



SHEEP AND GOAT PRODUCTION

TRAINING FACILITATOR'S GUIDE



Fig: Goat House made of mud-brick that has been under construction

**EMPOWERING NEW GENERATION TO IMPROVE NUTRITION
AND ECONOMIC OPPORTUNITIES
(ENGINE)**

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GLOSSARY

Doe	Female Goat
Ewe	Female Sheep
Parturition	Act of giving birth
Puberty	Stage of physiological maturity when sheep and goat are capable of sexual reproduction
Ram	Male Sheep
Buck	Male Goat
Heat	a time during a female sheep's and goat's reproductive cycle when they are fertile and ready to mate

INTRODUCTION

ABOUT THE TRAINER GUIDE

The **ENGINE Sheep and Goat Production Training Facilitator's Guide** is designed to assist in the training of smallholder households in improved sheep and goat production and marketing. It was specifically created to be a training aid for ENGINE staff and partners when working with sheep and goat producers supported by ENGINE program. This guide can be adapted by other organizations and institutions for their own field trainings. It is a simple manual to use and gives various options for training facilitators. The main focus is on "learning by doing" and this is conducted through in class exercises and practical applications in the field.

This guide serves as a "roadmap" for training facilitators. It is designed to be used in conjunction with the **ENGINE Livestock Producers Sheep and Goat Production Handbook**, which is the technical reference manual. This facilitation guide is focused on supporting the trainer in conducting the trainings, offering suggestions for approaches, in-field demonstrations, case studies, materials, and time frame. The facilitator guide parallels the *Livestock Producers Sheep and Goat Production Handbook* and includes sheep and goat husbandry, which encompasses management, reproduction, housing, feeding and healthcare. Both the facilitator's guide and production handbook include chapters on human nutrition education and gender integration.

OVERALL TRAINING PURPOSE

Upon completion of the full 10-session training, participating households will be able to:

- Understand, demonstrate and invoke change in approaches to sheep and goat reproduction, management, housing, feeding and healthcare. Essentially, they will adopt improved techniques for sheep and goat production.
- Will be knowledgeable in the importance and role of animal-sourced food (meat and dairy) in human diets.
 - Households will be better positioned to improve family health and nutrition through better feeding practices and increased production from their own herds.
- Have a greater awareness of gender-related issues in sheep and goat rearing, both constraints and opportunities. Participants will be more knowledgeable in the importance and benefit of women's participation and her control and decision-making role in household financial and asset management.
 - Through increased control and decision making about cash and asset management, ENGINE anticipates that supported households will be more food secure and have basic needs addressed because women have a greater voice in the household.

RECOMMENDED TRAINING MATERIALS

Below is a list of recommended training materials. This guide gives specific directions on material use for each training session. It is the responsibility of the trainer to organize these materials and have them available.

- Illustrations (photo, pictures, drawings).
- Live animals (sheep or goat at heat, pregnant and lactating) of animals brought to rural health post seeking animal health service or husbandry practice
- Locally relevant veterinary drugs, vaccines and equipments in the rural vet post (clinic)
- Field visit to nearby Farmer Training Center(s) or farmer's house to see improved forage development, preservation (hay or straw) making, etc

- Field visit to a village to see improved sheep or goat housing.

TRAINING METHODS AND TECHNIQUES

<ul style="list-style-type: none"> ▪ Group Exercise ▪ Lecturing ▪ Brainstorming ▪ Field visit 	<ul style="list-style-type: none"> ▪ Question and answer ▪ Case study ▪ Role play ▪ Demonstration
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PREPARING FOR THE TRAINING

Training Venue:

It is important that the training venue be suitable for training; FTCs closer to farmer's/trainees' homes is a good option as it often has the space and 'hand-on' facilities and materials beneficial to these trainings. We recommend that participants be seated so that they can see each other equally (i.e. in a circle/oval) and that the trainer is also comfortable. We advise AGAINST setting people in a typical 'classroom' set-up where the trainer is in front and participants sit in rows facing the trainer. This does not encourage dialogue and peer-to-peer learning. The venue has should have enough space either in one room or around the facilities to allow trainees to break into small groups (teams) for more productive and intimate discussions and activities.

