



India Nutrition-Sensitive Agriculture Training

Facilitator's Guide



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ABOUT SPRING

The Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project is a seven-year USAID-funded cooperative agreement to strengthen global and country efforts to scale up high-impact nutrition practices and policies and improve maternal and child nutrition outcomes. The project is managed by JSI Research & Training Institute, Inc., with partners Helen Keller International, The Manoff Group, Save the Children, and the International Food Policy Research Institute.

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Nutrition-Sensitive Agriculture Training

The Nutrition-Sensitive Agriculture Training package provides basic training in nutrition-sensitive agriculture for Community Service Providers and Community Resource Persons, as they develop and disseminate nutrition-sensitive agriculture-focused community videos. This training is also appropriate for other community workers, and they are possible participants in this training. It focuses on basic technical knowledge, as well as several illustrative nutrition-sensitive agriculture practices for local community members. The training also helps build facilitation skills.

Throughout the Facilitator Guide, the trainers are referred to as "facilitators" and the trainees or learners are referred to as "participants."

Training package composition

The Nutrition-Sensitive Agriculture Training package has the following sections:

- 1. The Facilitator Guide will be used to train community workers in technical knowledge and skills related to key nutrition-sensitive agriculture practices that relate to the community. The competency-based, participatory approach uses established, adult learning principles.
- 2. The Facilitator Training Tips —also used for the maternal, infant, and young child community nutrition training— includes a variety of short documents that support the trainers in planning and executing the training. It is intended as a reference material or resource that the training team should review and discuss before the training.
- 3. The Facilitator *Training Aids* includes visual graphic materials and images that can be printed and laminated (if possible) for different sessions of the training.
- 4. The *Handouts* are for participants to take home. Because this training is designed for low literacy populations, there are only a few of these.

Planning the training

This series of important steps to plan a community training event needs careful consideration. See the Facilitator Training Tips for specific guidance.

Specific learning objectives of the training

By the end of the two-day training, participants will know how to guide the production and dissemination of videos that promote nutrition-sensitive agriculture practices appropriate to local agricultural conditions and seasons. Specifically, participants will have the necessary background to—

- 1. Understand how agriculture impacts nutrition and to apply that knowledge to identify practices that promote them through community videos.
- 2. Use the videos to facilitate community discussions about how agriculture impacts nutrition.
- 3. Respond to community questions and concerns about how agriculture impacts nutrition, as arising during the video screenings, facilitated discussions, and follow-up activities.

Target group and training team

This training is for community workers who interact with mothers, fathers, and other caregivers of infants and young children.

This training requires at least two facilitators, but three facilitators would make small group work and other exercises easier. Ideally, plan for no more than 20–25 participants. The facilitators should be familiar with the basic concepts related to agriculture production, storage, and marketing; they should have completed SPRING's training on maternal, infant and young child nutrition, as well as have community-based experience and skills in facilitating the training of community workers.

Training structure

The Facilitator Guide includes 12 sessions, 15 to 80 minutes each, divided between the two-day training.

Each session includes—

- Learning Objectives
- list of materials needed
- advance preparation
- time allotted
- facilitator instructions for activities related to each learning objective
- resources for the session.

Training methodology

The ultimate goal of this *Nutrition-Sensitive Agriculture Training* is to prepare participants to support the improvement of community members' agriculture practices so they can better support good nutrition. The competency-based participatory training approach used in the facilitator guide reflects key principles of social behavior change communication, with a focus on promoting small doable actions. The approach recognizes the widely acknowledged theory that adults learn best by reflecting on their own personal experiences

The approach uses the experiential learning cycle method and prepares participants for the hands-on performance of behavior change and negotiation skills. The course uses a variety of training methods, including visual aids, demonstrations, group discussion, case studies, role plays, and practice.

Exercises or activities are part of each session and the resources associated with each learning objective help the participants understand, internalize, and remember the information shared during the training.

Training location and set up

Select a training site with the local participating organization and community leaders. Wherever possible, the training location should be convenient to both the participants and facilitators. It should be clean, comfortable, have good lighting, and have enough space to allow participants to sit comfortably in a large circle and break into smaller groups for various activities. To create a comfortable training space, spread floor mats on the floor; place several chairs around the edges of the training space for participants and facilitators who are not comfortable sitting on the floor. Set up a table for training aids in one corner of the room. Ensure that wall space or stands for flipchart paper are available for the exercises or to display session notes, graphics, and other training information.

For the composting demonstration, select a site that will accommodate this exercise. See **Session 12: Safe Composting, Healthy Farmer** for details.

Training Aids Key: Day 1

	urs and 45 minutes) riculture better work for nutrition?					
Session #	Title	Training Aids				
Session 1	Introduction: Why are we here?	None				
Session 2	Connecting agriculture and nutrition	1. Care giving 2. Carrying water 3. Eating 4. Family 5. Food 6. Growing and raising 7. Handwashing 8. Hazards 9. Health care 10. Income and expenditure 11. Joint decision-making 12. Latrine 13. Processing 14. Selling 15. Storing 16. Working in the field				
Tea Break		None				
Session 3	Seasonal changes that affect nutrition	 Seasonal Calendar—7 categories, 15 images: Holidays (candle) Food availability (full and empty food baskets) Women's labor (house, working in the field, carrying bricks, carrying water on head) Men's labor (working in field, building, at market) Income (hands with money) Health (person coughing, defecating, feverish) Shocks (drought) 				
Energizer		None				
Session 4	Daily activities that affect nutrition	3 daily activity charts: 1. Fathers 2. Grandmothers 3. Mothers				
Lunch Break		None				
Session 5	Communication styles, relationships, and household decision-making	5 images: 1. Elder man 2. Elder woman 3. Family group 4. Husband 5. Wife				
Session 6	Planning exercise: Making spending decisions together	None				
Tea Break		None				
Session 7	Wrap up, Q&A, and summary of day 1	None				

Training Aids Key: Day 2

DAY 2 (7 hours and 50 minutes) How can individual agricultural practices support nutrition?								
Session #	Title	Training Aids						
Session 8	Opening day 2 and recap exercise	None						
Session 9	Getting enough good food all year	 36 images: Grow/raise Harvest/process/store Sell/buy Food basket Money jar 16 food images: carrots (4), eggs (6), fish (4), papaya (2) 15 money images 						
Tea Break		None						
Session 10	Problem solving, from producing through buying and selling	None						
through buying and selling		 15 images of rice production stages: Land preparation Nursery preparation Seeding Uprooting of seedlings Transplanting Transplanting Weeding Harvesting Carrying paddy Threshing Winnowing Drying Storing Milling Marketing 12 female images 14 heavy labor images 						
Lunch Break		None						
Session 12	Making staple crops farming better for nutrition	None						
Session 13	Safe composting, healthy farmer	8 images of compost preparation						
Tea Break		None						
Session 14	Summary/Q&A, and wrap-up	None						

Materials needed for the training:

- Flipchart papers
- Flipchart stand
- Markers
- Masking tape
- Blank pieces of paper
- Pens for each participant
- Name tags (pieces of paper with safety pins)
- One marker (such as a bottle cap or plastic disk) per participant
- Participants' folders (or envelopes)
- Five folders to hang on the wall
- 60 pebbles or similar small object (must be visible on white background)
- Rubber ball or ball of paper
- Computer with Internet connection
- Pico projector to show a video (if not available, you can show the video on the computer)
- Materials/site for composting pit demonstration:
 - site (see Resource 12.1: Steps for Safer Composting)
 - pits (at least one per training, but two is better), 1 meter x 1 meter x 1 meter
 - shovel
 - bamboo sticks or similar sticks to serve as base for a compost pit
 - dry brown matter (leaves, bark, twigs and branches, dry pods/crop residue, straw, sawdust, wood chips, and other materials such as shredded cardboard and paper, but no tape or polythene); no plants with disease or pesticides, nor wood with chemicals
 - green waste (grass, vegetable scraps, coffee grounds, eggshells, fruits, and other kitchen waste); do not use meat, dairy, oils, or grease (e.g., no meat nor fish bones)
 - poultry litter and/or cow dung (do not use dung from meat-eating animals like cats or dogs)
 - water (a few liters) and a small container to use to pour it over the pile
 - bamboo/straw/banana leaves/thatching to cover pile
 - long stick
 - 20 small stars made from colored paper, and safety pins
- Images from *Training Aids* for each session, as described in each session:
 - icons from *Training Aids: Session 2*
 - pictures representing husband, wife, elder man, elder woman, and family group (see Training Aids: Session 5)
 - strips of paper with key decisions printed on them (see *Training Aids: Session 5*)
 - three smiley faces for each day's evaluation (see *Training Aids: Session 7*)
 - images of "grow/raise," "harvest/process/store," and "sell/buy" (see Training Aids: Session 9)
 - images of a "basket" and a "money jar" (see *Training Aids: Session 9*)
 - cutouts of "food" (15–20) and "money" (10–15) (see Training Aids: Session 9)

- o images of women symbol, man symbol (15 each) (see *Training Aids: Session 11*)
- images (on laminated cards) of "strenuous/heavy" symbol that can represent hard physical work (see
 Training Aids: Session 11)
- images (on laminated cards) of the following steps of rice production (see Training Aids: Session 11)
 - a. land preparation
 - b. nursery preparation
 - c. planting (including broadcasting)
 - d. uprooting
 - e. transplanting
 - f. weeding
 - g. harvesting
 - h. carrying paddy
 - i. threshing
 - j. winnowing
 - k. drying
 - I. storing
 - m. milling
 - n. marketing.
- o For images representing each step in composting, see *Training Aids: Session 13*
- Copies of handouts, as described in each session
 - Resource 4.1: Pictorial Daily Activity Schedule for Family Members-copies for all (see **Handouts:** Session 4)
 - Resource 6.1: Household spending decision case studies—one piece of paper per participant; each person does not get all four slips of paper (see **Handouts: Session 6**)
 - Resource 9.2: How Families Can Get More Good Food through Growing and Raising; Harvesting,
 Processing, and Storing; Selling and Buying–copies for all (see **Handouts: Session 9**)
 - Resources 10.1: Grow and raise; Harvest, Process, and Store; and Sell and Buy—one piece of paper per
 participant; each person does not get all three (see **Handouts: Session 10**)
 - o Resource 13.1: Steps for Safer Composting—copies for all (see **Handouts: Session 13**).
- Pre-prepared flipcharts:
 - Flipchart page with the overall training objectives.

