

Feed the Future Innovation Lab for Livestock Systems

Training Manual for Researchers:

Integrating Gender and Nutrition into the Project Cycle of Livestock Research











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Sustainably intensifying smallholder livestock systems to improve human nutrition, health, and incomes

Disclaimer

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Introduction

This training manual was created by Dr. Kathleen Colverson, lead scientist of the Gender in Livestock Systems cross-cutting theme for the Feed the Future Innovation Lab for Livestock Systems, in order to promote the integration of gender and nutrition into livestock research projects. This manual is based on a three-part webinar series developed by Drs. Kathleen Colverson and Sarah McKune (available at http://livestocklab.ifas.ufl.edu/events/webinars-on-gender--nutrition). Dr. Colverson added to and adapted the webinar materials into a two-day training, which she gave to livestock stakeholders in Ethiopia and Rwanda in September 2018. The guide was developed to help other stakeholders and organizations improve the integration of gender and nutrition into their work with livestock research. This guide differs from other gender sensitization trainings by focusing on the stages of the project lifecycle, and what can be done to integrate gender and nutrition at each stage, even if gender and nutrition were not integrated in the previous stages.

This training manual is intended for international researchers, development practitioners and gender specialists in the livestock sector. Participants of this training should achieve five learning objectives, which are:

- 1) Identify the components of a project planning cycle;
- 2) Discuss the importance of integrating gender and nutrition into livestock research;
- 3) Explore and apply tools and approaches to integrating gender and nutrition throughout the project planning cycle;
 - a) Project design
 - b) Data collection
 - c) Data analysis
 - d) Framing and reporting
- 4) Discuss livestock projects and their success or lack of success in integrating gender and nutrition into project planning;
- 5) Demonstrate ways of integrating gender and nutrition into project examples using workshop tools and information.

This training manual provides several different types of activities that comprise the two-day training, including content overviews, activities and case studies. The guides for the content of the training (PowerPoint, activities and case study activities) are ordered chronologically according to the proposed training schedule (see page 6).

The PowerPoint materials (see Annex 4) are divided into four sections. The *first section* provides an overview of the stages of the project cycle, reviews basic gender and nutrition concepts for participants who may not already be familiar, and describes the reasoning behind integrating gender and nutrition into livestock research projects. The *second section* reviews the first stage of the project cycle, project design, and discusses strategies for integrating gender and nutrition into a project at that stage. The *third section* reviews the second stage of the project cycle, data collection and analysis, and presents tools that can be used to collect gender and nutrition data within a project. The *fourth section* reviews the final stage of the project cycle, framing and reporting, which covers the presentation or "framing" of the project findings, and discusses how to report on projects that may not have integrated gender or nutrition into the previous project stages.

Activities to practice what is being presented are also provided throughout the workshop to increase the engagement of participants in the training. In addition, this training manual provides an

overview of three case study activities, which are intended to help participants apply training concepts to real life scenarios. The background information for the case study is provided in Annex 3, however as with the participatory activities, feel free to modify the information in the case study to fit the needs of your project or context.

Other helpful materials provided in this training manual include an annotated facilitator's guide for the training in Annex 1, which can be used by trainers as a reference during the training. Finally, it is essential to evaluate the outcomes of trainings, as it can help trainers learn how to improve future training for other project partners or beneficiaries. In Annex 2 there is a workshop evaluation form that was used by Dr. Colverson, which can be used as an example to create your own workshop evaluation form.

The materials needed to conduct this training course are:

- Flip chart paper
- PowerPoint slides and projector
- Markers
- Pre- and post-workshop evaluations (one per participant)
- Attendance sheets
- Case study handouts (one per participant)
- Index cards
- Tape
- Ball or small object to toss (optional)

Proposed Training Schedule

Day 1	Session #	Topic
8:30 – 9:00	1	Activity #1: Welcome Icebreaker
9:00 – 9:30	2	Content Overview #1: The Project Cycle – What is it? Why integrate gender & nutrition?
9:30 – 10:30	3	Content Overview #2: Project Design – What to consider when developing a research question?
10:30 - 10:45		BREAK
10:45 – 12:00	4	Case Study #1: Project Design Application
12:00 – 1:00		LUNCH
1:00 – 2:00	5	Content Overview #3: Data Collection and Analysis – Methods and approaches to collecting gender and nutrition data
2:00 – 2:30	6	Activity #2: 24 Hour Clock
2:30 – 2:45		BREAK
2:45 – 4:00	6	Activity #3: The Agricultural Value Chain – Collecting participatory gender and nutrition data
4:00 – 4:30	7	Activity #4: Wrap-Up – Day One
Day 2	Session #	Topic
8:30 – 9:00	8	Activity #5: Welcome Back! Energizer and Summary of Day One
9:00 – 10:30	9	Case Study #2: Data Collection and Analysis Application
10:30 - 10:45		BREAK
10:45 – 12:00	10	Content Overview #4: Framing and Reporting your Project Results – What is it? What factors affect final reporting? What if gender and nutrition are not present?
12:00 - 1:00		LUNCH
1:00 – 2:30	11	Case Study #3: Framing and Reporting Application
2:30 – 2:45		BREAK
2:45 – 4:00	12	Activity #6: Participatory Approaches to Integrating Gender and Nutrition into Livestock Projects
4:00 – 4:30	13	Activity #7: Summary/Workshop Closing

Activity #1: Welcome Icebreaker

Duration	30 minutes
Materials	Flip chart paper, markers, copies of workshop evaluation (one for each participant), attendance sheet
Objectives	 Introduce agenda Allow workshop participants to get to know each other Complete pre-workshop survey
Instructions	 Prepare flip chart with agenda in advance Have participants sign the attendance sheet Hand out pre-workshop assessment and have the participants complete through Part A only Review agenda and workshop logistics with participants Conduct an icebreaker activity to allow participants to get to know each other. First, have participants count off by 4s, have 1s and 3s form pairs with each other and have 2s and 4s do the same. Next, have each pair of participants ask each other their names, organizational affiliation and how many children are in their family. After 5 minutes have each member of the pair describe their partner to the group.

This first session of the training is meant to familiarize the participants with the training agenda, allow participants an opportunity to get to know each other through an icebreaker activity, and allow participants to complete the pre-workshop survey. Feel free to substitute other icebreaker activities besides the one described above and in the facilitator's guide.

Overview #1: The Project Cycle – What is it? Why integrate gender and nutrition?

Duration	30 minutes
Materials	PowerPoint
Objectives	 Identify the components of a project planning cycle
Instructions	 Review slides 1 to 20 Answer participants' questions on the content. To facilitate discussion consider asking "Why is it important to integrate gender and nutrition into your project? Or "At what phase in the project cycle is it important to integrate gender and nutrition?"

This section provides an introduction to the project cycle stages, key gender and nutrition terminology and the rationale for integrating gender and nutrition into livestock projects. This material corresponds with slides 1- 20 in the PowerPoint presentation.

For the purposes of this training, the three stages of the project cycle are *project design, data collection* and analysis, and framing and reporting. The first stage of the project cycle, project design, involves reflecting on the situation, sometimes referred to as "situation analysis" or "needs assessment". Depending on the project's focus, this could include a secondary literature review or identifying tools that will assist with the next phase of the project cycle – data collection and analysis. Developing the instruments that will be used in data collection also occurs as this stage, which could be qualitative, quantitative, or a combination of both.

This stage is very important in understanding the context of where the project is located and the "system" in which the project will be collecting data. At the end of this phase there will be a clear research question and strategy for how to approach the research.

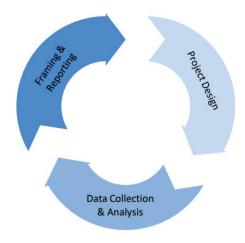


Figure 1. Stages of the Project Cycle

The second stage in a project involves *data collection and analysis* using the instruments that were selected or designed in the previous phase. This stage could also involve the training of local enumerators, and looks at who, where and when data is collected from. This phase should align with the project's indicators, which will ultimately determine the project's impact. The final phase of the project cycle involves the *interpretation of data results* and the *writing of the final report* or publication. This is the opportunity to reflect on the focus of the research goals and provide relevant results to the public and the funder. It relies on data that was collected in the previous phase, which could be potentially "framed" in a variety of ways depending on the project's research question. If the research question did not specifically identify gender or nutrition as concerns of the project, there is still an opportunity to look at the results from those perspectives, and provide recommendations to future researchers that could have gender or nutrition implications.

This session also covers basic gender and nutrition concepts, so that workshop participants with limited experience in these areas will understand the material more thoroughly. One concept that is important to review with participants is the distinction between sex and gender. Workshop participants with limited experience with gender may believe that the terms can be used interchangeably, but actually, they mean very different things. Sex is a biological concept and refers to the fixed and mostly unchangeable differences between males and females. Gender refers to the socially constructed, changeable and culturally specific roles for men and women. With these terms clarified, the facilitator can review with participants the ways that gender can potentially affect livestock research. For example, gender roles are dynamic and can change over time, and they may also differ by particular local contexts. Gender roles can also be shaped by ideological, religious, cultural, ethnic and economic factors. Finally, it is important to note that gender roles can be a key determinant of the distribution of resources and responsibilities between men and women, which are often unequal and inequitable.