Preparation:

We suggest that the trainer prepare each session/group exercises in advance and decide on the most effective way of communicating the information. Practice conducting the session or training. For some sessions, simple materials are needed like large sheets of paper, markers, pens, pencils, ropes, etc. While other sessions are more involved and may take several days to organize, especially when a field visit is recommended. Be sure to plan the exercises well in advance and make sure you are familiar with them and the related subject area. We highly encourage trainers to prepare "energizers", quick activities that re-energize participants when the energy level is down. These are not included in this manual. If you do not know any 'energizers', the following web sites may stimulate your creativity:

- ✦ <http://www.meetingenergizers.com/>
- ✦ <http://www.ksde.org/LinkClick.aspx?fileticket=%2fIANJbRI2QM%3d&tabid=4067>
- ✦ <http://www.sustainable-employee-motivation.com/ice-breaker-games.html>

Stationer materials required:

- A white board/stand
- Flip chart and markers
- Masking tape Pencils
- Printed pictures, photos and drawings
- Writing pad (only for literate trainees)

Facilitator Guide:

This guide provides step-by step direction for conducting exercises to help the participants learn techniques of improved sheep and goat production. The trainer should not feel limited by this training manual. We encourage trainers to develop their own exercises, case studies, and training tools. As the trainer becomes more experienced, we fully expect him/her to add to the trainings, adapt approaches, and tailor them to the specific needs of the communities.

SESSION 1: GETTING TO KNOW EACH OTHER

Session Objective:

- I) By the end of this session, participants will be able to get to know each other and become comfortable working with each other.
- II) The group will have established workshop norms and rules: start and day, end time, communication and participation, punctuality, use of cell phones, etc).

Duration:

- 15 minutes

Materials required:

- Markers and flip chart

Activities:

- Welcome the participants to the sheep and goat training. Thank them for their time and for joining the group.
- Conduct an 'ice breaker' to make participants feel at ease and motivate them. They should know this will be an important – and exciting – training!
- Ask the participants to introduce themselves. Ask each participant the following questions:
 - ✦ What is your name?
 - ✦ Where are you from?
 - ✦ Which domestic animal you like most and why?
 - ✦ What is your experience with sheep or goat rearing?
- Ask participants:
 - ✦ Why are we here? What are your expectations from this training?
 - ✦ Listen carefully to their responses and then using the training time table share with participants the training objectives & agenda
 - ✦ Review the 3-day training Agenda and tell participants that the focus of this training will be to help them become better and more profitable sheep and goat producers and better equipped to provide for their families as the sessions include discussions of human nutrition and gender roles.
- Write down suggested training norms that trainees proposed and gain agreement on the final meeting 'best practices'

Day	Major topics to be covered	Remark
Day 1	<ul style="list-style-type: none">▪ Introduction on Sheep & Goat Production▪ Sheep & Goat Reproduction▪ Sheep & Goat Management	Please refer to the facilitator guide to see time allotted for each session
Day 2:	<ul style="list-style-type: none">▪ Improved Sheep & Goat Housing▪ Improved Sheep & Goat Nutrition and Feeding▪ Sheep & Goat Flock Health	
Day 3:	<ul style="list-style-type: none">▪ Economics of Sheep & Goat Production and Marketing▪ Benefits of Sheep & Goat for Human Nutrition and health▪ Gender in Sheep and Goat Production	

SESSION 2: BACKGROUND INFORMATION ON SHEEP & GOAT PRODUCTION

Learning Objective:

- I) By the end of this session, training participants be able to describe the reason why they keep sheep and goat, what special features sheep and goat have and major constraints of sheep and goat rearing

Duration:

- 90 Minutes

Training Materials:

- Markers and flip chart
- Printed case study
- ENGINE Livestock Producers Sheep and Goat Production Handbook Chapter(s) one

Training methods and techniques:

- Brainstorming
- Case study
- Question and answer

Activities:

- I) Divide trainees into 3 smaller groups and ask them to discuss their knowledge, concerns, and interest in goats/sheep. Have them elect a group representative who will share the group discussion with the larger group. (15 minutes) Points they are to share with the group:
 - a. Group 1: Discuss the reasons they keep sheep and goat
 - b. Group 2: Discuss the special features sheep and goats have that make them preferred livestock.
 - c. Group 3: Discuss the major constraints they experience in successful, productive sheep and goat production and marketing.
- II) Trainer: Write down group response on a flip chart and make summary (10 minutes).
- III) Trainer: Read Case Study 1 (next page) to the trainees. Remember to read slowly and clearly so they easily follow. (10 minutes)

After the case study:

- I) When you are finished reading, ask the participants to share what new information they heard from the case study. Go around the room allowing each person time to respond. (15 minutes)
- II) Summarize the session on a flip chart. Review why sheep and goat are commonly kept by the rural communities, what special features sheep and goat offered and the major constraints facing sheep and goat. (45 minutes)

Case Study 1: Sheep and goat as an economic and cultural asset and their role in human nutrition

In Alamata Woreda, Tigray Region Ethiopia, a woman called Awotash Tesfaye is rearing sheep and goat. Her husband died of disease and she is raising their two children. Her younger baby boy is 10 months old while her older baby girl is 3 years.

The sheep and goat she is rearing provide significant economic and nutrition benefit to her family. She keeps sheep and goat primarily for sale, meat production, and household milk consumption. The animals play a secondary role as farmland fertilizer, a 'savings' account, and serve in cultural and religious aspects of the household, such as "Zeka".

Awotash generates direct income from the sale of sheep and goat offspring and the sale of the skins when she slaughters an animal. This is an important income source for her. Through the assistants of a local support group, Awotash learned how to turn the hides into handicrafts like carpets, dolls, and artwork. She now makes handicrafts for home use and sale. Awotash's own mother and father were good farmers. They taught her to compost livestock manure and add it back to the fields for better crop production. After several seasons of doing this with her goat and sheep manure, she has increased crop yields, which translated into increased income when she sold the crops.

One of her three dairy goats and two of her dairy sheep gave birth a month ago – all producing twins for six new members to her flock. She is milking the milking goat and sheep twice a day (early in the morning and late in the afternoon). She collects a cup (1/3 of a liter) per day per milking goat and sheep. In Total, Awotash is milking a liter of milk from her goat and sheep.

Awotash noticed the importance of milk for her younger children mental and physical development. Therefore, she gives a majority of the milk to her young children. When she collected sufficient milk she served them plain milk otherwise she cooked the milk with "Shiro wot" and feed her children. Her children have a lot of energy, do not get sick easily, and are growing strong.

Unfortunately, Awotash still encounters many challenges that she is trying to cope with. Most recently, she has lost two of the newborn animals, is having problems securing enough feed for her flock, and cannot obtain credit from the local financial institutions.

SESSION 3: SHEEP & GOAT REPRODUCTION

Learning Objectives:

By the end of this session trainees will

- I) Be able to describe important cycles of sheep and goat reproduction, including selection of breeding stock, mating practices, gestation and birthing, and care of newborn animals.
- II) Knowledgeable in the causes of reproductive failures and capable to take corrective measures
- III) Be able to identify the different stages of parturition, normal-abnormal presentations and be skillful on kidding/lambing preparation and how to assist delivery

Duration:

- 120 minutes

Training Materials:

- Markers and flip chart
 - Live animal (sheep or goat)
 - Printed role play cards
 - Case study
 - Antiseptics (Savlon/Dettol, Iodine tincture)
- ENGINE Livestock Producers Sheep and Goat Production Handbook Chapter(s) two

Training Methods and Techniques:

- Brainstorming
- Role play
- Flip chart presentation
- Demonstration
- Case study
- Display printed pictures

Activities:

- I) Divide trainees into 5 small groups and assigned each group roles mentioned below:
 - ✦ **Group 1:** using their life gained knowledge investigate what factors affects puberty.
 - ✦ **Group 2:** Identify the characteristics of heat in sheep and goat and determination of when to mate the animals.
 - ✦ **Group 3:** Identify reproductive failure in sheep and goat.
 - ✦ **Group 4:** Outline preparation techniques and materials prior to kidding in goats and lambing in sheep.
 - ✦ **Group 5:** Stages of parturition in sheep and goat and delivery assistance
- II) Once the five groups are formed, carefully read Case Study 2 (next page) to them. (5 minutes)