By the end of the two days of training, participants will be able to—

- 1. Understand how agriculture impacts nutrition, and apply that understanding to identify practices that could be promoted with community videos.
- 2. Use the videos to facilitate community discussions about how agriculture impacts nutrition.
- 3. Respond to community questions and concerns regarding how agriculture impacts nutrition, during the video screenings, facilitated discussions, and follow-up activities.
 - o flipchart page for participants' training expectations
 - o flipchart page with proposed training "ground rules," including start and end times, breaks, and lunch

- flipchart pages with drawn template for participants' answers during group work 10.1: Grow and raise; Harvest, Process, and Store; and Sell and Buy-one flipchart per group (either Grow and raise; Harvest, Process, and Store; and Sell and Buy) (see **Handouts: Session 10**).
- Charts (laminated if possible):
 - wall chart of seasonal calendar (3-4 copies)
 - one floor chart of mother daily activity schedule
 - one floor chart of father daily activity schedule
 - one floor chart of grandmother daily activity schedule.
- Other resources for the sessions:
 - pre-assessment questions for co-facilitators to note responses found in session 1 of this guide
 - facilitator version (with the prompts) of Resource 10.2: Discussion Guides (see Training Aids: Session 10)
 - video, Interculture in Nursery in Odisha (India): Transplanting of Lalata Paddy Oriya Varrat Odisha. https://www.digitalgreen.org/discover/VARRAT/India/Odisha/Odia/Interculture%20in%20Nursery/6/
 - video: Compost and Manure in Odisha (India): Amrutpani https://www.digitalgreen.org/discover/PRADAN/India/Odisha/Odia/Compost%20and%20Manure/
 - post-assessment questions for co-facilitators to note responses found in session 13 of this guide.

Training Schedule: Nutrition-Sensitive Agriculture Training

DAY 1 (7 hours and 50 minutes) How can agriculture better work for nutrition?								
Session #	Content	Duration						
Session 1	Introduction: Why are we here?	40 minutes						
Session 2	Connecting agriculture and nutrition 3	55 minutes						
Tea Break		15 minutes						
Session 3	Seasonal changes that affect nutrition	60 minutes						
Energizer	(optional)	15 minutes						
Session 4	Daily activities that affect nutrition	45 minutes						
Lunch Break		60 minutes						
Session 5	Communication styles, relationships, and household decision making	80 minutes						
Session 6	Planning exercise: Making spending decisions together	70 minutes						
Tea Break		15 minutes						
Session 7	Wrap up, Q&A, and summary of day 1	25 minutes						
	DAY 2 (7 hours and 55 minutes) How can individual agricultural practices support nutrition?							
Session 8	Opening day 2 and recap exercise	20 minutes						
Session 9	Getting enough good food all year	60 minutes						
Tea Break		15 minutes						
Session 10	Problem solving, from producing through buying and selling	60 minutes						
Session 11	Men's and women's roles from producing through selling and buying	90 minutes						
Lunch Break		60 minutes						
Session12	Making staple crop farming better for nutrition	25 minutes						
Session 13	Safe composting, healthy farmer	80 minutes						
Tea Break		15 minutes						
Session 13	Summary/Q&A and wrap-up	50 minutes						

Session 1. Introduction: Why Are We Here?

Learning objectives:

By the end of the session, participants will be able to—

- Discuss their own expectations and explain "why we are here."
- Consider their own current thinking about how agriculture contributes to nutrition.

Materials:

- flipchart papers and stand, plus markers and masking tape
- name tags (pieces of paper with safety pins)
- participants' folders (or envelopes)
- flipchart page with overall training objectives:

By the end of the two-day training, participants will be able to—

- 1. Understand how agriculture impacts nutrition, and apply that understanding to identify practices that could be promoted with community videos.
- 2. Use the videos to facilitate community discussions about how agriculture impacts nutrition.
- 3. Respond to community questions and concerns regarding how agriculture impacts nutrition, during the video screenings, facilitated discussions, and follow-up activities.
 - flipchart page for participants' training expectations
 - flipchart page with proposed training "ground rules," including start and end times, breaks, and lunch
 - pre-assessment questions.

Advance preparation:

- Prepare and set out sign-in sheet.
- Set out name tags.
- On a flipchart page, write out the "training objectives," but do not label it "nutrition-sensitive agriculture."
- Prepare a flipchart with "expectations" written at the top.
- Put up flipchart with "ground rules" from maternal, infant, and young child community nutrition training (if you do not have that flipchart, start with a blank page).

Total duration: 45 minutes

Learning Objective(s): Discuss participants' expectations and explain "why we are here."

Methodology: Facilitated discussion

Suggested time: 15 minutes.

Discussion (15 minutes):

- 1. Ask the group and record answers on a flipchart labeled "expectations." Because you know this training is about how agriculture impacts nutrition, what do you expect to learn?
- 2. Introduce the training objectives previously written on a flipchart. Lead a discussion comparing expectations with the objectives.
- 3. Review the training ground rules, including the following the training schedule. Ask: Would the group like to add or change anything on the list?
- 4. Post the objectives and expectations on one wall, and keep them posted throughout the training course.

Learning Objective(s): Identify participants' current knowledge about how agriculture contributes to nutrition.

Methodology: Non-written pre-assessment

Suggested Time: 25 minutes.

Non-written pre-assessment (25 minutes):

- 1. Ask: All participants please form a large circle with your back facing the center and not touching your neighbor.
- 2. Explain: The facilitator will read 23 statements out loud. Without looking at the other participants, each participant will respond to the statement using one hand. You are not expected to know the answers—this is just the first day of training. Also, answers are not always correct or incorrect. You will not be judged for your answer. With your hand behind your back, use an open palm if you agree, or think the statement is true; use a closed fist if you disagree, or think that the statement is false; and use two pointed fingers in the shape of a "V" if you don't know, or are unsure. Remember, it is okay to admit you do not know. This is all new material! We will read each question twice. Do not indicate your answer with your hand until we have read the question a second time.

Facilitator: Quickly show each action a few times to ensure that everyone understands.

- 3. Read the statements from the pre-assessment twice. Other facilitators stand in the middle of the circle and record the answers and note which topics (if any) are confusing.
- 4. After the pre-test, explain: The topics covered in the pre-assessment will be discussed later during the training.

Pre-assessment: What do we know now?

#	Statement	True	False	Don't know
1	A family member's nutrition can affect his or her ability to work and earn income.	Х		
2	Agriculture can help a family pay for food, health, and care.	Х		
3	Increasing agricultural production will definitely improve family nutrition.		Х	
4	A wealthy family can have poor nutrition.	X		
5	Technologies that reduce agricultural labor can help improve family nutrition.	X		
6	A mother-in-law harvesting a crop so that her pregnant daughter-in-law can rest is good for family nutrition.	X		
7	To improve nutrition, families should consider storing some of their harvest to consume or sell later.	X		
8	Husbands and wives should discuss how they will spend income.	Х		
9	Using income to buy improved seeds will definitely improve family nutrition.		Х	
10	Poor food storage can affect the availability and quality of food.	Х		
11	The quality, quantity, and variety of food are all important for nutrition.	Х		
12	How a family harvests, processes, and stores its food does not matter for nutrition.		Х	
13	Improved compost is ready to use when it is fully decomposed, smells clean, and looks like black soil.	Х		
14	The husband of a breastfeeding woman should do more of the heavy work so his wife can rest.	Х		
15	Time dedicated to agriculture can take away from time caring for children and pregnant women.	Х		
16	Men should make all the decisions about what to grow and what to buy to ensure good family nutrition.		Х	
17	Working together, families can make spending decisions to improve their nutrition.	Х		
18	A husband and wife should decide together how much of its production is sold rather than consumed.	Х		
19	Selling snack foods and then using this income to pay for health care can improve family nutrition.	Х		
20	When a family's harvest becomes moldy, the family should eat that produce rather than sell it.		Х	
21	Penning chickens can be good for family nutrition and for egg production.	Х		

#	Statement	True	False	Don't know
22	Hygiene and sanitation when harvesting and processing crops can improve a family's nutrition.	x		
23	As an ingredient in improved compost, dry manure is safer to use than wet manure.	Х		

Session 2. Connecting Agriculture and Nutrition

Learning objectives:

By the end of the session, participants will be able to—

- Describe why nutrition is important for family well-being now and in the future.
- Describe how farming and other work contributes to (or can harm) family nutrition, especially for women and children.
- Describe ways that improving farming practices can help solve common nutrition challenges in their community.

Materials:

- Flipchart papers and stand, plus markers and masking tape
- Training Aids: Session 2: Two-three sets of full-page icons representing different parts of the pathways (depending on group size; make one set per group of 10 participants).

Advance preparation:

Print the sets of large images representing the pathways (see *Training Aids: Session 2*). Label the back of each set, so that, after use, the sets can be put back together.

Total duration: 55 minutes

Learning Objective(s): Understand different ways that farming contributes to family nutrition. Consider how improved farming practices can help solve family nutrition challenges.

Methodology: Facilitated discussion, group work

Suggested time: 55 minutes.

Discussion (15 minutes)

- 1. Ask participants the following and discuss for five minutes; write responses on a flipchart labeled "Nutrition contribution to family well-being."
 - From what we learned in the maternal child nutrition training, why is nutrition important? How does nutrition contribute to family's well-being? How does nutrition help children grow up to be healthy, smart, and strong?

Prompt as needed:

- i. Well-nourished family members can better contribute to the work of the family—they will be sick less and will have more energy.
- ii. Well-nourished children will do better in school.
- iii. Women who are better nourished in pregnancy are more likely to stay healthy and to have healthy children who survive and grow well.
- 2. Ask participants each of the following questions; discuss each question for five minutes. Write responses on a flipchart.

As you work, without explaining, categorize responses into (unlabeled) columns for (1) producing food; (2) using income for food/health/care; (3) caring for women and children;

and (4) "other," if responses are not immediately clear.

a. Ask and write on flipchart that you label "Farming contribution to nutrition." How does farming and other work that family members do contribute to family nutrition, including nutrition for women and children?