Research on gender and agriculture has found that women supply 43% of all agricultural labor in low and middle-income countries, and around 50% of the labor in sub-Saharan Africa (FAO 2011; Palacios-Lopez et al. 2017). However, women farmers have also been found to face a number of constraints in accessing agricultural inputs, services and marketing, including: 1) limited control over assets and resources (including labor), 2) lower levels of education, 3) greater domestic care responsibilities, 4) limited social ties facilitating wage employment, 5) less access to and ownership of land and credit, and 6) less access to agricultural extension services (World Bank 2009).

In sub-Saharan Africa, male migration, civil conflicts and wars, unpartnered adolescent fertility, and family disruption are creating increasing numbers of female-headed households (FHHs) (Milazzo and van de Walle 2015). FHHs have less access to land, livestock, credit, education, health care and extension services (Quisumbing et al. 2001). In Zimbabwe, FHHs have 30-50% smaller landholdings than male-headed households (Skweyiya 2016) in eastern and southern Africa, 25-60% of rural households in the region are headed by women. FHHs' food security increases with land quality, farm size, and their social capital network such as the number of traders that a farmer knows or through their membership in farmer groups (Horrell and Krishnan 2008).

In places where men are leaving rural areas in search of work, women remain behind with their families leading to a "feminization of agriculture". In Bangladesh, when men migrate, women take over their duties, thus increasing their workload. Some women resort to hiring tenants or laborers from outside the household to take over farm duties when their husbands migrate (Rahman 2010; Debnath and Selim 2009). Another example is in Rwanda, where men traditionally milk cows, but

women are now doing so because of a shortage of male labor after the genocide (FtF 2015). Rural people in most developing countries depend on agriculture for the majority of their incomes. However, nearly 75% of farms are less than one hectare in low and middle-income countries, which is too small to sustain a family. In addition, the ultra-poor spend between 65-80% of total household expenditure on food, which disproportionately affects FHHs and widows.

In regard to nutrition, the global nutrition indicators indicate that 1.9 billion adults are overweight or obese, while 462 million were underweight (WHO 2018). In 2016, 155 million children under 5 are too short for their age (stunted) and 52 million are underweight for their height (WHO 2018) (See Table 1 for definitions of nutrition terms used in research).

Table 1. Nutrition Terms

Wasting (Height for weight z-score)	Recent and severe weight loss due to not eating enough food or an infectious disease (ex. diarrhea). Moderate or severe wasting in children has an increased risk of death.
Stunting (Height for age z-score)	• Due to chronic or recurrent undernutrition, often in conjunction with other issues such as poor socioeconomic conditions, inadequate maternal health and nutrition, frequent illness, and/or inadequate infant and young child feeding and care in early years. Affects physical and cognitive development.
Underweight (Weight for age z-score)	 Also associated with increased risk of mortality. A child who is underweight can be stunted, wasted, or both.
Micronutrient- related malnutrition	Micronutrient deficiencies- lack of important vitamins and minerals.Micronutrient excess.
Micronutrient deficiencies	■ The most important micronutrients in terms of global public health are iodine, vitamin A, and iron.
Overweight and Obesity	 An imbalance between too much energy consumed and too little energy expended. Foods that are high in sugars and fats may not contain the essential micronutrients. Global trends show undernutrition is decreasing but overweight and obese trends are increasing. Highlights that diet quality (not necessarily quantity) is important.

Worldwide 794 million adults are estimated to be calorie deficient and 1 out of 12 adults has type 2 diabetes (IFPRI 2015). In 2016, almost 520 million people in Asia did not have access to sufficient food energy, more than 243 million in Africa, and more than 42 million in Latin America and the Caribbean (FAO et al. 2017). Africa has the highest levels of severe food insecurity, reaching 27.4

percent of the population, which is nearly four times that of any other region (FAO et al. 2017). Almost one-third of women of reproductive age worldwide suffer from anemia, which also puts the nutrition and health of many children at risk (WHO 2015). Stunting affects almost one in four children under the age of five years, increasing their risk of impaired cognitive ability, weakened performance at school and work, and dying from infections (FAO 2017). Poor maternal and infant nutrition and health result in low birth weight and stunting as well as impaired cognitive development and lower school attainment (de Onis and Branca 2016). Stunted girls grow up to become stunted mothers; maternal stunting is one of the strongest predictors of giving birth to a low-birth-weight infant (FAO et al. 2017). Constraints on women's time are a major cause of their lower earnings and productivity. Women occupy "triple roles" in their daily lives, including productive (earning income), reproductive (childcare and domestic duties), and community service (participating in groups, school functions, etc.) (Strauss and Thomas 1998).

Finally, this session introduces the pathways in which gender and nutrition can affect livestock project outcomes. There are "gendered roles" in livestock production and value chains, which affect a woman's ability to access and control the resources needed to improve family nutrition. There are also "gendered roles" in household nutrition, with the woman being almost exclusively responsible for processing, cooking and serving food for the family (FAO et al. 2017). These roles affect each person's ability to participate in outside activities, including training. It is important to understand these roles to target the correct audience in livestock research. For example, men are often responsible for building cattle sheds and slaughtering animals, whereas women are frequently involved in processing (Kristjanson et al. 2010).

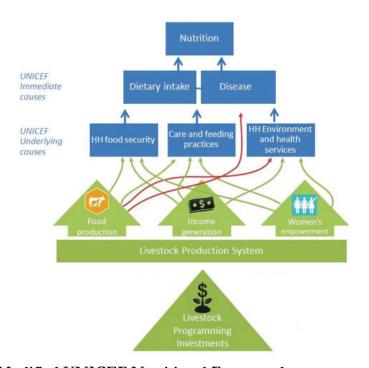


Figure 2. Modified UNICEF Nutritional Framework

To visualize these pathways, a modified version of the UNICEF Nutritional Framework, which illustrates the pathways to improved nutrition through livestock projects is presented in Figure 2 (UNICEF 1990). It is important to note that women's empowerment is its own pathway, but that

gender cuts across all other aspects to influence roles and resources for food production and income generation, as well as women's ability to influence the underlying and immediate causes of malnutrition within the household.

Overview #2: Project Design – What to consider when developing a research question

Duration	1 hour
Materials	PowerPoint
Objectives	 Discuss the importance of integrating gender and nutrition into livestock research
Instructions	 Review slides 21 to 27 Answer participants' questions on the content

This section discusses the first project cycle stage, *project design*, and four key strategies for integrating gender and nutrition at this phase. This material corresponds with slides 21 to 27 in the PowerPoint presentation and focuses on development of a research question from a gender and/or nutrition perspective.

When developing a research question the following aspects should be considered:

- Who benefits from this project?
- How do they benefit?
- Are benefits shared equally among all family members?
- How will this project affect the workload of all family members?
- What would we like to see as the outcome of this project as it relates to gender and nutrition equity within the household or the community?

For further integration from a gender perspective these questions should be asked *to* and *about* men, women, girls and boys in the project. It is also important to consider the intersectional socioeconomic factors (i.e. age, ethnicity, economic status etc.). A gender analysis can be used to determine within a livestock value chain:

- Who does what and when?
 - Who has access and control of the resources needed for production and marketing?
 - What constraints do women farmers face in realizing a fair share of income or benefits from the products produced?
 - Who in the family consumes the product if it is not sold?

In addition, a nutrition analysis can be used to determine:

• Who eats what and when?

- Who has access and control of food resources?
- What validated tools and indices exist to better understand nutrition dynamics within a household?
- What research team composition is needed? (i.e. males and females)

Additional considerations for project design include:

- 1) What research has already been conducted in the area of inquiry regarding women's empowerment and the nutritional status of children under 5?
- 2) Can existing data be leveraged to save money and resources?
- 3) What gaps exist within the literature on gender and nutrition to which your research could contribute?
- 4) The composition of the research team (i.e. number of males and females, enumerators needed, or interdisciplinary)?
- 5) Literacy levels in the research area since male and female respondents may not have the same literacy level?
- 6) Interview protocol (i.e. do men and women need to be interviewed separately using male and female interviewers?)

Table 2 summarizes four possible strategies for integrating gender and nutrition into the project design phase of a livestock research project.

Table 2. Summary of Strategies for the Project Design Phase

Integrating Gender into Project Design	Identify gender rolesGender balance of research team
Integrating Nutrition into Project Design	 Identify who makes decisions about food consumed at home Understand and identify appropriate outcome variables
Utilizing Existing Research	 Look for existing gender analyses on livestock production in research area Look for existing nutrition information (i.e. stunting rate, typical diet, consumption vs. sale etc.) in research area
Baseline Data Collection	 Plan for baseline data collection in budget and work plan to fill in gaps identified in existing research Think about research team composition

Case Study Exercise #1: Project Design

Duration	1 hour and 15 minutes
Materials	PowerPoint, flip chart paper, markers, case study handouts
Objectives	 Explore and apply tools and approaches to integrating gender and nutrition in project design
Instructions	 Review the directions for this activity on slide 28 Have participants break into the same small groups (4 - 5 people per group) Provide blank flip chart paper and markers to each group to record responses After each small group has finished the activity have the groups present their results to each other

The purpose of this activity is to provide participants with a chance to apply the information that they have learned so far. The material used for the case study is located in Annex 3 of this report and feel free to adapt the case study as needed to ensure that it is relevant to the training participants and context. There are multiple ways to break the training participants into small groups. One way is to divide the group based on their favorite animal (i.e. goats, cows, chickens and donkeys) and have each animal go to separate areas in the training venue.