- III) Each group is to discuss and compare with their own experiences the Case Study from the perspective of their assigned topic. (10 minutes)

After the case study:

- I) Ask each group to select a representative to present the outcomes of their discussion. Remind groups to summarize their learnings from the Case Study as well as their own experiences. (30 minutes)
- II) Trainer: While the groups are presenting, use the information they are sharing to summarize sheep and goat reproduction in a flip chart. Include the estrus cycle, causes of reproduction failure, preparation for parturition, etc. The summary should integrate all of the issues, not just repeat what is being said.
- III) Display printed pictures that show parturition stages and explain each phase. Ask participants whether this is how they understood the birthing process, what new information they have learned, any questions they may have, etc. (15 minutes)
- IV) Display printed pictures of normal vs. abnormal presentation of fetuses. Explain the challenges in birthing each abnormal presentation and how to correct the situation. (15 minutes)
- V) Demonstrate hygienic delivery assistance. (15 minutes)

Case Study 2: Managing for reproductive success in sheep and goats

Talchitu is the chairperson of a women's group in Gorche Woreda, Sidama Zone, SNNPR in Ethiopia. The USAID/ Save the Children ENGINE program has supported her with four female sheep so she can better provide for her family and be a community-based role model. She lives with her husband, three children, and four grandchildren. Since Talchitu received the sheep, she has sold two lambs and slaughtered one lamb for consumption. She is immensely proud of her four female sheep received from the program. Unfortunately, not all of her peers are doing well with their own sheep. Three of her group members (Qawatu, Aratu and Mesele) are complaining the poor performance of their female sheep they received from ENGINE.

Qawatu's Complaint:

The female sheep received are poor in body weight/condition and displaying erratic heat cycles. Qawatu keeps the female sheep completely separated from the male she already owned. The female sheep are delayed in their heats making it difficult for Bethlehem to plan for breeding. Bethlehem has not provided a shade structure or source of shade. This could potentially reduce the negative effect of heat on the sheep reproduction performance. The sheep graze on rain-fed pasture; no supplementary feed is provided for them. Since owning the animals, only one of the sheep has become pregnant while the remaining four have not conceived.

Aratu's Complaint:

Aratu is having problems detecting estrus in her female sheep. Aratu does not own a male sheep. Because she cannot tell when the females are in estrus, she is not able to secure a male for breeding in a timely manner. Unlike her neighbors' sheep, which conceive during or following the short rains in March through May, Saba has not been able to successfully breed her females.

Mesele's Complaint:

Mesele is growing increasingly frustrated by the sheep she received from ENGINE. She does not see how they are benefiting her. She complains that:

- Many of her sheep have failed to mate;
- Most of her mated animals are not conceiving/becoming pregnant;
- The few that have come pregnant have either lost their fetuses (aborted) or;

- Lost their offspring (neonatal mortality) before the time of weaning.
- Several of her pregnant sheep were unable to deliver because the fetus presented with two front legs and the head twisted back. Her husband tried to assist delivery but was not successful.
- Another female delivered her offspring without any assistance from Mesele or her husband. Unfortunately the newborn was found dead. Of her flock of 75 animals, 73 are female and two are male.
- Mesele has also complained that the male sheep have undersized testicles

SESSION 4: SHEEP & GOAT MANAGEMENT

Learning Objectives:

By the end of this session trainees will

- I) Be able to apply improved sheep and goat husbandry practices including the care and management of lactating ewe/doe and newborns for reduced newborn mortality;
- II) Understand techniques of lamb/kid grafting and orphan care;
- III) Know why tail docking, hoof trimming, castration and weaning are important and be able to carry out these practices as required on their own farms;
- IV) Understand potential risk associated with unhygienic milking practice and skilled in hand milking and keeping milk clean;
- V) Understand the need to keep records, which records to keep, and how to keep records.