Prompt, as needed:

- producing food to eat (diverse and animal source foods, as well as staples)
- ii. producing food to sell
- iii. earning income that can be used to buy food or health care
- iv. food and other products can be collected from the forest, used at home, or sold.
- b. Ask and write on flipchart that you label "Improved farming; improved **nutrition.**" How can improving farming practices help solve nutrition challenges for families in this area?
- c. Ask and write on flipchart that you label "Farming can harm nutrition." Does farming work have any bad effects on family nutrition, including nutrition for women and children? What improvements can we make to minimize the bad impacts on health and nutrition?
- 3. Wrap up the discussion: Notice that our responses tend to group together into producing food; using income for food and health; and care for women and children.

Group work (15 minutes).

4. Show the icons for the group work, and ask participants what each one represents. You can fill in any meanings that are unclear. Then say: Please divide into two groups and sort the icons to show the connection from farming to improved nutrition. You have 10 minutes to work.

Sharing group work (25 minutes).

5. After they finish, let the group put it on the wall and give each group 3–5 minutes to present what they did.

Following is a sample of how the images could be placed on the wall after the participants finish. Other arrangements are acceptable, if the participants can explain their thinking.



Wrap up (5 minutes):

6. This training will build on what we learned in the maternal, infant, and young child nutrition training, but it will focus on ways farming can help solve some nutrition challenges. That is, the main ways agriculture can help address nutrition challenges in communities is by providing access to food, health, and care.

Session 3. Seasonal Changes that Affect Nutrition

Learning objectives:

By the end of the session, participants will be able to—

Identify how seasons impact access to resources that rural families need to access food, health, and care.

Materials:

- Resource 3.1: Seasonal Calendar—copies for all (see **Training Aids: Session 3**).
- wall chart of seasonal calendar—using several flipcharts taped together, recreate the seasonal calendar on the wall; if relevant, label months and rows in local language and, if possible, make four laminated copies (one per group, plus one for facilitator) of the calendar
- flipchart page for each season (3–5 flipcharts)
- blank pieces of paper, or if wall chart is laminated, a non-permanent marker (for marking changes on the seasonal calendar
- masking tape
- flipchart papers and stand, plus markers and masking tape.

Advance preparation:

- Recreate and post the seasonal calendar on the wall, but cover it until it is introduced during the session.
 Ensure that the seasonal calendar can be shown, row by row, during the session. If relevant, label months and rows in the local language.
- Copy handouts of seasonal calendar for all participants (see Training Aids: Session 3).
- Set aside flipcharts for the group work.

Total duration: 60 minutes

Learning Objective 1: Identify how seasons impact access to resources that rural families need to provide food, health, and care.

Methodology: Presentation, large group discussion, group work

Suggested time: 60 minutes.

Introduction (20 minutes)

- 1. *Introduce lesson*: We just discussed the nutritional challenges that community members face, and how improving farming practices can help solve some of the challenges. We live in environments that change, so these challenges change. We will look at how the challenges change during the year.
- 2. VARRAT, Digital Green, and SPRING worked together to create a chart to document things that occur throughout the year. One-by-one, reveal each row of the wall chart re-creation of Resource 3.1: Seasonal Calendar. As you reveal each row, introduce the topic of the row and explain what the icons mean. Ask if the group would like to change or add anything;

make changes directly on the calendar with a non-permanent marker. You can also ask if they would like to emphasize some items that have a big impact (you can circle ones they want to emphasize):

- a. Months of the year
- b. Holidays/festivals
- c. Food availability

Ask: Is food very scarce at other times?

d. Labor roles

Be sure to explain: The "men" category includes unmarried men, fathers, and grandfathers, all of whom may do different types of labor at different times. The "women" category includes unmarried women, mothers, and grandmothers, all of whom may do different types of labor at different times.

- e. Income flow
- f. Health

Explain: Most of these issues were probably covered in the maternal, infant, and young child nutrition training. But, when do they happen during the year? Are there others?

g. Environmental shocks

Ask: Do other shocks happen during the year? When do they happen?

Group work (20 minutes)

- 3. **Say**: The current seasonal calendar is divided into 12 months. Please help me divide the calendar into seasons. **Label each season on the calendar. As an example, participants in the first trainings said summer was February to July, rainy was August to October, and winter was November to January.**
- 4. Now, break into groups, one group for each season. In your group, list our how these topics—holidays, food availability, labor, income, health, and environmental shocks—impact access to food, health, and care. How is the ability to access food, health, and care impacted by each row on the seasonal chart? You have 15 minutes to work. (*Give each group a seasonal calendar*.

Facilitators with groups may use prompts.)

- a. Holidays/festivals
 - demand time, labor, income, and food
 - limit time available to make money (income) or provide care (health).
- b. Hunger seasons
 - Determines decisions made around food purchases and limits families' ability to provide food, both through production and purchase
 - Limits families' ability to make decisions on how much food to eat and what kinds of foods to eat.
- c. Labor roles
 - Labor directly impacts women's health, especially significant to pregnant women and women exclusively breastfeeding, and through them, children under 2 years of age.
 - Limited labor limits production, as well as income.
 - The time dedicated to labor potentially takes away time from health and care.
- d. Income flow
 - Determines families' ability to access resources, such as food and health supplies.

Limits families' ability to provide food, access health services, and provide care because of time spent earning additional income.

e. Health

- Determines family members' ability to work productively, which impacts the family's income and the family's food production.
- Impacts child and infant development.
- Limits ability to work and grow.
- Limits ability to provide care.
- f. Environmental shocks
 - Determines ability to produce, directly affecting food available and indirectly affects income.
 - Impacts food and income, which can have consequences for health.
 - Impacts health directly.
- 5. While the groups work, walk around and give participants a flipchart; ask them to outline the top 1-3 challenges to accessing food, health, and care, which they will report about for that season.

Sharing group work (15 minutes)

6. Invite presentations: Using the flipcharts for each season, each group please tell us the main challenges that community members face in that season.

Wrap-up (5 minutes)

- 7. Lead brief discussion: Now that we have talked about how important seasonality is to families' access to food, health, and care, what do you want community members want to talk about in each season?
- 8. **Hand out copies of** Resource 3.1: Seasonal calendar.

Resources for this session:

Resource 3.1: Seasonal Calendar

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Holidays	1	1	1			1	1			1	1	
Food availability				4	_	_		4	_	_		
Labor, women				**	T							
Labor, men	****	J.R.				J.	<u>ال</u> از	J.	ļŗ.	ļŗ.	ļŗ.	م م السش
Income					2) F89	2	2	1				
Health	:;· [⟨] ٩ (ن کی (4	. ~	?	?	≈	***	≈	:;;⟨५⟩
Environmental shocks											* *	* *

Optional energizer: Agree or disagree (to do if time permits)

Learning Objectives: To share and discuss beliefs about families, gender, and decision making.

Methodology: Voting with your feet, discussion

Suggested time: 15 minutes

Voting with your feet and discussion (15 minutes)

- 1. Tell participants: We will read two statements. If you agree with a statement, please walk to one side of the room; if you disagree, walk to the other side of the room; if you think it is more complicated than agree or disagree, walk to the middle of the room. Show participants where to stand for each option.
- 2. **Read:** "To ensure peace in the home, all family members should have equal access to food, health, and care." After a few minutes, ask participants to walk to the appropriate place.
 - a. Please, will several volunteers in the agree, don't agree, and it's complicated groups share why they chose their group?
 - b. Is this true for the families here? Why or why not? Can mediated videos improve equal access?
- 3. **Read the next question:** "Men and women in families need to participate equally in decision making about earning and spending money." After a few minutes, ask participants to walk to the appropriate place.
 - a. Please, will several volunteers in the agree, don't agree, and it's complicated groups share why they chose their group?
 - b. Is this true for the families here? Why or why not? Can mediated videos improve equal participation in decision making about money?
- 4. Tell participants: Thank you for your participation. In the formative research done with communities last year, men and women told us that family happiness, peace, and shared decision making are very important to them. We'll continue talking about issues related to different specific nutrition-sensitive agriculture practices throughout the training.

Session 4. Daily Activities that Affect Nutrition

Learning objectives:

By the end of the session, participants will be able to—

Identify how daily roles between family members affect nutrition.

Materials:

- Handout: Resource 4.1: Pictorial Daily Activity Schedule for Family Members—copies for all.
- One floor flipchart of mother daily activity schedule, created from cutouts in Training Aids Session 4. Use the mother daily activity schedule in Training Aids Session 4 as a model to create the flipchart.
- One floor flipchart of father daily activity schedule, created from cutouts in Training Aids Session 4. Use the father daily activity schedule in Training Aids Session 4 as a model to create the flipchart.
- One floor flipchart of grandmother daily activity schedule, created from cutouts in Training Aids Session 4. Use the grandmother daily activity schedule in Training Aids Session 4 as a model to create the flipchart.
- Blank pieces of paper, or non-permanent markers, if schedules are laminated (participants will use to make changes to the daily activity charts).
- Make 60 "stones," or 1 x 1 centimeter pieces of colored paper, or other small item that will be visible during discussion.
- Flipchart papers and stand, plus markers and masking tape.

Advance preparation:

- Copy handouts of daily activity schedule for all participants (see *Training Aids: Session 4*).
- Prepare the three floor flipcharts for group work. Draw the lines and the sun and moon images found in Resources at the end of this session; tape the cutouts based on the models from the *Training Aids* for Session 4.
- Put each (mother, father, and grandmother) daily activity schedule on the floor.

Total duration: 45 minutes

Learning Objective: Identify daily tasks in households and how managing family members' time on agricultural and household tasks can help nutrition.

Methodology: Presentation, discussion, group work

Suggested time: 45 minutes.

Introduction (5 minutes)

- *Introduce session:* We just talked about how food availability, labor, income, and health vary throughout the year—all affect nutrition. Now, the group will examine how activities vary over the course of the day and between household members.
- Give everyone a copy of Handout: Resource 4.1: Pictorial Daily Activity Schedule for Family Members with all three charts. Explain: This daily activity schedule, completed in communities, shows how mothers, fathers, and grandmothers seem to spend time each day. Then, ask the group:
 - o What do you see?
 - o Is this the pattern in your community?
 - o Would you change anything?