Assignment - Project Design

The donor wants to see improvement in household nutrition of rural households in Tanzania by increasing milk production. For this group assignment, please answer the following questions:

- 1) Create a research question that addresses both the donor's needs and the current gender and nutrition situation in Tanzania.
- 2) What steps do you need to take to create the research question? Any special considerations?
- 3) How will you address both gender and nutrition issues in your research?
- 4) What other considerations do you need to have before developing a Data Collection strategy?



Photo 1. Training participant discussing ways to integrate gender and nutrition into project design

Overview #3: Data Collection and Analysis – Methods and approaches to collecting gender and nutrition data

Duration	1 hour
Materials	PowerPoint
Objectives	 Explore and apply tools and approaches to integrating gender and nutrition in data collection Explore and apply tools and approaches to integrating gender and nutrition in data analysis
Instructions	 Review PowerPoint slides 29 – 64 Answer participants' questions

This section discusses the second project cycle stage, *data collection and analysis*, and presents several tools that can be used in livestock research projects to collect gender and nutrition data. This material corresponds with slides 29 - 64 in the PowerPoint presentation.

The second phase of the project cycle is the data collection and analysis phase. *Data collection* refers to the systematic process of collecting information to answer a research question, while *data analysis* refers to using data to test hypotheses or evaluate outcomes based on the research questions. There are two main types of data, *quantitative and qualitative*. Quantitative data can be collected through surveys, lab tests, and anthropometric measurements. Quantitative data can be defined and measured, assumes a fixed reality and can be used for statistical analysis. Qualitative data can be collected through interviews, ethnography, participant observation and focus group discussions. Qualitative data is descriptive, characterizes social phenomenon, assumes fluid dynamics and can be analyzed thematically. In *mixed methods* approaches, both qualitative and quantitative data are collected to examine a research question. For example, using the research question "Is milk consumed in the home?", quantitative data could be used to examine the number of times per week milk is consumed, or the amount of milk consumed in liters; while qualitative data can be used to examine who makes decisions about milk consumption in the home, as well as the seasonal or social factors that influence milk consumption.

Sex disaggregated data is data that is categorized separately for males and females in both collection and analysis. It is important to remember that sex-disaggregated data is not the same as comparisons between male and female-headed households. The collection of sex-disaggregated data may require intra-household questionnaires that survey men and women separately. It is also important to consider intersectionality when integrating gender and nutrition into livestock research projects. Intersectionality refers to categories such as age, race, ethnicity, class etc., which intersect and overlap with gender to create further systemic disadvantages or advantages within society.

Some tools that can be used to collect gender data include a seasonal calendar, a 24-hour clock, an access and control profile, a decision-making profile or a gender analysis matrix. Another tool is the Women's Empowerment in Agriculture Index (WEAI), which was developed in 2012 (Alkire et al. 2013). The WEAI is comprised of two sub-indices related to women's empowerment and gender parity. The women's empowerment component measures 5 domains of women's empowerment

through survey questions, which are decisions about agricultural production, access to and decision-making power over productive resources, control over use of income, leadership in the community, and time use. Some of the pros of the WEAI are that it is standardized, and it provides consistent data, which can be compared across countries. Some of the cons of the WEAI are that it is relatively resource intensive and is agriculture-specific. To address some of the drawbacks of the original WEAI, new versions of the WEAI have been developed such as the abbreviated WEAI, the project WEAI, and the WEAI for value chains (under development). Some of the tools that can be used to collect nutritional data include anthropometric measurements, household food insecurity scale, minimum dietary diversity questionnaires, and 24-hour dietary recall. With these tools, nutrition outcomes such as stunting, food security, dietary diversity and ASF consumption can be measured. Please see the resources in Annex 4 for more details about these gender and nutrition tools.

One way to think about the extent of gender and nutrition integration within a project is to use the gender and nutrition continuum, adapted from the gender transformation continuum (Hillenbrand et al. 2015). At one end, projects can be gender or nutrition blind if they do not consider or integrate gender and nutrition into the project design, data collection or framing and reporting. At the other end, projects that integrate and work to transform gender or nutrition dynamics can be considered gender or nutrition transformative. In the middle projects may be gender aware or nutrition sensitive/specific if they integrate to a limited extent gender and nutrition. Table 3 summarizes some of the key issues to consider during the Data Collection and Analysis Phase.

Table 3. Summary of Data Collection and Analysis Phase

Consider which types of gender and nutrition data to collect and analyze	 Consider quantitative, qualitative or mixed method approaches Collect sex-disaggregated data and if appropriate consider how gender interacts with other social variables such as age, ethnicity/caste, religion etc.
Identify, adopt and adapt tools as needed	 Consider tools such as the WEAI for gender or using 24-hour recall to measure dietary diversity and ASF consumption for nutrition
Consider questions that address nutrition and gender together	 If women earn more income from dairy production increases, do they determine what happens with the income? Does increased dairy production translate into increased consumption of ASF, increased income or dietary diversity?

Activity #2: 24-Hour Clock

Duration	30 minutes
Materials	PowerPoint, flip chart paper, markers
Objectives	 Explore and apply tools and approaches to integrating gender and nutrition in data collection Explore and apply tools and approaches to integrating gender and nutrition in data analysis
Instructions	 Review the directions for this activity on slide 43 Break participants into men's groups and women's groups with 4 to 5 people per group Provide blank flip chart paper and markers to each group to record responses After each small group has finished the activity have the groups present their results to each other

The purpose of this activity is to give the training participants hands on experience using a gender analysis tool. The use of other gender analysis tools such as seasonal calendars or gender roles in the value chain or others can be substituted for the 24-hour clock if those are more relevant for the training participants. When groups report on their findings from the activity have them discuss the following questions:

- What do you see on each clock?
- How do men and women spend their time?
- Is there one group that has more activity or less activity?
- How might you use this tool in conducting livestock research?



Photo 2. Training participant discussing the 24-hour clock

Activity #3: The Agricultural Value Chain – Collecting participatory gender and nutrition data

Duration	1 hour and 15 minutes
Materials	PowerPoint, flip chart paper, markers
Objectives	Explore and apply tools and approaches to integrating gender and nutrition in data collection within a Livestock value chain
Instructions	 Review the instructions for the exercise on PowerPoint slide 65 Identify 3 to 4 relevant livestock value chains and tape index cards with those livestock species on the wall Review components of an agricultural value chain with participants Allow participants to form roughly equal size groups for each value chain. Have groups create the value chain for their livestock species using tape and index cards. At each node have the groups determine who does what and who controls the decision-making for each activity. Have the groups present their results to each other

The purpose of this activity is to give the training participants hands-on experience with identifying gender roles in a livestock value chain. Feel free to modify the activity in ways that make it most relevant for the training participants. When the groups present their results to each other, prompt each group to suggest ways of making the value chain more gender-equitable based on their findings.



Photo 3. Training participants working together on the livestock value chain activity

Activity #4: Wrap-Up for Day One "Popcorn"

Duration	30 minutes
Materials	Flip chart, markers
Objectives	Summarize learning from the first day of the workshop
Instructions	 Point randomly to workshop participants and ask them to name one thing that they will take way from the first day of the workshop and use in their research Record responses on flip chart

The purpose of this activity is to summarize the learnings from the first day of the training and to allow the training participants to share with each other the most important things they have learned. Feel free to substitute this activity with other interactive activities that you may know, which allow the participants to reflect on and share what they have learned.

Activity #5: Welcome Back! Energizer and summary of day one

Duration	30 minutes		
Materials	Small ball or object to toss		
Objectives	Review learning from the first day of the workshop		
Instructions	 Have participants sit or stand in a circle Using a small ball or other object to toss, have participants throw the ball to each other and whoever catches it will say one thing they learned on the first day of the workshop and how they might apply it to their work The facilitator will end the exercise once everyone has caught the ball and spoken 		

The purpose of this activity is to warm-up the participants for the second day of the training, and to recall what they learned during the first day of the training. Feel free to substitute this activity with other activities you may know that allow the participants to recap what they learned the previous day.

Case Study Exercise #2: Data Collection and Analysis Application

Duration	1 hour and 30 minutes			
Materials	PowerPoint, flip chart paper, markers			
Objectives	 Demonstrate ways of integrating gender and nutrition into project examples using workshop tools and information 			
	 Review the directions for this activity on slide 68 Have participants break into the same small groups as for the project design case study activity Provide blank flip chart paper and markers to each group to record responses After each small group has finished the activity have the groups present their results to each other 			

This activity is a follow up to the case study from the previous day. The purpose of this activity is to give participants the opportunity to apply what they learned about integrating gender and nutrition data collection and analysis methods to a case study. Feel free to adapt this activity in ways that make it more relevant to the training participants or context.

Assignment - Data Collection and Analysis

Using the same group as the previous assignment and the research question you created in the first exercise, create a Data Collection and Analysis plan using the case study materials in Annex 3 that uses both quantitative and qualitative methodologies and answers the following questions:

- Who will you collect data from?
- What type of information will you collect and where?
- What gender considerations do you need to make to collect the data?
- How will you analyze the data?

Overview #4: Framing and Reporting Project Results – What factors affect final reporting? What if gender and nutrition are not present?

Duration	1 hour and 15 minutes
Materials	PowerPoint
Objectives	 Discuss the importance of integrating gender and nutrition into livestock research
Instructions	 Review PowerPoint slides 69-83 Answer any participants' questions that may arise

This section discusses the final project cycle stage, *framing and reporting*, and discusses how projects can still report on gender and nutrition, even if it was not integrated into the previous project cycle stages. This material corresponds with slides 69-83 in the PowerPoint presentation.