Duration:

- 90 minutes

Training materials:

- Marker and flip chart
- Lactating ewe or doe
- Hoof knife
- Burdizzo
- Antiseptic (Iodine, Savlon)
- Gauze and Bandage
- ENGINE Livestock Producers Sheep and Goat Production Handbook Chapter(s) three

Training Methods and Techniques:

- Question and answering
- Group discussion and feedback
- Flip chart presentation
- Demonstration

Activities

- I) Assign each participant a number by asking them to count (one by one) from 1 thru 10.
- II) Once they have their number, ask participants to form groups based on their assigned number.
- III) One representative from each group will present all that they know about the topic assigned to their respective number (below). (20 minutes).
- IV) Assigned roles for the group
 - ✦ **Number 1:** What care and management do lactating ewes or does need?
 - ✦ **Number 2:** What care and management do you think newborn kids and lambs need?

- ✦ **Number 3:** If a newborn kid or lamb's mother dies shortly after his/her birth, how do you care for the newborn kid or lamb?
 - ✦ **Number 4:** What major causes of kid/lamb mortality are known to you? What are the options to reduce newborn mortality?
 - ✦ **Number 5:** Why do you think tail docking is important in sheep? What is the appropriate age and some good techniques for tail docking?
 - ✦ **Number 6:** Do you think trimming hoof is important? Why?
 - ✦ **Number 7:** Why are male sheep and goats castrated? Why is it important? At what age can a male be castrated?
 - ✦ **Number 8:** Do you practice weaning? What are the techniques/practices to wean sheep and goats? At what age does this occur?
 - ✦ **Number 9:** Do you think record keeping is important? What do you think is important to keep? Do you keep records?
 - ✦ **Number 10:** Do you milk sheep or goats? If yes, demonstrate to the group all of the steps you followed when milking your animals.
- III) Once each person has presented their information on the topics, ask the other members of the group to add points not mentioned by the presenter. (20 minutes)
- IV) Trainer: Give a flip chart presentation of sheep and goat management. (30 Minutes)
- V) Trainer: Demonstrate tail docking, hoof trimming and castration following anti-septic measures. (20 minutes)
- VI) Trainer: Demonstrate hand milking and how to keep milk clean. (10 minutes)

SESSION 5: SHEEP & GOAT HOUSING

Learning Objectives:

- I) At the end of this session trainees will be able to understand the importance of keeping animal under a shade and skilled on how to construct sheep and goat house from a local material
- II) At the end of this session trainees are aware of basic sheep and goat house facilities of feeding trough and watering trough and enabled to prepare from locally available materials

Duration:

- 60 Minutes

Training Materials:

- Marker and flip chart
- Printed rural house picture
- Printed pictures of locally made feeding and watering troughs
- Drawing of mud-brick housing (use picture at the cover page of the facilitator guide)
- Local materials (barrel, metal sheet and burrowed wood)

Training Methods and Techniques:

- Flip chart presentation
- Field visit
- Display illustrations of rural house, feeding and watering trough
- ENGINE Livestock Producers Sheep and Goat Production Handbook Chapter(s)

Activities

- I) Give a flip chart presentation on the sheep and goat house site selection, housing design, space requirement and basic facilities of feeding and watering trough. (20 minutes)
- II) Display pictures of local rural sheep and goat housing. Initiate discussion focusing on the floor, wall and roof design, space requirement. Discuss whether trainees can make their own sheep and goat house in the way it is displayed in this picture. (10 minutes)
- III) Demonstrate how feeding and water trough can be made of from local materials. (10 minutes)
- IV) Field visit: Take participants to a nearby shamba that has sheep and goat housing. Ask trainees to compare what the actual house is different from what they learned. How can they modify designs or materials to make their own houses? (20 minutes)

SESSION 6: SHEEP & GOAT FEED AND FEEDING

Learning Objectives:

By the end of this session, participants will be

- I) Able to describe sheep and goat feeding habits, identify their most liked feed types, and understand preferred sheep and goat feeding practices.
- II) Knowledgeable in sheep and goat feed requirements during the different stages in the animal's life cycle.
- III) Able to develop improved forage in their compounds and farm boundaries, make use of crop by-products such as maize stovers and bran as animal feed, and skilled in feed preserving methods such as hay, straw, and silage making.