Group work (15 minutes)

- Ask participants to break into three groups (for: fathers, grandmothers, and mothers).
- Explain: Every day, family members conduct activities that impact household nutrition.
- Give each group one of the three floor flipcharts (father, grandmother, and mother). Give each group 10 stones.
- Ask: Your group will place a stone on any activity that impacts the nutrition of family members.
 Think about the activities this family member does that impacts the family's nutrition? Work together for 10 minutes to determine where to place the stones. If small groups need prompting in thinking about where to place a stone, ask about how the family makes food, purchases food, and provides care.

Sharing group work (15 minutes)

- **Ask:** Each group presents its chart and shares why they placed the stones with the larger group. Start with the grandmother, then the father, and finally the mother.
- After each group presents, the participants can discuss the placement. If the participants feel strongly that a stone should be moved, the presenter can move it.

Wrap up (10 minutes)

- Prompt discussion by asking the following questions, if appropriate:
 - o How is food preparation done when the wife has so many demands?
 - What happens to breastfeeding and feeding small children when the mother has so many demands?
 - o What happens to the woman's own nutritional needs when she has so many demands?

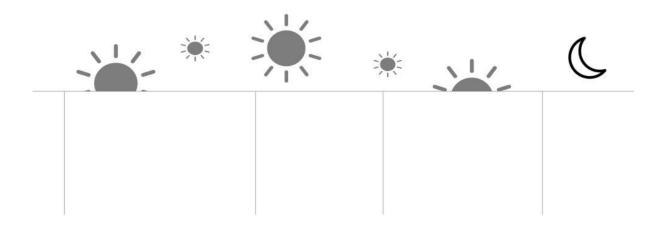
Address the following points, as relevant:

- o Women are very busy. They need to care for the children, cook, clean, etc.
- Because of the demands, women often do not have time to cook properly, take care of themselves during pregnancy and breastfeeding, and care for the children. This endangers the nutrition of women and the entire family.
- To protect the nutrition and health of all family members, families may need to change common habits and be more supportive.
- Wrap-up: In summary, each household member impacts nutrition through food production,

labor, income, food purchase, and caregiving. An important message of this training is that families need to work together to reduce time and labor burdens on pregnant and breastfeeding women.

Resources for this session:

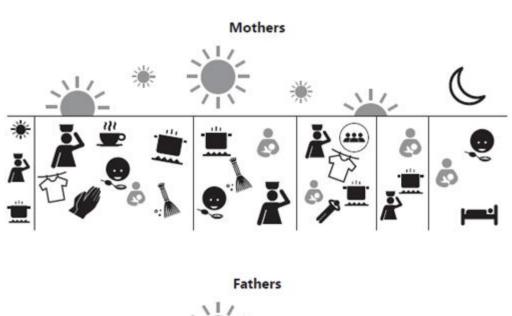
Draw the following lines and images of the sun and moon three times on three flipcharts to fill the entire page. Then, use the cutouts from the Training Aids for Session 4 to recreate the daily activity schedule for mothers, fathers, and grandmothers.

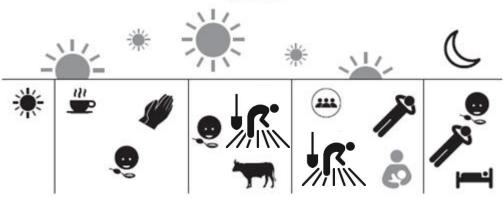


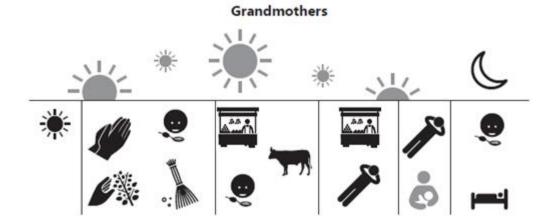
Resource 4.1: Daily Activity Chart Image Key

Care giving		Preparing food	- 111
Carrying water		Religious Activity	
Cleaning house	•:	Rest	
Drink tea	<i>₹</i>	Selling in market	**************************************
Eating		Sleep	-
Gathering wild food		Wake up	
Group meeting		Washing Clothes	
Managing		Working in	1

Resource 4.2: Pictorial Daily Activity Schedule for Family Members







Session 5. Communication Styles, Relationships, and Household Decision Making

Learning objectives:

By the end of the session, participants will be able to—

- Describe how communication styles can improve or harm families' ability to make decisions together that benefit all family members.
- Describe how differences in power between different family members affect decisions about whether nutrition-sensitive agriculture practices are adopted.
- Link decisions about how income is used with improved access to or resources for food, health care, water and sanitation, and women's workload and time.

Materials:

- Pictures representing husband, wife, elder man, elder woman, and family group (see Training Aids: Session 5).
- Five folders to hang on wall, each with a picture of a family member
- Strips of paper with key decisions printed (see *Training Aids: Session 5*).
- Masking tape.

Advance preparation:

- Be familiar with directions for the two role plays—Happy Families and Who Decides What?—so you can give clear instructions to role play volunteers.
- Print pictures representing husband, wife, elder man, elder woman, and family group from *Training Aids:* Session 5.
- Assemble five folders to hang on the wall, with a picture on each folder. Ensure the image is consistently placed in relation to the folder, to prevent confusion as to which folder is with which image.
- Print strips of paper with key decisions on them from *Training Aids: Session 5*.

Total duration: 80 minutes

Learning Objective(s): Describe how communication styles can improve or harm the family's ability to make decisions together that benefit all family members.

Methodology: facilitated discussion, role play

Suggested time: 40 minutes.

Discussion (10 minutes)

- 1. **Ask participants:** What do the seasonal calendar and daily activity charts show us about the roles that men and women—both younger and older—play in agriculture and in nutrition? **Discuss for several minutes.**
- 2. **Explain:** Evidence shows that families have better nutrition when women are involved in decisions about agriculture and other work, income earning and spending, and health care issues. In the formative research done with communities in Keonjhar, men and women told us that family happiness and peace, and shared decision making, are very important.
- 3. We are going to explore these issues with role plays; participants will act out the roles of different family members in situations where decisions must be made. We hope they will have fun with this—don't take it too seriously.
- 4. We will finish the session with an exercise linking decisions households make about agriculture and income with improved access to food, health, and care—including a reduced workload for women.

Happy Family, Unhappy Family role play (30 minutes)

- 1. Ask for three volunteers.
- 2. Away from the rest of the participants, ask one volunteer to role play a mother-in-law who is busy cooking. Ask one volunteer to play a young wife who is pregnant, resting, and eating fish and rice. Ask one volunteer to play the husband, who is washing his clothes. They are part of a happy family. Each is happy with what he or she is doing, and each is happy with what the others are doing. Tell them they can be silly and have fun acting out this scene.
- 3. The actors should act out this scene for about 5 minutes.
- 4. After 5 minutes, clap for the actors and thank them. Ask them to return to their seats.
- 5. Ask for three different volunteers. Away from the rest of the participants, ask these volunteers to play the same roles: a mother-in-law who is busy cooking; a young wife who is pregnant, resting, and eating fish and rice; and the husband, who is washing his clothes. But this time they are part of an unhappy family. The mother-in-law and the husband are not happy that the young wife is resting and eating while they are each working. Tell them they can be silly and have fun acting out this scene.
- 6. Tell the actors they have about 5 minutes for this scene. After 5 minutes, clap for the actors and thank them. Ask them to return to their seats.
- 7. **Ask:** Would the volunteers from the Happy Family role play, please say something about how they felt when they were doing the role play?
- 8. **Ask**: Would the volunteers from the Unhappy Family role play please say something about how they felt when they were doing the role play?
- 9. Ask (15 minutes discussion):
 - a. How did you feel about each scene?
 - b. Would it be hard or easy to participate in decision-making discussions in each family and why?

- c. Do men and women tend to have different body language and voices when they discuss household decisions? If so, how does that affect equal participation in decision making?
- d. Could these situations happen here? What would make them more realistic?

10. Thank all participants and clap again for the role play volunteers.

Learning Objective(s): Describe how differences in power between family members affect decisions about whether nutrition-sensitive agriculture practices are adopted; link decisions about how income is used with improved access to or resources for food, health care, water and sanitation, and women's workload and time.

Methodology: Facilitated discussion, participatory exercise

Suggested time: 40 minutes.

Who Decides What exercise (10 minutes)

- 1. **Explain:** We just saw how family dynamics can affect family members' ability to contribute to decisions. Now, we will examine the many types of decisions that households make about farming, income, health, and caring practices. We are also going to discuss who makes the final decision about these issues. This exercise is not about who SHOULD make these decisions, but about who usually MAKES the decision.
- 2. Place the five picture pockets with pictures of family members on the wall for participants to see. Explain that these images are adults in an extended family: the mother, father, grandmother, grandfather, and the family unit. They live together and the grandmother and grandfather are still active.
- 3. **Explain:** We will read a question; raise your hand to volunteer to place the strip into the folder of the family member who makes the **FINAL** decision. If others disagree, let's discuss it, and the person who has the paper will decide.
- 4. Follow this process for each of the question strips (15 minutes), which are—
 - Who should do the physical labor or time-consuming labor related to farming?
 - Should we purchase this farming asset or input?
 - Should we borrow money for this growing season?
 - How much of this crop should we sell?
 - How will we use this piece of land?
 - How is cash earned from selling crops or forest products spent?
 - Should income be used to save money for improved farming tools, or to purchase additional vegetables and eggs each week?
 - Who will keep the compound clean and ensure our food and water is safe?
 - Who will purchase the additional food we need and other things, like soap?
 - What foods are purchased each week?
 - Who does the cooking?
 - Who feeds the children?
 - Who takes care of sick family members?
 - Should the family participate in a savings and loan scheme?

- Who decides it is time for a daughter to get married?
- When should a sick family member go to the health facility?
- Who decides what the main meal of the day will be?
- Who decides when it is time to plant new crops or start raising new animals?
- 5. **Ask:** Reflect on the exercise and discuss the following questions (10 minutes):
 - Who makes most of the decisions? Who is left out?
 - Who is involved in the big decisions about the children? Who is left out?
 - Who decides about money? Who is left out?
 - What does this say about the position of the wife in the household?
 - What if a woman has a lot of knowledge or skills about something, but is not included in the decision making?
 - What happens in situations where women want to change practices related to the nutritional needs and health care of themselves and their children, but they do not participate in these decisions?