Framing and reporting are *how* you interpret and present data analyzed from your research. The way you write up the research data will depend on who your audience is, as each audience (i.e. farmers, donors, extensionists, etc.) may be looking for something different in the final report. If the research question did not specifically identify gender or nutrition as concerns, there is still an opportunity to look at the results from those perspectives and provide recommendations for future research that could have gender or nutrition implications. During this phase of the project cycle, consider how gender and nutrition impacted project objectives and/or how project outcomes may affect nutrition and/or inform gender in the future.

The level of gender or nutrition integration (as visualized by the gender and nutrition integration continuum, Slide 71) may influence how results are framed and reported. For gender- and nutrition-blind projects, how would you interpret the results to provide future recommendations? In some cases, gender information may have been incorporated by the researcher, but not explicitly stated; or data was collected on men and women collectively but never disaggregated.

Many projects include capacity development as one of their cornerstones to provide information that is designed to improve a situation or impart knowledge. In this example, (Slide 73), an "animal feeds training" has been proposed for smallholder farmers to improve the productivity of livestock. However, when it was time to examine the adoption rates of the knowledge and practices disseminated, there was a lower than expected rate of adoption. Even though the project was gender blind, if the results are examined from a gender perspective, you realize that the project design was flawed due to a lack of gender analysis at the beginning. By conducting a gender analysis at the beginning of the project, you could determine who actually does the work to feed the animals – men or women. Without knowing this information, and the fact that women will frequently not attend trainings if they are at times when they are doing other work, or distant from their small children, you realize that you have targeted the wrong audience (men) for the training. By targeting women from the outset (after conducting a gender analysis during the project design phase), you will be providing information to the person who actually does the feeding, which will enhance the chances of a better adoption rate of the intended information at the end of the project. Even if you did not do a gender analysis, you could include in the final report that targeting the correct audience through an initial gender analysis would be recommended in the future for better project impact.

What if you have not considered nutrition in your project design? The goal of research in the Feed the Future Livestock Systems Innovation Lab is to ultimately "improve human nutrition of primarily women and children by increasing their consumption of animal source foodstuffs". Review your data again to determine any implications on this target population. Did household nutrition improve after your intervention or not? Are there ways you could "reframe" your conclusions to include a nutrition focus? What if your project is "Upstream" and doesn't have an explicit gender or nutrition focus (see slide 80)? For example, it focuses on agricultural inputs such as better feeds, genetics or extension information? Can human nutrition be included in this situation? As the project moves "downstream" to impact the end user, it may or may not include some nutritional outcome measures, i.e. reducing stunting or wasting or increasing dietary diversity. There are ways to use data that have been collected and interpret them to consider impact on nutrition.

Can you describe project examples that did not initially include nutrition as a focus, but could include recommendations that might enhance household nutrition? For example – if a project focuses on improving forages to increase dairy production, and there is positive impact from the project, this could mean increased milk available for the family, which could reduce malnutrition and protein deficiencies for children. If the reverse happens, and the project does not have the intended impact, then there would be a negative impact on the family's nutrition through reduced milk availability. Table 4 summarizes key ideas for Framing and Reporting Project Results

Table 4. Summary of Framing and Reporting Phase

•	
Audience	Who are you preparing the report for? Donor? Farmers? Research or Extension Specialists?
	 Consider education level, literacy, numeracy and avoid scientific jargon when writing report
Creating materials	 Limit text, use photos to illustrate, appealing layout, local languages as necessary
Capacity development	 Use Adult Learning Cycle of "Action and Reflection" to present material and then apply content with a practical exercise
Dissemination of research findings	 Consider media outlets based on audience – journals, leaflets, brochures, videos, radio spots, popular theater

The purpose of this next activity is to allow participants to think through how to apply their learning on integrating gender and nutrition into the last stage of the project cycle – framing and reporting. As before, feel free to modify this case study in ways that make it more relevant for the training participants.

Case Study Exercise #3: Framing and Reporting Application

Duration	1 hour and 30 minutes
Materials	PowerPoint, flip chart paper, markers
Objectives	 Demonstrate ways of integrating gender and nutrition into project examples using workshop tools and information
Instructions	 Review the directions for this activity on slide 85 Have participants break into the small groups based on birth month Provide blank flip chart paper and markers to each group to record responses After each small group has finished the activity have the groups present their results to each other

Assignment - Framing and Reporting on Your Project

Form new small groups and use the following example of research results to create bulleted statements that contain key project findings you would like to provide to the donor agency based on your project's data.

Research Results

After a review of secondary literature related to barriers to increase milk production in Tanzania, the research team decided to focus on improving forage to increase milk production of local crossbred dairy cows. A new variety of forage was introduced that had higher levels of protein but required higher levels of water than the traditional forage. Due to climate variability and limited rainfall, the introduced variety did not grow well since few rural households have irrigation and depend on rainfed agricultural practices. Because of this, the project had mixed results with a limited increase in overall milk production.

The research team wrote their final report, but the donor returned it and asked for gender and nutrition implications of the project results on vulnerable households. They also asked for the team's recommendations to increase impact on women and children's nutrition, particularly to increase animal source food in the diet.

Use the above information to answer the following questions:

- 1) How will you address the donor's concerns in your final report?
- 2) What specific recommendations could you give to the donor to improve the household nutrition of women and children based on the project's current focus?
- 3) What might you do differently in the future to integrate gender and nutrition into the project from the beginning?



Photo 4. Training participants working together on the case study

Activity #6: Participatory Approaches to Integrating Gender and Nutrition into Livestock Projects – Who eats what?

Duration	1 hour and 15 minutes				
Materials	PowerPoint, blank sheets of paper, markers				
Objectives	 Demonstrate ways of integrating gender and nutrition into project examples using workshop tools and information 				
Instructions	 Review the directions for this activity on slide 86 Have participants break into the small groups by counting off by 4's or 5's Provide 8 blank pieces of paper to each group After each small group has finished the activity have the groups present their results to each other After the groups have presented, review slide 86 and discuss why or why not the small group presentations align with the illustration 				

The purpose of this activity is to allow participants the opportunity to engage in a participatory activity that incorporates both gender and nutrition.

Activity #7: Summary/Workshop Closing

Duration	30 minutes
Materials	Post-workshop evaluation, jump drives
Objectives	 Complete the post-workshop evaluation Share helpful resource materials for integrating gender and nutrition
Instructions	 Distribute post-workshop evaluations and collect completed evaluations Give jump drives pre-loaded with gender and nutrition resources to participants when they hand in their evaluations

Distribute final workshop assessments to participants. Have participants complete the entire assessment, including written questions. Provide jump drives to each participant when they have turned in their assessment. Prepare jump drives in advance with all workshop materials and additional references on gender and nutrition from webinar references.

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Annex 1 - Training Schedule with Facilitator Guide

Time	Topic					
	Session 1: Welcome/Introductions/Review of Agenda					
8:30 – 9:00	Action: Prepare Flip Chart with Agenda in advance. Hand out pre-assessment before starting workshop to all participants to complete and return. Have participants complete the introductory questions and Part A only. With participants, review agenda and workshop logistics (i.e. meals, breaks and restrooms). Conduct introductions by counting off by 4's. 1's and 3's interview each other, 2's and 4's interview each other for names, organizational affiliation and what number child they are in their family. Each interviewer presents information on their interviewee to the plenary.					
9:00 – 9:30	Session 2: The Project Cycle – What is it? Why integrate gender and nutrition? Action: Review PowerPoint slides 1-20. Discuss.					
9:30 – 10:30	Session 3: Project Design – What to consider when developing a research question?					
	Action: Review PowerPoint slides 21-27. Discuss.					
10:30 – 10:45	BREAK					
	Session 4: Project Design Application: Case Study/Exercises/Group Presentations on Integrating Gender and Nutrition into a Livestock Project Action: Hand out case studies to participants. Review directions on PowerPoint slide					
10:45 – 12:00	28 with plenary. Break into small groups by favorite animal (4-5 people/group – i.e. goats, cows, chickens and donkeys in different corners of the room). Provide blank flip chart paper and markers to each small group to record responses from case study for final group presentation in plenary.					
12:00 - 1:00	LUNCH					
	Session 5: Data Collection and Analysis – Methods and approaches to collecting gender and nutrition data <u>Action:</u> Review PowerPoint slides 29-63. Discuss.					
1:00 – 2:30	Review exercise on 24 hour clock (slide 43). Break into men's group(s) and women's group(s) – 4-5 people per group. Provide blank flip chart paper and markers for exercise and final group presentation to plenary. After completing exercise, have each group report the following: What do you see on each clock? How do men and women spend their time? Is there one group that has more activity? Less activity? How might you use this tool in conducting livestock research?					
2:30 - 2:45	BREAK					
2:45 – 4:00	Session 6: The Agricultural Value Chain – Collecting participatory gender and nutrition data Action: Review exercise on PowerPoint slide 64 with participants. Identify 3-4					
2.43 — 4.00	livestock value chains that are appropriate to the country you are working in. Put names of the livestock species on a card and tape to different walls in the room. Prepare a flip chart in advance with the components of an agricultural value chain					