Duration:

- 180 minutes

Training Materials:

- Pictures (preparing maize as sheep and goat feed in various ways)
- Marker and flip chart
- Forage seeds
- Forage planting materials
- ENGINE Livestock Producers Sheep and Goat Production Handbook Chapter(s)

Training Methods and Techniques:

- Case study
- Presentation
- Group Exercise
- Field visit

Activities:

- I) Divide trainees into 3 new groups. Explain that you will be reading Case Study 3 (next page) and that after you have finished reading, they will join their group to discuss the Question (below) assigned to their (10 minutes)
 - ✦ **Group 1:** If they have a 1) pregnant, 2) lactating, 3) newborn or 4) sick sheep and goat, what should they feed that animal? What, if any, special technique should they use when feeding the animal?
 - ✦ **Group 2:** Is it possible for a smallholder farmer to produce and store their own forage? Describe how.
 - ✦ **Group 3:** Do they practice on-farm feed preservation, either hay or straw making, specifically for their sheep and goats? If yes, explain how you do this. If no, describe what you feed your animals with during the long dry period? Is this effective?
- II) Slowly and clearly read Case Study 3. (5 minutes)
- III) Groups discuss Case Study 3 in relation to their assigned questions.

After the case study:

- I) Ask each group to elect a representative to present to the larger group their response to their assigned question. (15 minutes)
- II) Trainer: Give flip chart presentation on sheep and goat feed and feeding. Pay special attention to feeding pregnant, lactating, sick and newborn. (30 minutes)
- III) Trainer: Give brief presentation on forage development and preservation. Give examples of locally available materials. (15 minutes)
- IV) Field visit: Take the group to see forage development in the FTCs and hay making at farmer's backyard or farm field. Initiate discussion on forage development and hay making and ask trainees 1) the differences between the 2 demonstrations and 2) whether they would be able to do this in their own homes. (90 minutes)

Case study 3: Sheep and goat feed/feeding best practices

In Western Oromia the long-tailed Horo sheep and goats are well adapted to the local climatic and farming conditions. They tolerate heat well and graze on a range of low quality forage sources. These animals respond well to supplementary feeding or improved diets. Typical farming systems for the area involve wheat, maize, soybean, lentils, vetch and sweet potato in various rotations that often include a fallow period.

Sheep and goats fit well into these farming systems and receive a variety of feeds depending on the time of year and the stage of their reproductive cycle. Low quality feeds such as straw are widely used to cover an animal's maintenance requirements especially during the long dry season when grazing and browse is inadequate. Steppe grassland, roadsides and marginal lands are important sources of feed from autumn to early spring. High energy feeds such as maize and legume grains and industrial by-products (for example, cottonseed cake and citrus pulp) are sometimes used to meet the nutritional needs of the animals.

The critical times of the year for both farmers and animals is during the long and short dry seasons when ewes and does are pregnant or lactating. The use of high quality supplements at these times helps both the animals and the natural pasture, which is allowed to rest and set seed for the coming rains. The use of improved grazing in the dry season (in the form of a specially grown forage crop in the backyard and farm boundaries) aids the use of straw stubbles and helps prevent overgrazing on the fragile rangeland. Thus, the rational use of diverse animal feeds supports sheep and goat production in a highly fragile environment.

SESSION 7: SHEEP & GOAT FLOCK HEALTH

Learning objectives:

By the end of this session, participants will

- I) Understand the importance of improved feeding, housing and herd management in the prevention and control of sheep and goat diseases.
- II) Be able to characterize sick versus healthy animals and make tentative diagnosis for the locally common diseases.
- III) Recognize the importance of animal vaccination in preventing the outbreak of the disease and/or treating sick animals early.