Wrap-up (5 minutes)

- 6. **Explain:** some key takeaways from the session include—
 - There are links between household decisions about farming, income earning, and spending; accessing food, health, and care; and the health and nutrition of different family members
 - There is a link between who has power in the family and who makes decisions.
 - Women's increased participation in household decision making has been proven to improve health and nutrition.
 - It is possible to change how decisions are made in households, including changing communication styles so all members feel free to participate in decision making; and so that family members with more power listen to those with less power, who may have different knowledge and skills.

Session 6. Planning Exercise: Making Spending Decisions Together

Learning objectives:

By the end of the session, participants will be able to—

- Discuss how gender roles are challenging for families when making spending decisions together, and to make nutrition a priority for spending.
- Discuss how seasonal changes in income make it challenging for families to save money and plan ahead for spending.
- Suggest ways families can work together to address challenges to using income in ways that contribute to

Materials:

- Handout Resource 6.1: Scenario A and Scenario B (see Handouts: Session 6). One copy of each scenario per participant.
- Flip charts, tape, and markers.

Advance preparation:

Make copies for all participants of Resource 6.1: Scenario A and Resource 6.1: Scenario B (see **Training** Aids: Session 6).

Total duration: 70 minutes

Learning Objective(s): Understand how gender roles influence household decision making about spending, and how more equitable decision making can contribute to improved nutrition

Methodology: Small group work; discussion in large group

Suggested time: 70 minutes.

Working together to make decisions about income exercise (30 minutes)

- 1. Divide the participants into six groups. If your overall training group is under 15 people, you can make four groups:
 - Group 1, 2, and 3: Case Study 1
 - Group 4, 5, and 6: Case Study 2

Assign each group its case study and tell them these are fictional situations, which were simplified for this exercise.

- 2. **Set the stage:** Each group is a poor family. The household income is always limited and they must plan spending carefully.
- 3. Hand out only Scenario A section of each case study to the relevant groups.
- 4. Ask: Each group, please take about 20 minutes to read the description of the family, assign roles (mother, father, in-laws, children, etc.), and hold a family meeting to determine how to meet spending needs with the household income. Write the agreed-to plan, including the group's

reasons for the decisions.

5. After 20 minutes, or when groups have completed their family meeting, explain—Now circumstances have changed. Hand out the Scenario B section of Case Study 1 and Case Study 2 (Rising Food Prices or Poor Harvest) and explain that groups have time for another family meeting. Give each group 10 minutes to work together: hold another family meeting, and reset the family spending plan because of new constraints. The options offered for consideration are only suggestions, so please develop your own creative, but realistic, solutions. Record the new spending plan and reasons for decisions.

Sharing group work (20 minutes)

- 6. Pick two groups to present their plans to the full group, including what changes they made for the second scenario and why.
- 7. Ask the other groups to share if they made different decisions or changes between the first and second scenarios.

Discuss the planning exercise (20 minutes)

- 8. Ask and discuss with all the participants:
 - What were the most challenging decisions about food, health, and care, and did you resolve them?
 - Was it hard to stay in your agreed-to role during the discussion? Why or why not? Why might it be difficult for a mother or a child to speak up in a family discussion about spending decisions?
 - Do families here have these kinds of family discussions, or are these decisions usually made by one or two people? Do you think families should have regular meetings about how to spend income? Why or why not?
 - In real life, do people make and follow spending plans? Why or why not?
 - Do men and women tend to spend money on different things? What types of things?
 - If husband and wife have two different opinions, whose opinion is usually followed? Why?
 - What happens if other family members—grandparents, brothers and sisters of the father or mother—have different opinions from the mother and father?
 - How can having regular conversations help families make better spending decisions about food, health, and care?

Resources for this session:

Resource 6.1: Case Study 1, Scenario A, Family Spending Plan

You are a female, 16 years old, and completing your final year of high school. You have two sisters, age 9 and 10, who are also in school. You all live with your mother in a one-room home. Your father left the family a year ago to look for work in the city after a severe drought and flooding made farming too difficult. The family has not heard from him and he has not sent money home. Recently, your mother fell ill with stomach ulcers and needs medication to ease her pain. Your mother supports the family by selling odds and ends at the local market. She has already told you that you must leave school and find work to bring in some extra monthly income. Your dream is to attend college in the city to study accounting. In a good month, your mother brings in, on average, Rs.2,500.

To budget:

a.	Basic food stuffs (rice, dal, vegetables,	Rs.1,000
	cooking oil, salt, sugar, spices, turmeric,	
	weekly meat, fish, eggs, and snacks)	
b.	Cosmetics and hygiene (soap, face cream,	Rs.50
	etc.)	
C.	Rent for a stall in the market	Rs.300
d.	Mother's medication	Rs.500

Resource 6.1: Case Study 1, Scenario B, Rising Food Costs

Food costs are 40% higher and transportation costs are 30% higher. People are buying less at the market; your mother's monthly earnings has decreased to Rs1,800.

To budget:

a.	Basic food stuffs (rice, dal, vegetables,	Rs.1,000
	cooking oil, salt, sugar, spices, turmeric,	
	weekly meat, fish, eggs, and snacks)	
b.	Cosmetics (soap, face cream, etc.)	Rs.50
C.	Rent for a stall in the market	Rs.300
d.	Mother's medication	Rs.500

Resource 6.1: Case Study 2, Scenario A, Family Spending Plan

Your name is Shibanand and you live in Keonjhar. You are the father of five children: two sons and three daughters. You support your family, but are struggling to make ends meet. You work hard to grow paddy and some vegetables to help feed your family. You also have a small plot of sunflowers and you sell the seeds for a little extra money.

With purchasing new seeds and tools for farming, you also hope to put a new tin sheet roof on your home. Water leaks into your home in the rainy season, because the tile roof you have now is not waterproof. You just sold your harvest of sunflower seeds at the market and made Rs.30,000.

To budget:

a.	Food	Rs.3,600
b.	Upgrading your tools and farming irrigation	Rs.8,000
	system	
c.	Medical care at the doctor	Rs3,600
d.	New tin roof for your home	Rs10,000

Resource 6.1: Case Study 2, Scenario B, Poor Harvest

You had a bad harvest after a drought, followed by flooding. Food prices have increased by 50% and goods and services are more expensive. Your harvest of sunflowers brought you only Rs.22,000.

To budget:

a.	Food	Rs.3,600
b.	Upgrading your tools and farming irrigation	Rs.8,000
	system	
c.	Medical care at the doctor	Rs3,600
d.	New tin roof for your home	Rs10,000

Session 7. Wrap-Up and Summary of Day 1

Learning objectives:

By the end of the session, participants will be able to—

- Brainstorm agricultural practices that can contribute to nutrition for families, especially women and children.
- Discuss one or two things that they learned and/or liked about the day; know what to expect during the second day of training; and express their satisfaction or not with the first day of the training.

Materials:

- cutout of the three smiley faces for day one evaluation
- one object (such as a bottle cap or plastic disk) per participant.

Advance preparation:

Cut out three smiley faces and tape them to a bench or table near the exit. Give each participant a marker—for example, a paper clip—to note next to the smiley face that corresponds with his or her feelings about the first day of training.

Total duration: 25 minutes

Learning Objective(s): Brainstorm agriculture practices that can contribute to nutrition; share one thing that they learned or liked about the day; know what to expect during the second day of training; and express their satisfaction or not with the first day of training.

Methodology: Discussion in large group

Suggested time: 25 minutes

Brainstorming agriculture practices that can contribute to nutrition (10 minutes)

1. Ask: Let's brainstorm agriculture practices that might contribute to nutrition and how it could contribute.

Share learning from day 1 (10 minutes)

2. Ask: Please, think about one thing you learned today that you did not know or did not believe before, or one thing you liked about the day. Please raise your hand when you are ready to share your response. Call on them as they raise their hands. Try to get an answer from each person.

Setting expectations for day 2 and evaluating day 1 (5 minutes)

- 3. **Encourage:** Please return tomorrow, on time, so training can begin on time. We will explore how to make specific agriculture practices more nutrition-sensitive by increasing resources for food, health, and/or care.
- 4. Thank you for your participation. As you leave the training room, please evaluate the day by placing your object (paper clip) on top of the face indicating how you feel about the day.

Session 8. Opening Day 2 and Recap Exercise

Learning objectives:

By the end of the session, participants will be able to—

Recommit to rules set during day 1; discuss what they learned in day 1.

Materials:

- Short questions related to nutrition-sensitive agriculture topics from day 1. Each participant should ask at least one question; if the group is large, divide into two groups.
- Small stars made from colored paper, and safety pins, with at least one per participant.

Advance preparation:

- Make 20 small stars.
- Be able to answer the questions in Learning Objective 1, point 2.

Total duration: 20 minutes

Learning Objective 1: Review rules set during day 1; know what to expect during day 2; discuss one or two things that they learned in day 1

Methodology: Discussion in large group

Suggested time: 20 minutes.

- 1. Read the proposed training ground-rules that were posted and discussed at the beginning of day 1. Ask: Are there any questions or any item to add to the list?
- 2. **Propose:** Let's recall some of the information or ideas learned during day 1. The facilitator will ask several questions. Raise your hand if you think you know the answer. If the answer is good, we will give you a star. (Ask the questions and give stars. The exercise should be fun, with participants competing for stars.)
 - What is one benefit of good nutrition for a child?
 - What is one benefit of good nutrition for a mother?
 - What is one benefit of good nutrition for a father?
 - What is one benefit of good nutrition for a family?
 - How does good nutrition affect a person's ability to work?
 - How do seasonal variations in food availability impact nutrition?
 - How do seasonal variations in income impact nutrition?
 - Name one thing that someone could try to increase the amount of food they have throughout the year?
 - Name one thing that someone could try to protect their family from environmental shocks?
 - When the wife has many demands on her time, how can other family members help?
 - Give one example of how someone could try to communicate with their spouse.
 - Give one example of how someone could try to talk with their spouse about how money is spent.

- Give one example of when someone could try to talk with their spouse about how money is
- What is one health risk from farming that is related to nutrition?

Session 9: Getting Enough Good Food All Year

Learning objective:

By the end of the session, participants will be able to—

- Provide ideas about how families can get enough good food year-round, through improved
 - o growing and raising
 - o harvesting, processing, and storing
 - selling and buying.