Time	Topic
	and review components with participants. Have participants self-select which livestock value chain they want to work on (ensure there are approximately equal numbers of participants (males and females)/value chain). Have small groups create a value chain for their livestock species using index cards and tape to the walls. After completing the value chain, have them determine who does what at each value chain node (man or woman) and who controls the decisions around activities in that node. When completed, have groups present their value chain to plenary and discuss gender roles in the chain, and suggestions for how to make it more equitable for both men and women.
4:00 – 4:30	Session 7: Wrap-Up – Day One Action: Use "Popcorn" exercise. Point to random individuals and ask for one thing they will take away from today and use in their research. Record responses on flip chart.
Day 2	
	Session 8: Welcome Back! Energizer and Summary of Day One
8:30 – 9:00	Action: Gather the participants into a circle either sitting or standing. Using a small ball, have participants throw the ball to each other and whoever catches it will say one thing they learned the first day of the workshop, and how they might apply it to their work. Once everyone has caught the ball and spoken, the facilitator will wrap up the exercise and start the workshop.
9:00 – 10:30	Session 9: Data Collection and Analysis Application: Case Study/Exercises/ Group Presentations on Integrating Gender and Nutrition into a Livestock Project Action: Review directions on PowerPoint slide 67 with the plenary. Use the same small groups from the exercise on Project Design and the research question that was created previously. Provide blank flip chart paper and markers to each small group to
	record responses from the case study for final group presentation in plenary.
10:30 - 10:45	BREAK
10:45 – 12:00	Session 10: Framing and Reporting your Project Results – What is it? What factors affect final reporting? What if gender and nutrition aren't present? Action: Review PowerPoint slides 68-83. Discuss.
12:00 - 1:00	LUNCH
1:00 - 2:30	Session 11: Framing and Reporting Application: Case Study/Exercises/ Group Presentations on Integrating Gender and Nutrition into a Livestock Project Action: Review directions on PowerPoint slide 84 with plenary. Break into small groups by groups of 4 based on birth month (Jan-Mar; Apr-Jun; July-Sept; Oct–Dec). Hand out the case study final exercise. Provide blank flip chart paper and markers to each small group to record responses from case study for final group presentation in plenary.
2:30 – 2:45	BREAK

Time	Topic				
	Session 12: Participatory Approaches to Integrating Gender and Nutrition into Livestock Projects – Who Eats What?				
2:45 – 4:00	Action: Review instructions on PowerPoint slide 85. Break into small groups (5-6 people) by counting off 1- 4. All 1's in one group, 2's in one group, etc. Rearrange groups if necessary to have approximately equal numbers of men and women in each group. Hand out 8 blank pieces of 8x11 paper, markers and one blank flip chart paper to each group to use for drawings and final group presentation. After small group presentations, review PowerPoint slide 86 on "A Balanced Diet" and discuss why or why not the small group presentations align with this illustration. How could their research address some of these nutritional gaps?				
	Session 13: Summary/Workshop Closing				
4:00 – 4:30	Action: Distribute final workshop assessments to participants. Have participants complete the entire assessment, including written questions. Provide jump drives to each participant when they have turned in their assessment. Prepare jump drives in advance with all workshop materials and additional references on gender and nutrition from Webinar references.				



Photo 5. Training participants in Ethiopia with Dr. Colverson (right)

Annex 2 – Example Workshop Evaluation

Your name_

Feed the Future Innovation Lab for Livestock Systems

Integrating Gender and Nutrition into the Project Planning Cycle Evaluation

Thank you for participating in this assessment for the Feed the Future Innovation Lab for Livestock Systems (LSIL). The purpose of this survey is for workshop participants to reflect on their knowledge and learning, and for feedback to the workshop organizers to use in a continuous learning and development process. Thank you for your time!

1. Please describe your involvement in the LSIL.						
☐ Subawardee ☐ LSIL Management Entit		☐ LSIL Trainee		☐ LSIL Stakeholder		
one of the following categories be	est describe	s your affilia	ition?			
er			☐ Other Public Sector			
☐ Government ☐ Private Sector		☐ Other (describe)				
*	•					ch of
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N/A
	d the Projec	t Cycle				
the project planning cycle						
I can describe the importance of integrating gender and nutrition into livestock research						
I can describe different tools that can be used to integrate gender and nutrition into the project cycle						
I understand the impact that not integrating gender and nutrition can have on project outcomes						
I can provide specific recommendations for including gender and nutrition in projects I work on				0		
	Dene of the following categories between I Non-governmental Organization The Private Sector The set he scale provided below to incoming statements. If any statements of the project planning cycle I can name the components of the project planning cycle I can describe the importance of integrating gender and nutrition into livestock research I can describe different tools that can be used to integrate gender and nutrition into the project cycle I understand the impact that not integrating gender and nutrition can have on project outcomes I can provide specific recommendations for including gender and nutrition in projects	Described and statements of the project planning cycle I can describe the importance of integrating gender and nutrition into livestock research I can describe different tools that can be used to integrate gender and nutrition can have on project outcomes I can provide specific recommendations for including gender and nutrition in projects of the project cycle I can provide specific recommendations for including gender and nutrition in projects of the project cycle I can provide specific recommendations for including gender and nutrition in projects	dee	dee	dee	dee

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N/A
B. Meeting Design and Logistics						
i. Presentations were audible, clear & informative						
ii. Any materials distributed were useful						
iii. Participation & interaction were encouraged						
iv. Adequate time was provided for discussion & feedback						
v. My questions were satisfactorily answered						
vi. Group work was well structured & useful						
vii. The venue and facilities were appropriate						

What was most useful about the workshop?

What could have been done differently to improve the workshop?

How will you use the information from the workshop?

Thank you very much for your feedback!

Annex 3 – Case Study Material

This is the Case Study Material for all three Case Study Exercises (Project Design, Data Collection and Analysis, and Framing and Reporting).

Increasing Dairy Production to Improve Household Nutrition in Tanzania

According to the Government of Tanzania (GoT), approximately half of all households are food insecure during some portion of the year. Female-headed households are more likely to be food insecure, and households headed by women are considered to be the most economically vulnerable. Additionally, more women than men depend on agriculture for their livelihood, and women are more likely than men to be impoverished. Women exercise little control over economic resources, even in cases in which women do most of the work at the production end, contributing to their vulnerable status. Female heads of household are often widows, tend to be less educated than their male counterparts, and are more often engaged in agricultural production and agricultural labor, while it is more common for men to work as unskilled laborers (non-agricultural), skilled laborers, in salaried work, or in their own business. Approximately 30% of all households in Tanzania are female-headed.

Poor nutrition is another important issue in Tanzania. The nutritional status of children under five years for wasted, stunted, and underweight children has decreased from 43 percent in 2012 to 37 percent. However, it is still unacceptably high. Women also have higher levels of anemia and lack many of the essential vitamins in their diet, notably Vitamin A and Folic Acid. Gender and nutrition issues often go hand-in-hand. Women in Tanzania generally have less access to land and credit, agricultural extension advice, and agricultural inputs (e.g. veterinary supplies), which reduces their overall agricultural productivity. Women (in male-headed households) also have less control over decision-making that involves the consumption, sale and marketing of agricultural products—including milk. Moreover, these same women are primarily responsible for providing nutrition to their households. It has been demonstrated that if women control the income generated from agricultural products, household nutrition improves. It is also known that in households with food scarcity (particularly Animal Source Food), women and female children receive the least and poorest food but have the highest nutrient needs, especially if they are pregnant or lactating.

There is a history of consuming dairy products in Tanzania, although the value chain is not highly developed, and milk production per cow is low. Most of the milk that is produced is either sold locally, or through milk cooperatives. The government has initiated programs with non-profit organizations (NGO's) to improve the quality of dairy cattle through artificial insemination, but these programs are in their infancy. Local veterinary and extension services are not easily accessible, particularly by women.

The Government has taken meaningful steps toward gender equality, such as developing the Ministry of Gender and Families, and it has fostered strategic affirmative actions to ensure female participation in the political and economic endeavors of the government. However, many problems still exist that have yet to be tackled regarding gender, including cultural gender norms, lack of access to extension and agricultural services, lack of access to financial support (through credit), and higher rates of illiteracy, especially for women.

Annex 4 – Gender and Nutrition Resources

Links to resources listed in the PowerPoint training slides are included in the chart below.

Resource Name	Link
Cultural Practice Gender Resources	www.culturalpractice.com/resources/by- expertise/gender-360
WEAI Resource Center	http://weai.ifpri.info
Three things you need to know about sex- disaggregated data (A4NH)	http://a4nh.cgiar.org/2014/05/05/three-things-you-need-to-know-about-sex-disaggregated-data
Data Needs for Gender Analysis in Agriculture (Doss, 2013)	http://cdm15738.contentdm.oclc.org/utils/getfile/collection/p15738coll2/id/127482/filename/127693.pdf
Gender, Agriculture and Assets Project (GAAP)	http://gaap.ifpri.info
Qualitative research on women's economic empowerment and social protection, a research guide (FAO 2015)	www.fao.org/3/a-i4420e.pdf
Women's Empowerment in Livestock Index (WELI)	https://cgspace.cgiar.org/bitstream/handle/1056 8/89300/1.3%20Galie_WELI.pdf?sequence=1&is Allowed=y
Household Food Insecurity Access Scale (HFIAS) for Measurement of Household Food Access; Indicator Guide	www.fao.org/fileadmin/user_upload/eufao- fsi4dm/doc-training/hfias.pdf
Guidelines for measuring household and individual dietary diversity	www.fao.org/3/a-i1983e.pdf
Women's Empowerment in Agriculture Index (WEAI) Resource Center	www.ifpri.org/topic/weai-resource-center
Integrating Gender and Nutrition in Agricultural Extension Services (INGENAES) Library	http://ingenaes.illinois.edu/library
Nutrition Innovation Lab, Tufts University	https://nutritioninnovationlab.org
Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING)	www.spring-nutrition.org/about-us

Annex 5- Gender and Nutrition PowerPoint Slides









Integrating Gender and Nutrition into the Project Life Cycle of **International Livestock Research Projects**

Train the Trainer Course for Livestock Systems Innovation Lab partners September 2018



FEEDFUTURE

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WORKSHOP OBJECTIVES

- Understand the components of a project planning cycle
- · Understand the importance of integrating gender and nutrition into livestock research
- · Explore tools and approaches to integrating gender and nutrition throughout the project planning cycle
- Discuss livestock projects and their success in integrating gender and nutrition
- Practice ways of integrating gender and nutrition into project examples using workshop tools and information









What is the Project Life Cycle?