Duration:

- 120 Minutes

Training Materials:

- Live animal (sick and healthy)
- Printed pictures of sheep and goat disease
- Marker and Flip chart
- Veterinary drugs, vaccines and equipments
- ENGINE Livestock Producers Sheep and Goat Production Handbook Chapter(s)

Training Methods and Techniques

- Brainstorming
- Group discussion
- Demonstration
- Flip chart presentation
- Practical work on identifying sick vs. healthy animal

Activities

- I) Ask at least 3 trainees how do they know their sheep and goats are healthy or sick? Continue asking until no new answers are given. (15 minutes).
- II) Trainer: On a flip chart, summarize how trainees identify sick from healthy animals and compare with some of the recommended diagnostic techniques. (5 minutes)
- III) Demonstrate how to identify sick and health sheep or goat using live animal (15 minutes)
- IV) Ask participants to share with the group their thoughts on the connection between sheep/goat feeding, housing and management practices with sheep and goat health. (10 Minutes)
- V) Trainer: Give a presentation on the link between improved management and health (10 minutes)
- VI) Divide trainees into 2 groups: Sheep group and Goat group. Ask each group to list most important diseases of sheep and goat respectively. (10 minutes)
- VII) Trainer: Compare the disease list trainees mentioned and compare with disease types in the sheep and goat handbook (5 minutes)

- VIII) Trainer: Using illustrations of sheep and goat diseases, deliver flip chart presentation focusing on disease mentioned by trainees (20 minutes)
- IX) Trainer: Demonstrate veterinary drugs (anti-parasitic, anti-biotic) and vaccines and explain when to vaccinate or treat

SESSION 8: ECONOMICS OF SHEEP & GOAT PRODUCTION AND MARKETING

Learning Objectives:

By the end of this session, participants will

- I) Understand that sheep and goat production is a business and necessitates analysis of production, marketing and financial issues.
- II) Be able to complete a cost benefit analysis for their own production systems.
- III) Set minimum selling price for livestock sales.

Duration:

- 120 minutes

Training Materials:

- Marker and flip chart
- Printed case study
- ENGINE Livestock Producers Sheep and Goat Production Handbook Chapter(s)

Training Methods and techniques:

- Brainstorming
- Case study
- Group Exercise
- Role play

Activities

- I) Ask trainees to recall 2 local traders doing business of any type;
 - a. A trader who succeeded in his business
 - b. A trader who went bankrupt.

Ask them to brainstorm why they do think one has been successful when the other was not. (10 minutes)

- II) Give a flip chart presentation on production, marketing and financial analysis of any business venture including sheep and goat production (15 Minutes)
- III) Divide trainees into 3 equal groups and ask them to discuss the costs associated with sheep and goat rearing and how they set the kid/lamb selling price. When they are finished, ask them to present their discussions to the group. (15 minutes)
- IV) Give a flip chart presentation on planning and budgeting for sheep and goat production business. Demonstrate how to set a minimum selling price. (15 minutes)
- V) Slowly and clearly read Case Study 4 below (5 minutes)

After the case study:

- I) Ask trainees whether they are making same returns as Megertu. If no, do they know why?

- II) Initiate a discussion with trainees on how they can plan to access financial services, start saving, and, in the future, access credit (20 Minutes)
- III) Give a summary presentation on accessing and utilizing financial service. (30 minutes)

Case study 4: Linking sheep and goat production to financial services

Megertu is the chairperson of a women's group in Ginchi Woreda, Oromia Region in Ethiopia. The ENGINE program assists vulnerable households in the area with business training and marketing. Megertu lives with her husband, 2 of her children and 3 grandchildren. Megertu started keeping goats in 2012 and has sold 3 cross-breeds. She is immensely proud of her goats and of her status as the first woman in the area to receive the new breed of dairy goat.

"Before, my children were under-nourished, but now they are healthy and happy because of the milk. Money from the goats enabled my eldest daughter to go to secondary school. Any extra income we get from the goats pays for schooling."

Megertu has one improved breed buck and four does. The animals are housed in a shed with a tin roof to protect them from wild animals that live in the nearby mountains. Brick walls ensure that the animals keep warm during the colder nights.

Megertu initiated discussions in her group about establishing a village saving and credit association. Group members agreed it was a good idea and the women's group will soon establish a credit scheme. Members will contribute a set amount of Birr. This money will be used to give out loans for further goat-keeping activities. They believe more families should benefit from the project. Megertu is certain of the difference that the animals have made is easily seen in her thriving children and grandchildren. *"The goats have made my life very happy."* she says.