Materials:

- Flipchart with the name of each season on top (created during day 1, session 3)
- Training aids, session 9:
 - o grow/raise
 - harvest/process/store
 - sell/buy
 - basket
 - o money jar.
- Two clear folders (you can use the ones from the decision activity)
- Cutout cards of "food" (15-20) and "money" (10-15) found in the handout of resource 9: How Families Can Get More Good Food through Growing and Raising; Harvesting, Processing, and Storing; Selling and Buying (see Handouts: Session 9).
- Flipchart papers and stand, plus markers and masking tape.

Advance preparation:

- On the wall, place images of "grow/raise," "harvest/process/store," and "sell/buy" (see *Training Aids:* Session 9).
- On the wall, place image of a "basket" and image of a "money jar" (see *Training Aids, Session 9*). Place a clear folder under each for participants to put the "food" and "money" into. If you don't have clear folders, ask them to tape the "food" and "money" on to the basket and jar.
- Prepare 15 cards of "food" and "money"; participants will place them on the basket and jar later (see Training Aids: Session 9).
- Print copies for all participants of Resource 6: How Families Can Get More Good Food through Growing and Raising; Harvesting, Processing, and Storing; Selling and Buying (see **Handouts: Session 9**).

Total duration: 60 minutes

Learning Objective: Provide ideas about how families can obtain enough good food year-round

Methodology: Interactive discussion, interactive case study exercise

Suggested time: 60 minutes.

Discussion (30 minutes)

- 1. **Remind:** As you know, it is important—in every season—for families, especially mothers and children, to have enough good food.
- 2. **Ask:** How do we define "enough good food"? For example, some categories can include quantity, safety, and variety. I'll mention the category, and you say examples of what that could mean. (*Prompt for the sub-bullets only as needed.*)
 - Quantity
 - i. Having enough food to store to ensure they have food throughout the year.
 - ii. Having enough food to process and sell to ensure they can buy other healthy foods.
 - iii. Having several meals each day and eat enough food to ensure they're satisfied.
 - Quality
 - i. Having food that looks good to eat.
 - ii. Having food that is not moldy, infested with bugs, or dirty (with soil, animal feces, etc.).
 - iii. Having food that does not make you sick.
 - Variety
 - i. Having eggs, chicken, or other meat for protein, vitamins, and minerals.
 - ii. Having pulses and other types of protein.
 - iii. Having different kinds of fruits and vegetables for vitamins and minerals.
- 3. Yesterday, we talked about seasons. During some seasons, families don't have enough food, or they may only be able to get one or two kinds of food. For example, from March–May, people may eat fewer green vegetables and more onions and potatoes. What is "enough good food" or a "good diet" in each season?
- 4. Why do families need quantity, quality, and variety of foods? (Prompt, as needed.)
 - To ensure the family can eat enough good foods, including vitamins, minerals, and protein to be strong and healthy.
 - If the family has enough, they will be better able to make choices to feed their vulnerable members enough.
- 5. **What** can a family try to do, in an ideal situation, to try to get enough good food year-round? They can try to—
 - Grow and raise "enough good food," including raising livestock and/or growing crops.
 - <u>Harvest, process, and store</u> that food carefully so it isn't wasted.
 - Sell and buy food wisely so that they can earn money and can afford to buy good food.

Case Study Activity (30 minutes)

- 6. We will hear a story about **how** families can obtain enough safe, quality, and variety of foods, year-round, contributing to the family's nutrition. Families can do any of these:
 - Grow and raise more food (growing/raising well).
 - <u>Harvest, process, and store</u> the food they have (doing it well, so it isn't wasted), and sell some for income (marketing it well).
 - <u>Buy</u> food from other people, after they've earned income; for example, if they sell some of their production (buy and sell well).
- 7. While we continue to read the story, whenever you think the family has done a good job, you

can jump up and go up to the basket and jar to—

- put an image of any kind of "food" into the "basket," and/or
- put an image of "money" into the "jar"
- when/if the family in the story has earned it.
- 8. Read the story (or invite someone else to if you know there's someone who is comfortable reading) in Resource 9.1: From Hungry to Happy found at the end of this session.
- 9. **Ask**: What have you learned in this conversation?
- 10. Give them Resource 9.2: How Families Can Get More Good Food through Growing and Raising; Harvesting, Processing, and Storing; Selling and Buying.

Resources for this session:

Resource 9.1: From Hungry to Happy

Here are the stories of a family that, at first, did not use good production, harvest, processing, storage, and marketing practices. In the **beginning**, the family does not produce enough food to meet their needs for calories, vitamins, minerals, and protein.

Because	Then
They grew only rice.	They have only rice to eat and to sell.
They did not maintain healthy soil (for example, by using compost).	Their production was low.
They did not have adequate rice to do value- addition, such as the making and selling of puffed rice.	They do not have money to pay for school fees; health care; or adequate quantity, quality, and variety of foods.
They did not store their rice properly.	They ran out of food before their next harvest.

Then the family watched videos showing a family growing rice, vegetables, and lentils; and raising chickens. After discussing the videos, the family decided they wanted to try some new things. But, even in this **second** season, they realized they still had a lot to learn.

The family	As a result
Borrowed some money to purchase carrot, spinach, and cowpea seeds; chicks; and materials to build a coop.	They grew a larger variety of foods .
Did not learn the best time to harvest the cowpeas.	They waited too long and many of the pods were very dry, resulting in damaged cowpeas, a small harvest, and inadequate seeds for the next season.
Left the cowpea pods on the ground to dry and later thresh.	The cowpeas got moldy and could not be sold, so they ate the moldy peas themselves and several of the children became sick
Discussed with the Community Service Providers good soil preparation, including production and use of compost.	Their vegetable production was very high.
Increased their consumption of a variety of vegetables and sold excess at the local market.	Income during the vegetable growing season was higher than normal.
Did not know how to can or dry their vegetables.	They still had a shortage of food during the hunger season.
Sold all their chickens to buy rice for the family.	They ate mostly rice—again.

The **third** season, the family decided to do a better job to earn income to purchase food, pay expenses, and purchase inputs. By the end, they became just like the happy family they saw in the video.

The family	As a result
Talks together about what they should grow and raise, and how.	They make the best investments they can think of together and production is good.
Practices good composting, improving the fertility of the soil.	Their vegetable production is very high.
Begins to also grow eggplant (brinjal), lemons, and red gram.	They have a variety of nutritious food to eat and sell all year, even in the hunger season.
Buys chickens, builds them a pen, and vaccinates them, so they can produce better and do not defecate where the baby plays.	They have eggs to eat and sell much of the year, and save some to feed the children and mother.
Decides together to eat some and sells the rest of the big basket of wild amaranth the grandmother harvests.	They have income to buy plastic sheeting on which to thresh their crops.
Dries their harvested pulse plants off the ground and threshes on clean, plastic sheeting. They store their pulses in a clean steel drum to protect from insects.	They have more pulses to consume and sell, well after the harvest.
Makes some puffed rice and dries mango as snacks to consume and sell.	They have snack foods and mangos to sell and consume later in the year when fruits and vegetables are limited.
Talks about what to do before the harvest, and the husband suggests they wash and dry the storage bags while they are waiting.	The seed is in good condition for the next season, when they can increase production.
The husband and wife participate in a producer cooperative that helps pay for health insurance.	The husband and wife bring home money for agricultural inputs and food and health costs are covered, in part.
The husband asks the wife what she will cook. They also talk about making sure she and their 6-month-old child get enough of the vegetables and meat he buys.	He goes to the market and buys the food ingredients she needs. The mother and young child are fed first.

Resource 9.2: How Families Can Get More Good Food by Growing and Raising; Harvesting, Processing, and Storing; and Selling and Buying

	If families can	Then
Grow	Grow or raise more food	the quantity of food available for the family to eat (and sell) will increase.
Raise	Grow or raise a larger variety of crops (rice, vegetables, pulses, fruits) and animals (chickens for eggs and meat, cows for milk)	The variety of foods and food products available for the family to eat (and sell) will increase.
	Discuss together the best practices for what and how to produce a variety of crops and animals	Contributions from all family members to these decisions are more likely to improve the quantity, quality, and variety of foods to eat (and sell).
Harvest, Process, and	Harvest, process, and/or store their crops and animal products using good practices	The quality of foods and food products available for the family to eat (and sell) will increase.
Store	Process or add value to crops or animal products food that is more appealing	These products may be more appealing, affordable, and valuable on the market, thereby increasing family income enabling them to buy a greater variety of foods or save money for food during the hunger season.
	Process foods for storage using good practices (e.g., drying maize, millet, pulses, and groundnuts to the appropriate moisture level)	The availability of foods will be extended for more months throughout the year.
	Discuss together the best practices for how to harvest, process, and store the food they have produced	Food losses and risk of illness from contamination will be less and prices for products sold may increase.
Sell and Buy	Sell some food they produce that does not need to be kept for consumption	Income for buying other foods or inputs needed to grow or raise food could increase.
j	Discuss together the best options for what foods and inputs to purchase	The family's overall diet could improve.

Session 10. Problem Solving from Producing Through Selling and Buying

Learning objectives:

By the end of the session, participants will be able to—

Discuss solutions to challenges that exist in growing and raising; harvesting, processing, and storing; and selling and buying more and better food for family consumption.

Materials:

- Flipchart papers and stand, plus markers and masking tape
- Pens for each participant (to draw on the Resource sheet).

Advance preparation:

- Print 10 copies of Resource 10.1: Discussion Guides (each participant will get one page, not all three), see Handouts: Session 10. Be sure to use the version from the handouts, not the Facilitator Guide Version from the Session Resources below.
- Copy the template from Resource 10.1 Discussion Guides onto one flipchart page for each small group to use when they report out after their discussion. One group will use the Discussion Guide for Grow and Raise; one will use the discussion guide for Harvest, Process, and Store; and one group will use the discussion guide for Sell and Buy (see Handouts: Session 10).

Total duration: 60 minutes

Learning Objective: Discuss solutions to problems in growing and raising; harvesting, processing,

and storing; and selling and buying more and better food for family consumption

Methodology: Discussion, small group work, group presentations

Suggested time: 60 minutes.