Why Integrate Gender and Nutrition?

















































WHAT IS "GENDER"?

















"Sex"

Biological, fixed, mostly unchangeable differences between males and females

"Gender"

Socially constructed, changeable, culturally specific roles for women and men







GENDER AND AGRICUITURE

- Women supply 43 percent of all agricultural labor in low- and middle income countries; and at least 50% in sub-Saharan Africa
- But women farmers face a number of constraints in accessing agricultural inputs, services and markets, including:
- Limited control over assets and resources (including labor)
- Lower levels of education
- Greater domestic care responsibilities
- · Limited social ties facilitating wage employment
- · Less access to and ownership of land and credit
- · Less access to agricultural extension services



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HOW DOES GENDER AFFECT LIVESTOCK RESEARCH?

GENDER ROLES ARE:

- Dynamic and change over time
- Differ by particular local contexts
- Shaped by ideological, religious, cultural, ethnic and economic factors
- Key determinant of the distribution of resources and responsibilities between men and women; which are often unequal and inequitable



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INCREASING FEMALE HEADED HOUSEHOLDS

- In sub-Saharan Africa male migration, civil conflicts and wars. unpartnered adolescent fertility and family disruption create increasing numbers of female headed households.
- FHHs have less access to land, livestock, other assets, credit, education, health care and extension services. In Zimbabwe, female-headed households have 30-50% smaller landholdings than male-headed households. In eastern and southern Africa 25-60% of rural households in countries in the region were headed by women.
- · FHHs' food security increases with land quality, farm size, and their social capital network (the number of traders that farmers know within their vicinity, and their membership of farmers' groups).
- Sources: (Odame, Hafkin, Wesseler, & Boto, 2002; Quisumbing, 1995; World Bank, 2001; IFAD, 1999; Kassie, et.al. 2013)



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FEMINIZATION OF AGRICULTURE

Reasons:

- Migration Men are leaving rural areas in search of work. Women remain behind with families.
- In Bangladesh, when men migrate, women take over their duties, increasing their workload. Some women resort to hiring tenants or laborers from outside the household to take over farm duties when their husbands migrate (Rahman (2009) and Debnath and Selim (2009).
- · Wars and Genocide -
- In Rwanda, men traditionally milk cows, but women are now doing this because of a shortage of male labor after the genocide. (Feed the Future (FtF), 2015. "Gender Analysis for USAID/Rwanda").



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SOME NUTRITION TERMINOLOGY AND GLOBAL INDICATORS...









GENDER AND AGRICULTURE

- Rural people in most developing countries, especially sub-Saharan Africa, rely on agriculture for a major share of their incomes
- YET...
- Almost 75 percent of farms in low and middle-income countries are smaller than one hectare - too small to sustain a family
- The ultra-poor spend about 65–80 percent of total household expenditure on food, which disproportionately affects female headed households and widows
- · Source: Ahmed et al., 2007









GLOBAL NUTRITION INDICATORS

- · 2 billion people experience micronutrient malnutrition
- · 1.9 billion adults are overweight or obese
- · 161 million children under age 5 are too short for their age (stunted)
- 51 million don't weigh enough for their height (wasted), and 42 million are overweight
- · 794 million people are estimated to be calorie deficient; and
- · 1 in 12 adults worldwide have Type 2 Diabetes
- · Source: Global Nutrition Report, 2015, IFPRI









Wasting (Height for weight z-score)	Recent and severe weight loss due to not eating enough food or an infectious disease (ex. diarrhea). Moderate or severe wasting in children has an increased risk of death
Stunting (Height for age z-score)	 Due to chronic or recurrent undernutrition, often in conjunction with other issues such as poor socioeconomic conditions, inadequate maternal health and nutrition, frequent illness, and/or inadequate infant and young child feeding and care in early years. Affects physical and cognitive development.
Underweight (Weight for age z-score)	Also associated with increased risk of mortality A child who is underweight can be stunted, wasted, or both
Micronutrient-related mainutrition	Micronutrient deficiencies-lack of important vitamins and minerals Micronutrient excess
Micronutrient deficiencies	The most important micronutrients in terms of global public health are iodine, vitamin A, and iron
Overweight and Obesity	An imbalance between too much energy consumed and too little energy expended Foods that are high in sugars and fats may not contain the essential micronutrients Global trends show undernutrition is decreasing but overweight and obese trends are increasing Highlights that diet quality (not necessarily quantity) is important









THE POVERTY CYCLE FOR WOMEN

- Poor maternal and infant nutrition and health result in low birth weight and stunting as well as impaired cognitive development and lower school attainment
- · Stunted girls grow up to become stunted mothers; maternal stunting is one of the strongest predictors of giving birth to a low-birth-weight
- Constraints on women's time are a major cause of their lower earnings and productivity – triple roles – productive, reproductive, community

Sources: Alderman, 2010; Hoddinott et al., 2013; Strauss and Thomas, 1998;











GLOBAL NUTRITION INDICATORS

- In 2016 almost 520 million people in Asia did not have access to sufficient food energy, more than 243 million in Africa, and more than 42 million in Latin America and the Caribbean.
- · Africa has the highest levels of severe food insecurity, reaching 27.4 percent of the population - almost four times that of any other region.
- Almost one-third (33 percent) of women of reproductive age worldwide suffer from anemia, which also puts the nutrition and health of many children at risk.
- · Stunting affects almost one in four children under the age of five years, increasing their risk of impaired cognitive ability, weakened performance at school and work, and dying from infections.

Source: FAO, 2017. "Food Security and Nutrition Around the World"



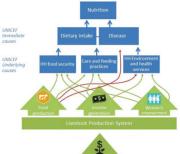
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Modified UNICEF Nutritional Framework















PROJECT DESIGN

What to consider when developing a research question



- · Plan for a gender analysis to determine:
- · Who does what and when?
- · Who has access and control of the resources needed for production and marketing?
- · What constraints do women farmers face in realizing a fair share of income or benefits from the products produced?
- Who in the family consumes the product if it is not sold?

















CONSIDERATIONS FOR DEVELOPING A RESEARCH QUESTION

- · Who benefits from this project?
- How do they benefit?
- Are benefits shared equally among all family members?
- How will this project affect the workload of all family members?
- · What would we like to see as the outcome of this project as it relates to gender and nutrition equity within the household or the community?









FROM A NUTRITION PERSPECTIVE

- Plan for a nutrition analysis to determine:
- · Who eats what and when?
- · Who has access and control of food resources?
- What validated tools and indices exist to better understand nutrition dynamics within a household?
- What research team composition is needed?









PROJECT DESIGN - ADDITIONAL CONSIDERATIONS

- What research has already been conducted in the area of inquiry?
 - Women's empowerment
 - Nutritional status of children under 5
- Can you leverage existing data as baseline to save money and resources but answer questions about change?
- What gaps exist within existing literature on gender and nutrition to which your research could contribute?

















Summary - Project Design Phase



- · Identify gender roles in milk production
- · Gender balance of research team
- Integrating Nutrition into Project Design
- Identify who makes decisions about milk consumed at home
- · Understanding and identifying appropriate outcome variables

Utilizing Existing Research

- Look for existing gender analysis on dairy production in the research area · Look for existing nutrition information (i.e. stunting rate, typical diet,
- Baseline Data
- · Plan for baseline data collection in budget and work plan to fill in gaps identified in the existing research
- Think about research team composition









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PROJECT DESIGN - ADDITIONAL CONSIDERATIONS

- Composition of Research Team? Number of males and females? Enumerators needed? Interdisciplinary? Social as well as Biophysical scientists?
- · Languages?
- · Literacy and Education Levels? Male and female respondents are often different
- Interview protocol? Women and men often need to be interviewed separately using male and female interviewers











PROJECT DESIGN APPLICATION

Assignment:

- 1) Break into small groups
- 2) Review and discuss the Case Study
- 3) Answer the questions on the Case Study and write responses on the flip chart provided
- 4) Select a group spokesperson
- 5) Present your group's responses to the larger group









DATA COLLECTION AND ANALYSIS

Methods and Approaches to **Collecting Gender and Nutrition** Data









What Do We Mean by Data Collection and Analysis?