SESSION 9: BENEFITS OF SHEEP & GOAT IN HUMAN NUTRITION AND HEALTH

Learning objectives:

By the end of this session, participants will

- I) Understand how sheep and goats benefit human nutrition and health.
- II) Have a good understanding of the importance in children under 5 years of age and pregnant and lactating women regularly consuming animal source foods.
- III) Adapt their behavior in purchasing diversified food with the income generated from selling of livestock

Duration:

- 90 minutes

Training Materials:

- Marker and flip chart
- Colored paper
- ENGINE Livestock Producers Sheep and Goat Production Handbook Chapter(s)

Training Methods and Techniques:

- Brainstorming
- Flip chart presentation
- Question and answering
- Role play

Activities:

- I) Ask trainees to list the nutrition and health benefits sheep and goat milk and meat has. Continue writing their comments until no new ideas are offered. (10 minutes)
- II) Deliver a presentation on sheep and goat meat and milk health and nutritional benefits. (15 minutes)
- III) As a group, identify benefits that were given in the presentation that were not mentioned by group members. Why weren't these known about/mentioned? Confirm that participants understand the benefit. (10 minutes)
- IV) Divide trainees into 3 new groups and ask them to play the following role-play. They will need to pretend they are family members having a family discussion about the topic assigned to their group. (15 minutes):

- ✦ **Group 1:** Role-play - Pregnant married woman with small children - *I visited the nearby health clinic last week and the health worker there told me that I am poor in body condition and this likely will affect the mental and physical health of my baby. I need to consume fruits, vegetables, and animal-sourced foods like meat and milk.*

We have only 1 sheep and 1 goat. We commonly sell the kids and lambs from these animals to buy clothes or other things for the house. My husband sells the animals. Normally, he does not buy what is needed in the house. What he normally buys is not my children's and myself choice. Instead of slaughtering or

selling a lamb/kid to buy food we need, such as vegetables and fruits, he buys clothing or electronics. I feel we should try to save our money or sell several animals to buy dairy cow so that my daughter and myself can have milk.

- ✦ **Group 2:** Role-play - 15 year-old school child – *Today at school we had a meeting of the Nutrition Club, of which I am a member. The Community Health Worker came to speak to us and we discussed child nutrition. I learned that children under 5 are critically in need of milk and meat because it is important for the body's development, including their brain, bones, and muscles. It made me think of my 2-year old sister. My mother and father do not give her milk or meat. She is shorter than other kids her age and always sick. I do not understand why we don't give her goat milk or the meat from one of the animals we have slaughtered. Now I am very worried about her.*
 - ✦ **Group 3:** Role-play - Man who is the head of his household - *This has been a good and productive year. I have collected 25 quintals of grain from my gardens and 2 of my goats give birth to twins. Of my flock, 3 lambs are at selling weight. I have decided to take 2 lambs to the market this week to sell. From the money I receive, I will buy clothes and pay my debts.*
- V) After the role-play activity, ask trainees if they have ever had these same experiences. What did they do? How do they decide who eats what in the house? How do they decide whether to slaughter an animal for home consumption? Who decides what to buy if/when the family sells an animal or their harvest? (15 minutes)
- VI) Give a flip chart presentation on prioritizing family member's needs, especially in the internal distribution of animal sourced foods. (30 minutes)

SESSION 10: GENDER IN SHEEP & GOAT PRODUCTION

Learning objectives:

- I) By the end of this session participants will be able to discuss the different roles men, women, and children play in goat and sheep production and marketing.

Duration:

- 60 minutes

Training materials:

- Marker and flip chart
- ENGINE Livestock Producers Sheep and Goat Production Handbook Chapter(s)

Training Methods and Techniques:

- Group Exercise
- Question and answer
- Lecturing

Activities:

- I) Give a presentation on gender, gender analysis, women's role in livestock management. During the presentation, ask key questions to learn women's role in sheep and goat production (25 minutes)
- II) Initiate question and answer session among trainees on women's role in sheep and goat production (15 minutes)
- III) Initiate question and answer session on household decision making practices; particularly around management of livestock (goats/sheep) and income.
- IV) Summarize gender discussions highlighting methods for increasing women's role in livestock and income-related decisions for the household. (20 minutes)