2 hours)	Relationship between livelihoods and emergencies.	Recognize the importance of livestock for the livelihoods of poor farmers.
	Relationship between livestock and livelihoods.	Describe the socio-economic consequences of animals diseases
	Livestock and a rights-based approach. The impact of emergencies on livestock keepers.	Explain the impact of emergencies on livestock keepers, their problems and challenges
	Consequences of Complex and Chronic Emergencies.	
III. National / regional level Livestock emergency guidelines (3	Ethiopian livestock emergency situations and existing guidelines (Pastoralism in Ethiopia and drought).	Describe the existing livestock guidelines, their limitations and strengths

hours)	Policy implications and outstanding issues.	
	Common Principles for all Livestock Interventions (Coordination, Analytical approaches and models, Preparedness and contingency planning, Community participation, Rapid assessment at community level, Targeting of interventions).	Explain elements of the national LEGS
		Demonstrate capacity in destocking, identification of nucleus herds, solicitation of sources of feed and water
	Destocking and Market Support (Coordination issues, Slaughter destocking).	
	Livestock Feed Supplementation (Needs assessment and planning issues, Design and implementation of livestock feed supplementation, Monitoring, evaluation and impact assessment).	Indicate how the feed and water can be distributed to the nucleus herd
	Emergency Provision of Water to Livestock (Needs and feasibility assessments of water sources, Water source selection and intervention design).	Provide emergency veterinary and animal welfare services
	Animal Health Interventions (Mass treatment and vaccination programs, Clinical veterinary care, Support to public sector veterinary functions during emergencies).	Restock livestock
	Restocking.	
Unit IV. Common Standards for livestock emergency interventions (3 hours)	Community Participation Initial assessment Coordination of emergency responses Early warning, early response and contingency planning Targeting Monitoring and evaluation, and livelihoods impact Technical support and competencies Advocacy and policy	Recognize the local community structures Coordinate all emergency interventions Monitor and evaluate the impacts

Unit V. Global technical standards for livestock emergencies interventions (3 hours)	Technical standards for destocking (assessment and planning, commercial destocking, slaughter destocking)	Set standards for the implementation of destocking
	Technical standards for Emergency veterinary care (Assessment and Planning, design and implementation, Zoonotic diseases, Sanitation and food hygiene, Livestock disease surveillance)	Apply destocking methods
	Technical standards for Livestock feed supplementation (Assessment and planning, Support for the initiation of livestock movements, Feeding levels, Feed safety, and distribution of feed resources)	Able to identify the types of veterinary services needed Demonstrate ability to implement emergency vet. care Monitor the impacts of emergency vet. Care Demonstrate ability to respond to feed shortage
	Technical standards for the provision of water (Assessment and planning, Location of water points, Water point rehabilitation and establishment, Water sources and quality, Logistics and distribution)	Identify the sources feeds and distribution mechanisms Demonstrate ability to locate water sources
	Technical standards for livestock shelter and settlement (Assessment and planning, Livestock settlement, Livestock settlement infrastructure, Livestock shelter, Disaster risk reduction and preparedness)	Identify water trucking Ensure timely distribution of safe water
	Technical standards for the provision of livestock (Assessment, Definition of the package, Credit, procurement, transport and delivery systems, Additional support)	
Unit VI. Monitoring and evaluation for common and technical standards (2 hours)	Monitoring and evaluation of participation, coordination and response, initial assessment, targeting	Understand monitoring and evaluation criteria
	Monitoring and evaluation of technical standards of destocking, provision of feed, provision of water, veterinary service	Monitor and evaluate emergency interventions
	Policy implications	Explain the policy

2.6. Learning Approaches

- Lectures: delivery of the topics using Microsoft power point presentation
- Review of literature and presentation
- Group assignment and collaborative studies
- Independent study and learning by reflection
- Case studies and presentation (compilation of experiences of different countries and assessment)

2.7. Measurement of Learning

The assessment will focus on the skill and scientific knowledge obtained during the training with reference to the objectives. Competencies will be defined on the basis of knowledge, skills, attitudes, and aptitudes that the trainees must acquire throughout their Coursework. Related competencies will be collated into Spheres of Activity, which represents core skill areas. The outcome of the assessment will be used as a feedback for future improvement.

2.8. Required reading materials

1. Ministry of Agriculture and Rural Development (2008). National Guidelines for Livestock Relief Interventions in Pastoralist Areas of Ethiopia, Ministry of Agriculture and Rural Development, Addis Ababa, Ethiopia. 105 pp.
2. LEGS (2014). Livestock Emergency Guidelines and Standards, 2nd edition Rugby, UK: Practical Action Publishing <http://dx.doi.org/10.3362/9781780448602>.
3. The Livestock Emergency Guidelines and Standards Uptake in Ethiopia and Kenya against Trends in Humanitarian and Development Assistance. Africa Regional Office Feinstein International Center Tufts University, 2012; 25 pp.
4. LEGS (2009). Livestock Emergency Guidelines and Standards Project. Practical Action Publishing Schumacher Centre for Technology and Development Bourton on Dunsmore, Rugby, Warwickshire CV23 9QZ, UK, 265 pp. www.practicalactionpublishing.org.
5. Improved animal health for poverty reduction and sustainable livelihoods. Animal Production and Health Division FAO Agriculture Department. FAO Animal Production and Health Paper 153, 2002, Rome, 47 pp.