Small group work (30 minutes)

- 1. Introduce: Now that we have heard the story of a family that went from hungry to happy by using good practices from production to selling and buying, let's identify and solve some problems that might prevent families from accomplishing these things.
- 2. **Divide participants into three groups,** each focusing on a different stage of the production and marketing cycle: (1) growing and raising; (2) harvesting, processing, and storing; and (3) selling and buying.
- 3. Give participants the relevant copy of Resource 10.1 and the pens. Each group should write their answers (in words or pictures) on their pre-prepared flip chart. They will report out after the discussion. If groups do not have ideas, the facilitator can use the Facilitator Version of Resource 10.1, which has prompts to help participants get started (use only if needed).
 - What are some practices a family can do (in this stage of the cycle from production to selling/buying cycle)? Let's focus on small doable actions, rather than things that will require resources families don't have.
 - Which practice should we discuss? Now that we've selected a practice, let's discuss these

questions:

- Who usually makes the decisions about that practice?
- What helps to do that practice? Think about if that changes with the season. Think about if they are trying the practice for the first time.
- What makes it hard to do the practice? Think about if that changes with the season. And, think about if they are trying the practice the first time.
- How can family members work together to adopt that practice?

Sharing group work (25 minutes)

4. Each small group shares their flipchart (or resource sheet) and presents to the larger group. Identify common themes and answer participant questions.

Wrap-up (5 minutes)

- 5. **Wrap-up:** What did you learn from this exercise?
- 6. We just discussed various ways that families can work together to adopt new practices so they can produce, harvest, process, and store; or purchase enough diverse and safe food; and access the needed inputs, in every season.

Resources for this session:

FACILITATORS' VERSION Resource 10.1: Discussion Guide **Grow and raise**—Growing and raising more and more diverse foods

What are some good practices in this stage of the cycle?

- Cultivate according to season.
- Cultivate nursery; use System of Rice Intensification (SRI) method.
- Cultivation suitable to the family
- Good use of water.
- Make plan according to which crop will get more profit.
- Mix crops.
- Use new cultivation techniques.
- Plan how the family can get more nutritious foods.
- Prepare the field; prepare the land.
- Prepare the land and weeding.
- *Use seed treatment; use line transplanting.*
- Use seed treatment before cultivation.
- Start cultivation at the right time and use compost.
- *Use high-quality seeds.*
- Use organic compost.

Who usually decides (what to grow, how to grow it)?

- father
- family members.

What helps?

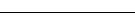
- agricultural equipment
- agricultural insurance
- compost
- good variety of seeds
- loan (access to finance) quality seed; seed treatment
- money
- new techniques
- planning
- processing land
- water.

What gets in the way?

- lack of water
- delay of government assistance, such as seeds
- government benefits, such as finance/loan/subsidies); this government assistance is a reaction to a natural calamity
- lack of availability of quality seed
- lack of money to use tractor, etc.
- money
- natural hazards
- technology related to cultivation (lack of techniques).

How can the family work together to adopt this practice?

- Every member of the family cooperates during the cultivation process.
- Grandfather and grandmother should help in getting good nutritious food.
- Use joint decision making while planning.
- Protect pregnant and lactating women and assign them lighter work.
- Pregnant and lactating women should not touch the chemical fertilizer with their hands.
- Use new technologies related to agriculture.



- - knowledge about cultivation process and proper

FACILITATORS' VERSION Resource 10.1: Discussion Guide Harvest, Process, Store—Harvest, process, and store to avoid losses

What are some good practices during this stage of the cycle?

- Cooperate and make decisions together (as a family).
- Dry the paddy properly and store it in a safe place.
- Bring the harvest home at the right time.
- If the paddy is ripe in the field, may be production loss; must harvest at the exact right time.
- Keep the storage area neat and clean—dry in a safe place; keep in a safe place (use a drum).
- Harvest at the right time.
- Harvest with the help of agricultural inputs (for example, tractors).
- *Ensure that pregnant and lactating women do the lighter work.*
- Store seed for the next year.
- Use seed treatment.
- Store the harvest in a clean safe place; must store it in a safe place.
- While winnowing, use pan.

Who usually decides (how to harvest and process)?

- Usually, father and mother make the decision.
- Sometimes the (other) family members also make the decision.

What helps?

- Agricultural inputs (tractor for carrying crop to home, bag, pan, drum, paddy extractor, tarp to cover the paddy from the rain)
- Cultivation inputs during harvesting
- Labor during harvesting
- Storing: drums, bags, neem oil, neem leaves
- Using animals during the process.

What gets in the way?

- Challenge in access to agricultural improvements
- Lack of money
- Mice (eating storage)
- Natural calamities
- Seeds not being treated results in disease
- Pests during storage
- Rain
- Unavailable labor (less labor than needed).

How can the family work together to adopt this practice?

- Family members will make the decision together and cooperate with each other during planning.
- Family members will work based on their time.
- Father and grandfather usually do the hard work.
- Joint decision making in the family for storing.
- Mother-in-law helps in tasks like winnowing.
- Mother will dry the seed.
- Pregnant and lactating women stay away from the cultivation.

FACILITATORS' VERSION Resource 10.1: Discussion Guide Sell and Buy—Selling some production for income and buying nutritious foods

What are some good practices in this stage of the cycle?

- We must sell our crops when the market demand is high (therefore, get a good price).
- We must choose the market where we can sell our crops at a high price.
- *Grade the crop.*
- Keep things neat and clean.
- Grading (separate goods things from bad things).
- Packaging.
- Sell when the demand is high.
- Storing.
- We must choose the marketplace to sell it (i.e., not the middle man, and choose weekly market "haat").
- Information about the market (where to access good seed and where to get a good price for seedling).
- Before selling—grading (sorting) the item that is being sold.
- While transporting, this transport should be safe.

Who usually decides (what to sell and buy)?

Father, mother, and every family member.

What helps?

- bags
- big needle (to sew bags together for storage)
- equipment for selling
- knowledge about the market
- labor for taking crops to market (transport)
- right marketplace (where product can be sold at high price)—i.e., information about the market
- thread
- transportation
- vehicle for transportation.

What gets in the way?

- availability of crops in the market, therefore affecting the price of the crop they are selling
- flood during selling (while transportation to market; therefore, will harm paddy and paddy will be sold at a reduced cost)
- money
- labor
- low market prices
- transportation.

How can the family work together to adopt this practice?

- All the family cooperates.
- During natural calamities, we have to buy nutritious food with our savings.
- The family should raise chickens and ducks.
- Family support (and decision making) while buying and selling.
- Men should do the heavy work and transportation.
- Pregnant and lactating women should do the lighter work.

Session 11. Men's and Women's Roles from Producing Through Selling and Buying

Learning objectives:

By the end of the session, participants will be able to—

- Discuss the agricultural workloads of men and women.
- Discuss how agricultural workloads can be managed to better support nutrition.

Materials:

- Cut out images (on laminated cards, if possible) of women symbol or man symbol (12 each) (see *Training* Aids: Session 11).
- Cut out images (on laminated cards) of "strenuous/heavy" symbol that represents hard physical work (see Training Aids: Session 11).
- Images (on laminated cards) of the following steps of rice production (see *Training Aids: Session 11*):
 - a. land preparation
 - b. nursery preparation
 - c. planting (including broadcasting)
 - d. uprooting
 - e. transplanting
 - f. weeding
 - g. harvesting
 - h. carrying paddy
 - i. threshing
 - j. winnowing
 - k. drying
 - I. storing
 - m. milling
 - n. marketing.
- masking tape
- flipchart papers and stand, plus markers and masking tape.

Advance preparation:

Prepare flip charts for the group work.

Total Duration: 90 minutes

Learning Objective: Discuss agricultural workloads of men and women.

Methodology: Large group discussion, small group work

Suggested time: 55 minutes.

Gender role discussion (15 minutes)

- 1. **Remind:** Yesterday, we discussed how families' daily work supports good nutrition. And, we discussed how nutrition can be affected by the time and labor demands in different seasons. For example, during certain times of the year, mothers may have a lot of work in the fields.
- 2. **Explain:** This session, we will talk about gender roles related to a specific crop—rice.
- 3. During this training, we use examples of specific agricultural practices or crops, but we are not only talking about that crop or practice. These crops or practices are an example for us to talk about how to make any agriculture activity more useful for nutrition. Making nutrition better through agriculture is not just about growing more rice, meat, and vegetables. Even crops that don't seem nutritious can contribute—if they're produced and sold well—and some of that income is used for food, health, and care.
- 4. In this case, we will talk about what roles everyone plays in producing, harvesting, processing, and selling rice. **Explain:** Remember, the particular crop is not the important thing; the labor for each family member is the important point.
- 5. What are the steps in rice production through sales, including value addition and sales of those value-added products? (Prompt, as needed, for the list below.)
 - a. land preparation
 - b. nursery preparation
 - c. planting (including broadcasting)
 - d. uprooting
 - e. transplanting
 - f. weeding
 - g. harvesting
 - h. carrying paddy
 - i. threshing
 - j. winnowing
 - k. drying
 - I. storing
 - m. milling
 - n. marketing.

Small group work (20 minutes)

- 6. **Propose:** Now we will break into three groups. **Give each group five or so photos of each step** (e.g., give group 1 steps a-e, group 2 steps f-j, and group 3 steps k-n). In your groups, talk about what happens during the different steps, and tape them up on the wall. (After a few minutes, hand out 4 "men" and 4 "women" to each group. If they ask for more, you can **give them more).** Ask them to discuss and agree on who does most of the work in each step: use the woman symbol, the man symbol, or both, and tape them on the image of each step. (Steps with possible answers are listed below, but let the participants decide.)
 - a. land preparation—men
 - b. nursery preparation—both
 - c. planting (e.g., broadcasting)—both

- d. uprooting—women
- e. transplanting-women
- f. weeding—women (unless it's mechanical, in which case men)
- g. harvesting—both
- h. carrying paddy—both
- i. threshing—men
- winnowing—women
- k. drying-women
- l. storing—both
- m. milling-men
- n. marketing-men.
- 7. Stay in your groups; for each of these steps, indicate which are strenuous and which are not? We don't only mean lifting heavy items, we mean any kind of hard work. Please put a "strenuous/heavy" symbol on that step as appropriate. (Hand out 3-4 to each group. If they ask for more, you can give them more.)