This phase of the research cycle is the second point for integration of gender and nutrition into the project cycle

- o Data collection: systematic process of collecting information to answer research question
- O Data analysis: using data to test hypotheses or evaluate outcomes based on the research questions





















Types of Data Collection and Analysis

- Quantitative:
 - Methods: surveys, lab tests, anthropometric measurements
 - o Characteristics: defines and measures, assumes a fixed reality, uses statistics for analysis
- Qualitative:
 - o Methods: interviews, ethnography, participant observation, focus group discussions
 - Characteristics: descriptive, characterizes social phenomenon, assumes fluid dynamics, data analyzed thematically









SFEEDIFUTURE

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Types of Data Collection and Analysis

• Mixed Methods – quantitative and qualitative methods are used

Example: Is milk consumed in the home?

- · Quantitative answers: number of times per week, amount of milk consumed in liters, etc.
- · Qualitative answers: who makes decisions, seasonality of milk consumption, etc.









ADDITIONAL CONSIDERATIONS IN DATA COLLECTION

- Employ mix of quantitative & qualitative approaches (e.g. surveys, semi-structured interviews, activity charts, focus groups, journaling, photo interpretation, maps)
- Ensure equal numbers of women and men in training and surveys
- Investigate gender or nutrition-specific issues in value chains
- Interview women household heads, including single, divorced, widows









SPECIFIC STEPS IN DATA COLLECTION

- 1) Do a gender and nutrition analysis of the target population
- 2) Collect and analyze sex-disaggregated data
- 3) Employ participatory methods qualitative and quantitative
- 4) Target gender issues and women in research and training to increase women's participation and benefits
- 5) Include men in research, discussions, and training around gender and nutrition issues
- 6) Find synergies at the intersections of technical and social goals and objectives









ADDITIONAL CONSIDERATIONS IN DATA COLLECTION

- · Attend to the time of day, duration of use and location of the data collection
- Give women more time for activities if needed
- · Identify and address women's priorities
- · Hold separate focus groups for women and men
- Actively invite women to meetings and trainings
- Network with women leaders and gender experts in NGOs











For example:

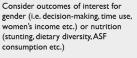
- · Quantitative data collection methods and analysis tools
- · Qualitative data collection and analysis tools
- · Ensure that a minimum of sex-disaggregated data is collected
- · If appropriate, intersectionality is also incorporated with relevant data for the context (i.e. age, caste/ethnicity etc.)













Identify, adopt and adapt tools as needed













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Sex-Disaggregated Data and Intersectionality

- · Sex-disaggregated data: data collected and analyzed separately on males and
- Key points to remember:
 - O Not the same as comparisons of male- and female-headed households
 - o Involves asking "who" questions, i.e. who in the household milks the cows?
 - o Necessary not only for understanding women's roles, but also the gender dynamics as a whole
 - o May require intra-household questionnaires (i.e. running the same survey twice with men and
- Intersectionality considers how other categorizations, including gender race/ethnicity, religion, class, age etc., intersect and overlap to create further systemic disadvantage or advantage within society







SPOTLIGHT ON GENDER AND **NUTRITION TOOLS**











FEEDIFUTURE

SELECTED GENDER TOOLS

- Seasonal Calendar
- 24 Hour Clock
- Access and Control Profile
- · Decision Making Profile
- Gender Analysis Matrix (GAM)





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24 HOUR CLOCK

EXERCISE:

Break into smaller groups of men only and women only.

Ask the women's group to create a clock for the average man, and ask the men's group to create a clock for the average woman.

Draw a picture of a clock and fill in what the man or woman does on an "average" day (and night) In a 24 hour period.

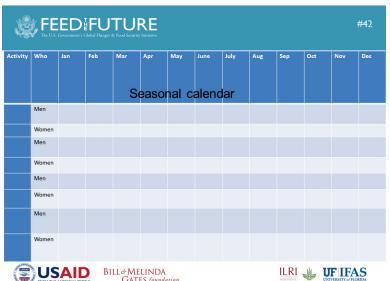
Discuss drawings in plenary.



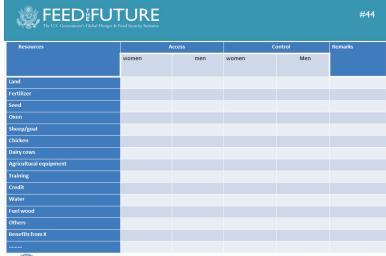




















DECISION MAKING TOOL

Expense	Men	Women	Joint (we decide together)	Comment
Children education				
Clothing				
Health care				
Daily food items				
Inputs for the land				



Women's Empowerment in Agriculture Index (WEAI)



- Launched in 2012, developed by IFPRI, Oxford Poverty and Human Development Initiative and USAID, first tool of its kind to measure women's empowerment in the agriculture sector
- Two sub-indices: women's empowerment and gender parity
- Measures 5 domains of empowerment through survey questions:
 - o Decisions about agricultural production
 - o Access to and decision-making power over productive resources
 - o Control over use of income
 - o Leadership in the community
 - o Time use









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GENDER ANALYSIS MATRIX

Intervention	Level of analysis	Labour	Resource	Time	Cultural change
	Women				
	Men				











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Women's Empowerment in Agriculture Index (WEAI)





- WEAI pros: standardized, consistent data, comparable across countries
- · WEAI cons: resource intensive, agriculture-specific
- · To address concerns and new findings other versions of WEAI have been developed: Abbreviated WEAI, Project WEAI (Pro-WEAI), WEAI for Value Chains (under development), examples of adaptations for livestock (see resources)
- · See resources page for links to more information about the WEAI

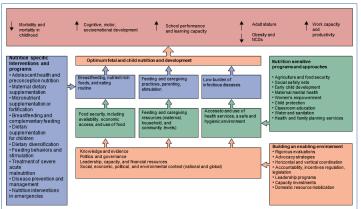














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Leveraging the Dietary Diversity Questionnaire

- · Household Dietary Diversity score of 0-12
- Women's Dietary Diversity score of 0-12
- · Household ASF consumption 0-4
- Other important groups?

Infant and young children (6-23 months)

























Nutrition Outcomes and Associated Tools

- Stunting, Wasting, Undernutrition
- Food Security
- · Dietary Diversity
- · ASF Consumption







- · Anthropometric Measurements
- · Household Food Insecurity Access
- Dietary Diversity Questionnaire
- 24-hour Dietary Recall
- · Minimum Dietary Diversity (MDD)

References:

http://www.fao.org/3/a-i1983e.pdf

Coates, Jennifer, Anne Swindale and Paula Bilinsky. 2007. Household Food Insecurity Access Scale (HFIAS) for Measurement of Household Food Access: Indicator Guide (v. 3). Washington, D.C.: FHI 360/FANTA.

INDDEX Project (2018), Data4Diets: Building Blocks for Diet-Related Food Security Analysis. Tufts University, Boston, MA https://inddex.nutrition.tufts.edu/data4diets.









MINIMUM DIETARY DIVERSITY (MDD)

The Minimum Dietary Diversity (MDD) is a score for children 6-23 months old designed by the World Health Organization (WHO) to assess diet diversity.

Data are gathered from the child's caregiver on what the child consumed over the previous 24 hours from each of seven food groups, and tallied to determine diet adequacy at the population level.

Food Groups include:

- 1) Grains, Roots and Tubers
- 2) Legumes and Nuts
- 3) Dairy Products
- 4) Flesh Foods
- 5) Eggs
- 6) Vitamin A rich fruits and vegetables
- 7) Other fruits and vegetables











RESEARCHING GENDER AND NUTRITION **TOGETHER**

How can you incorporate gender AND nutrition into a livestock research project?



Gender and Nutrition Integration Continuum

Gender Blind Gender Aware Gender Transformative Nutrition Blind Nutrition Sensitive/Specific Nutrition Transformative





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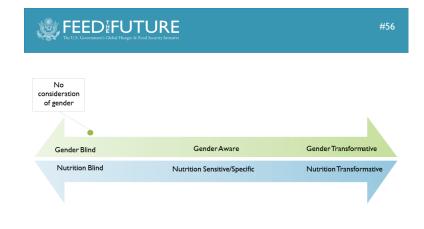








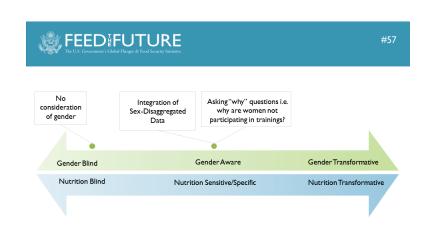




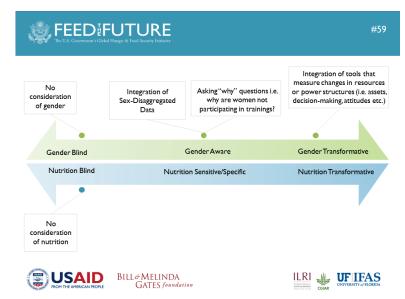


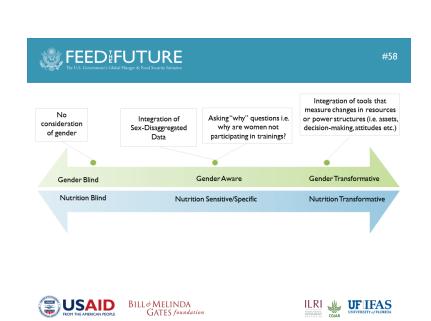


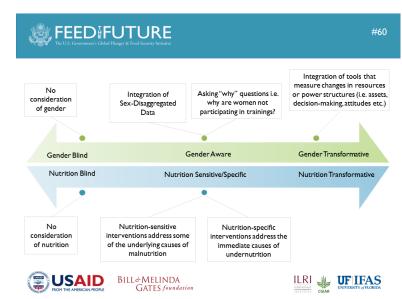




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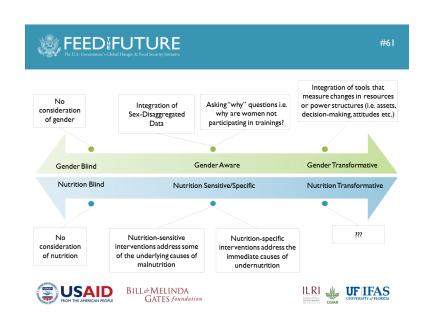