6. FAO (Food and Agriculture Organization of the United Nations) (2015). Technical Interventions for Livestock Emergencies: The How-to-do-it Guide, Animal Production and Health Manuals Series, FAO, Rome.
7. Aklilu, Y. and Wekesa, M. (2002) Drought, Livestock and Livelihoods: Lessons from the 1999–2001 Emergency Response in the Pastoral Sector in Kenya, Humanitarian Practice Network Paper No. 40, Overseas Development Institute (ODI), London, <http://www.odihpn.org/documents/networkpaper040.pdf>.
8. OIE (World Organisation for Animal Health) (2013). ‘Killing of Animals for Disease Control Purposes’, in Terrestrial Animal Health Code, chapter 7.6, OIE, Paris, http://www.oie.int/index.php?id=169&L=0&htmfile=chapitre_1.7.6.htm.

3. Requirements to comply with OIE CPD Module Standards

3.1. Module preparation Teams’ biography

Teshale Sori holds a DVM from Addis Ababa University, MSc degree from Institute of Tropical Medicine, Belgium with specialization in Preventive Veterinary Medicine and PhD from University of Gent, Belgium with specialization in Veterinary Epidemiology. Teshale has worked for two years (2000-2001) as assistant researcher at Bako Agricultural Research Center, Bako western Ethiopia and two and have years (2002-2004) as junior research officer in the National Veterinary Institute, Bishoftu, Ethiopia. During those years Teshale has got acquaintance with field veterinary applications and the need for up-to-date knowledge for effective delivery of animal health activities. Teshale joined the College of Veterinary Medicine and Agriculture, Addis Ababa University in 2004 where he has been working as an instructor of Analytical Veterinary Epidemiology, Infectious diseases of livestock and Biostatistics. During his MSc training in the Institute of Tropical Medicine, Antwerp, Belgium, Teshale has demonstrated outstanding performance for which he was awarded “a Laureate of the Provincial Council of Antwerp”. As part of production of future generation scientists Teshale advised over 42 MSc and two PhD students to graduation. He has served as peer reviewer for eight international and two national journals. More than 45 MSc theses and three PhD dissertations have been assessed from Jimma, Hawassa, Addis Ababa, Arbaminch, Haramaya and Ambo Universities. In 2020, Teshale was nominated “Fellow of the Academy, under the Agricultural Sciences Working Group”. Teshale also provided consultancy and supervision to the farming community especially in the area of poultry and dairy development activities. Served as a member of a task force for technical assistance to strengthening fish disease diagnosis, surveillance and monitoring capacity (TCP/ETH/3805) and member of the task force for A knowledge and Technology

gaps in the Unknown Camel diseases (UCD) and Exploring alternative development options in Pastoral and Agro-pastoral areas (PAP) areas of Ethiopia. In addition, Teshale was co-investigator of Parasite mapping project- funded by Bill and Melinda Gate foundation through (BMGF) “Grant OPP1125367 through ClinVet International (Pty) (project no. CV 16/337” understanding the epidemiology of ticks, tick-borne diseases and internal parasites of cattle for better control.

Dr. Zerihun was born in North Shewa, Ethiopia and received his Doctor of Veterinary Medicine degree (DVM) from Addis Ababa University in 2001. Following graduation, he began work at Ethiopian Institute of Agricultural Research as assistant animal health researcher. He was very active in dairy health research and published about seven papers on the subject matter. Later, he moved to the Addis Ababa University College of Veterinary Medicine's Donkey Health and Welfare Project, where he worked for about six years. He began his MSc studies at Addis Abeba University, CVMA, and graduated with an MSc in Veterinary Epidemiology in 2017. He then joined the college as an assistant professor. Dr. Zerihun has taught several courses, including analytical epidemiology, advanced biostatistics, basic epidemiology, animal welfare and behavior, and others. He has worked in research institutes and academia for over 11 years. Dr. Zerihun received training in Statistical and mathematical modelling of infectious disease, SPS Regulations, and Science-based Risk Analysis from ILRI, Tuskegee, and USDA in Kenya and Uganda, respectively. He also received a higher diploma from AAU in Competency Teaching in Higher Education Institutions. He has extensive experience in data management and analysis using different statistical software such as STATA, SAS, R, @risk, Graph prism, SPSS and Quantum GIS. Zerihun's areas of interest include risk analysis and mitigation, infectious disease modelling, Livestock emergency preparedness and response, and disease surveillance and monitoring. Dr. Zerihun has authored and co-authored over 20 articles in international and local journals in his research areas.

Facilitated Learning

All the teaching materials and courses/modules covered will be available in both soft and hard copies and will be given to trainees before the commencement of the training.

CPD Module Assessment

The feedback from trainees and stakeholders will be used as a guide to assess the module to make the necessary enhancements and ensure translation into trainees learning experience. Sustainable quality can be assured through assessment and follow up of the feed through establishment of quality assurance committee by EVA. The committee should incorporate both professionals and trainees for effective feed and monitoring of amendments made.

The professionals:

- Explain the purpose of collecting feedback, the methods that will be utilized, how it will be analyzed, how and when the findings will be considered and how actions will be taken as a result
- Encourage trainees to reflect on their training experience
- Communicate responses to trainees and the trainers
- Communicate matters of interest arising from assessment and feedback from trainees to EVA and the trainers

The trainees:

- Reflect on their learning experience
- Provide feedback on their learning experience and other relevant/associated matters

EVA can also use a variety of mechanisms to obtain trainees feedback to promote dialogue mainly through course evaluation questionnaires. It has to set out its requirements for gathering course evaluation data from students via questionnaires in its Course Evaluation Policy. The questionnaire should focus on the courses not on individuals. The policy should cover means of collecting, presenting and responding to the questionnaire data.