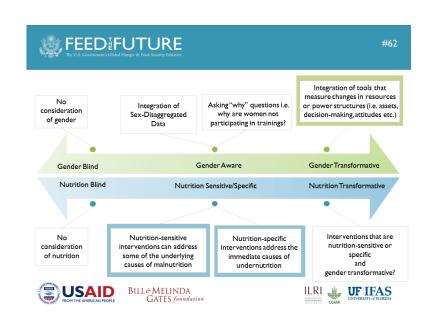


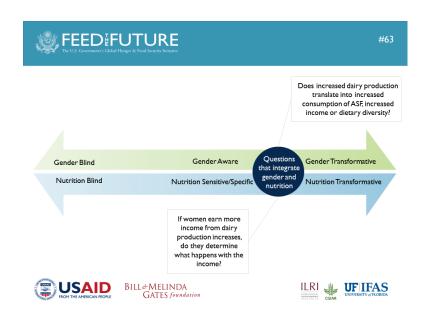


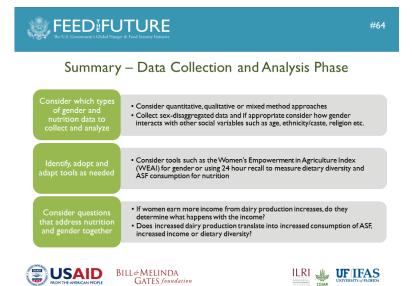
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COLLECTING GENDER DATA IN A LIVESTOCK VALUE **CHAIN**

- · Review the generic agricultural value chain steps
- · Break into smaller groups based on self-selection of a livestock value chain
- · As a group, create the livestock value chain using cards provided. Add extra cards if needed to explain the steps in that value chain. Tape the cards on the wall in the order that the group believes the chain occurs.
- · Once the value chain is completed, add the roles of men and women at each stage of the chain, using the symbols for men and women with brief descriptions of their exact roles. Include who has "control" or makes the decisions affecting the product at each stage of the value chain.
- · Present gendered chain to plenary









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WELCOME BACK!

ENERGIZER

DAY ONF - SUMMARY









WRAP UP - DAY ONE

POPCORN!



DATA COLLECTION AND ANALYSIS APPLICATION

Assignment:

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FRAMING AND REPORTING PROJECT **RESULTS**

What is it?

What factors affect final reporting?

What if gender and nutrition aren't present?











What do we mean by Framing and Reporting?

• Projects have various levels of engagement relevant to human nutrition and gender, as illustrated through the integration continuum.

Gender Blind	Gender Aware	Gender Transformative
Nutrition Blind	Nutrition Sensitive/Specific	Nutrition Transformative









What do we mean by Framing and Reporting?

For all project types consider:

How gender and nutrition impacted project objectives AND/OR

How outcomes may affect nutrition and/or inform gender



Gender and Nutrition Integration Continuum



















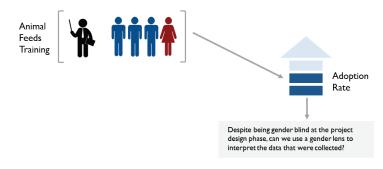
FEED FFUTURE
The U.S. Government's Global Hunger & Food Security Initiative

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Gender Blind Project Example















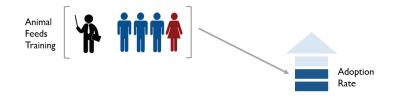






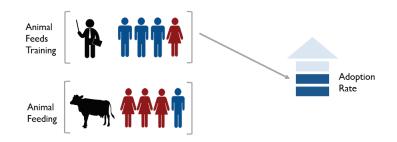
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Gender Blind Project Example





Gender Blind Project Example









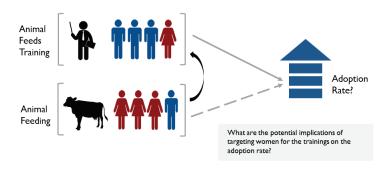








Gender Blind Project Example







Gender and Nutrition Integration Continuum



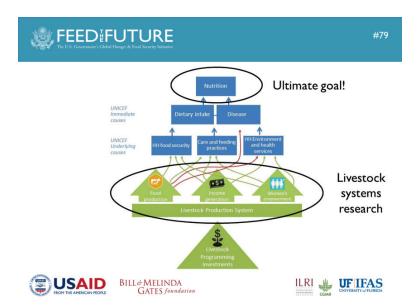


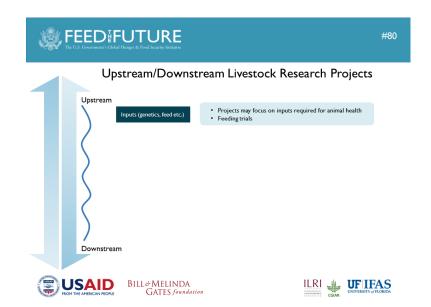
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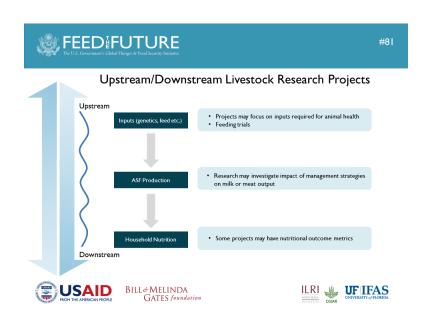


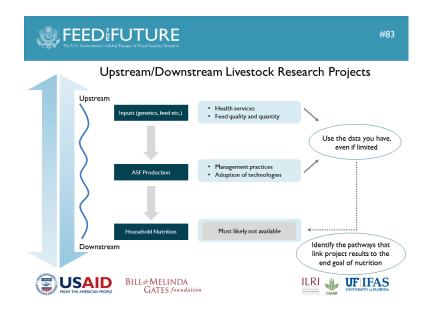
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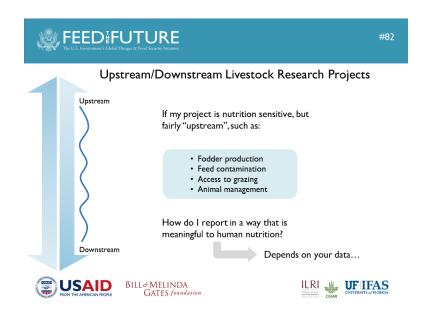














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FRAMING AND REPORTING APPLICATION

Assignment:

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PARTICIPATORY APPROACHES TO INTEGRATING **GENDER AND NUTRITION**

Assignment:

- 1) Break into small groups (4-5 people). Assign each person the "role" of a family member in a typical rural family, ie. father, mother, oldest child, etc.
- 2) As a group, discuss what each family member would normally eat for a lunch meal. Using an 8 x 11 piece of paper, have each family member draw what they would normally eat. Label each meal with the name of the family member.
- 3) Tape the 8x11 papers to a flip chart and post on the wall.
- 4) Have the plenary do a "gallery walk" after all the flip charts are posted to present and discuss results by each group.







A BALANCED DIET A Balanced Plate Fruit and vegetables Grains, cereals and potatoes Dairy products Meat, fish, nuts and eggs Fats and sugars ILRI UF IFAS UNIVERSITY OF FLORIDA BILL&MELINDA

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Resources

- Cultural Practice Gender Resources: http://www.culturalpractice.com/resources/by- expertise/gender-360/
- WEAI Resource Center: http://weai.ifpri.info/
- · Three things you need to know about sex-disaggregated data (A4NH): http://a4nh.cgiar.org/2014/05/05/three-things-you-need-to-know-about-sex-disaggregated-
- · Data Needs for Gender Analysis in Agriculture (Doss, 2013): http://cdm15738.contentdm.oclc.org/utils/getfile/collection/p15738coll2/id/127482/filename/ 127693.pdf
- Gender, Agriculture and Assets Project (GAAP): http://gaap.ifpri.info/
- · Qualitative research on women's economic empowerment and social protection, a research guide (FAO 2015): http://www.fao.org/3/a-i4420e.pdf
- · Women's Empowerment in Livestock Index (WELI): https://cgspace.cgiar.org/bitstream/handle/10568/89300/1.3%20Galie_WELI.pdf?sequence=1& isAllowed=y



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Resources Continued

- Household Food Insecurity Access Scale (HFIAS) for Measurement of Household Food Access; Indicator Guide: http://www.fao.org/fileadmin/user_upload/eufao-fsi4dm/doctraining/hfias.pdf
- · Guidelines for measuring household and individual dietary diversity: http://www.fao.org/3/a-
- o Women's Empowerment in Agriculture Index (WEAI) Resource Center: http://www.ifpri.org/topic/weai-resource-center
- o Integrating Gender and Nutrition in Agricultural Extension Services (INGENAES) Library: http://ingenaes.illinois.edu/library/
- Nutrition Innovation Lab, Tufts University: https://nutritioninnovationlab.org/
- o Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING): https://www.spring-nutrition.org/about-us

















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