Sharing group work (15 minutes)

8. Bring the groups back together and do a "gallery walk" to visit each group and ask at each station: What do you notice about the labor loads of the men and the women?

Wrap-up (5 minutes):

- 9. Ask: What have we learned about men's and women's roles in crop production—for example, for rice?
 - a. Families should discuss the plan for completing crop production tasks while protecting their health and well-being.
 - b. To prevent the harmful nutrition of rice production, other family members should take on the strenuous labor of the pregnant or breastfeeding mothers.

Learning Objective: Discuss how agricultural workloads can be managed to better support

nutrition.

Methodology: Small group work, discussion

Suggested time: 35 minutes

Small group discussion: Reducing workload for pregnant and breastfeeding women (20 minutes)

- 1. *Introduce:* Next, we will talk about possible solutions to protect women, especially pregnant women or breastfeeding mothers, from strenuous work related to this example crop.
- 2. It is important to remember that pregnant and breastfeeding mothers need rest. For example, they should lie down for several hours in the middle of the day. What will happen if a pregnant or breastfeeding mother does heavy work? How can strenuous work affect her, and how can if affect her baby? (Prompt, as needed.)
 - She may use up the food she consumes without having enough to nourish her body, for herself or milk production for the baby.
- 3. Now let's break into three small groups. Remember, the session we just did about helping families solve problems in the cycle from producing through selling and buying. We are going to do similar problem solving. Each group, please take 10 minutes to discuss these questions, write the group's best ideas on a flipchart, and then we'll report out on what each group decided.
 - a. For the tasks that take a lot of time or labor, who could do those tasks instead?
 - b. What are some lighter jobs the pregnant or breastfeeding mothers can do instead?
 - c. How else can the family reduce a pregnant woman or breastfeeding mother's workload?

(Try to ensure the groups have the following answers.):

- a. The family can discuss the workload.
- b. The husband and other adults in the house can take on some of a pregnant or breastfeeding mother's heavy work (nursery preparation, planting/broadcasting, transplanting, weeding, carrying crops, collecting small grains, drying, value addition) so she can rest and take care of the baby.
- c. To free up time for some of the mother's heavy work, other adults in the home can change jobs with the breastfeeding woman so she can rest more often and/or have lighter work to do.
- d. To make a good decision about who should do what tasks, the family members should talk together.

Sharing group discussion (10 minutes):

4. **Bring the groups together** and ask one volunteer from each group to present the ideas discussed in their group.

Wrap-up (5 minutes):

- 5. Ask: Does anyone have final thoughts about how to reduce strenuous agricultural work and increase rest for pregnant or breastfeeding women?
- 6. What did you learn from this conversation?
 - a. To prevent harm during rice production, other family members should take on strenuous labor of pregnant or breastfeeding mothers.

b. Families should discuss the plan for completing all rice production tasks, while protecting the health and well-being of pregnant and breastfeeding women.

Session 12. Making Staple Crop Farming Better for Nutrition

Learning objectives:

By the end of the session, participants will be able to—

Think critically about how to make any crop work better for nutrition.

Materials:

- Video, Interculture in Nursery in Odisha (India): Transplanting of Lalata Paddy Oriya Varrat Odisha. The Internet link is below. If the Internet is not available at the training site, the facilitator will need to download the video before the session.
 - https://www.digitalgreen.org/discover/VARRAT/India/Odisha/Odia/Interculture%20in%20Nursery/6/
- Masking tape
- Flipchart paper and stand, plus markers and masking tape
- Computer
- A pico projector to show a video (if not available, show the video on the computer).

Advance preparation:

Prepare the video to show the group.

Total Duration: 25 minutes

Learning Objective: Think critically about how to make any crop work better for nutrition.

Methodology: Video viewing, discussion

Suggested time: 25 minutes

Ideas for making a video more nutrition-sensitive: Activity (20 minutes)

- 1. Introduce: Now let's watch a video. Based on the discussion yesterday and today, after we watch the video, we will talk about nutrition: what is good and what could be improved from what we see happening in the video. (Show video related to rice production in this area.)
- 2. Please tell us, in the video (make notes on flipcharts as they do)—
 - Flipchart 1: What are good things (for nutrition) happening in the video? Use prompts only if needed:
 - They are learning good techniques that can result in better production and more food for consumption or sale; the income can be used for food, health, and care.
 - Flipchart 2: What could be improved (for better nutrition) from what is happening in the video? Use prompts only if needed:
 - For the first half of the video, the trainer is only talking to the man.
 - Mostly women are doing the labor. If these women are pregnant or lactating, it is important that they have time to rest and breastfeed.
 - In the video, they say chemical fertilizer was recently applied. If they cannot

avoid walking in the field or touching the soil, they can try to protect themselves from the chemical and wash their hands and legs very well when coming in from the field.

Wrap-up (5 minutes):

3. Ask: What kinds of things can we show in videos and discuss with communities—even for a crop that does not have a lot of vitamins and minerals—to improve agriculture practices in a way that is better for nutrition?

Session 13. Safe Composting, Healthy Farmer

Learning objectives:

By the end of the session, participants will be able to—

- Describe why composting is good, the steps to safe composting, and which points of composting are important to nutrition.
- Learn to make compost safely.

Materials:

- Video: Compost and Manure in Odisha (India): Amrutpani Internet link is below. If the Internet is not available at the training site, the facilitator will need to download the video before the session. https://www.digitalgreen.org/discover/PRADAN/India/Odisha/Odia/Compost%20and%20Manure/
- Computer
- A pico projector to show a video (if not available, show the video on the computer)
- Training Aids: Session 13: Images representing each step in composting
- Materials/site for composting pit demonstration (items in brackets are substitute materials if an outdoor composting site is not available):
 - o site (Steps for Safer Composting in Resources at the end of this session for specifications)
 - o pits—two to three [large clear square/rectangular plastic containers]
 - shovel [large spoon/soup ladle]
 - sticks/base layer material [beverage straws]
 - o dry brown matter (leaves, bark, twigs, and branches; dry pods/crop residue; straw, sawdust, and wood chips; and other materials, such as shredded cardboard and paper [ripped pieces of cardboard]; (no plants with disease or pesticides, or wood with chemicals)
 - green waste (grass, vegetable scraps, coffee grounds, eggshells, fruits, and other kitchen waste) [ripped pieces of green paper]; (no meat or dairy products (meat and fish bones, oils, and grease)
 - poultry litter and/or cow dung (or similar, but from a non-meat-eating animal) [crumpled pieces of brown paper]
 - o water (at least a few liters) and a small container to distribute it over pile [bottle or bucket to signify water]
 - bamboo/straw/banana leaves/thatching to cover pile [long strips of paper]
 - o long stick [a long marker pen].
- Flipchart papers and stand, plus markers and masking tape.

Advance Preparation:

- Print copies for all participants of **Handout Session 13**: Steps for Safer Composting
- Place the composting images from Training Aids Session 13 on the wall. The order of the images should align with the steps of composting.
- Queue up the video.
- Put the composting demonstration materials outside in a protected space.

Learning Objective: Understand why composting is good, the steps to safe composting, and which points of composting are important to nutrition.

Methodology: Interactive lecture, video showing and discussion

Suggested time: 50 minutes

Discussion about Composting and Benefits of Composting (20 minutes)

- 1. **Remind:** In the previous session, we used rice to talk about gender roles and workloads.
- 2. **Explain:** In this session, we'll use an example of one practice (composting) to talk about how agriculture must be done safely to protect nutrition.
- 3. Ask: Have any of you ever done or been trained in compost preparation and use? (Cofacilitator notes who says "yes," so you can use it in the last part of this session)
- 4. What do you know about the benefits of compost? (**Prompt, as needed.**)
 - Converts household waste into materials to nourish your crops and increase soil and crop quality and quantity. It can also prevent waste from spreading illness.
 - Improves soil structure, letting more air in, improving drainage, and reducing erosion, while keeping soil from drying out by holding water.
 - Can also help replace some of the valuable soil you may dig up to make sunken or raised planting beds.
 - Adds nutrients to the soil that can increase the nutrient value of the crops produced.
 - Makes it easier for plants to take up the nutrients already in the soil. Some of the ingredients have nutrients in them. This can improve yields.
 - When properly decayed, the volume of material reduces, and there is a high concentration of good small organisms.
 - Can reduce crop pest and disease problems, as it makes crops stronger and healthier to resist pest and disease attack.
 - Is a better way to feed plants than using chemical fertilizers, which may cause harm because chemical fertilizers can
 - o get in our lungs and get on our hands, feet, shoes, or clothes that we bring into the house and sicken our families
 - o make plants attractive to pests because they give plants more green growth, but do not improve soil structure or quality
 - waste of money, as these chemicals usually improve yields only in the season when they are applied (whereas compost is not washed away through the soil, so the beneficial effects are longer lasting).
- 5. What do you know about how to make compost? (Prompt to cover main points.):
 - The four ingredients of composting are
 - i. green material (fresh plant material gives energy and nitrogen)
 - ii. brown material (dry plant materials like leaves and straw)
 - iii. water (helps good bacteria to work, but too much will stop the air)
 - iv. oxygen (feeds the good bacteria; if not enough, makes bad smells).
 - Turn the pile (to let oxygen in).
 - Pick a good site (safe distance from the home).

- Use manure carefully.
- Ensure pile is hot enough to decompose.
- Check and use.
- 6. What precautions should be taken to prepare and apply compost?
 - Compost preparation and application requires a lot of strength. It is best if pregnant and lactating women do **not** lift anything heavy and they should be prohibited from helping.
 - When handling food waste and animal feces—both good sources of nitrogen for the compost—gloves or a shovel must be used to avoid contact with waste.
 - Wash hands after working with compost.
 - Ensure that compost that includes animal feces has gotten hot enough to kill bacteria before applying it to the soil.
 - Locate the compost far enough from the house to discourage children from playing in it and to keep away pests.

Discussion of how safe composting contributes to nutrition; watching and discussing a video (30 minutes)

- 7. Let's carefully review the steps in composting. Look at the images on the wall. Each one represents a different stage of composting. We will read through the steps, and you will look for the pieces that are important for nutrition. When you hear a piece that you think has a nutrition reason, please stand up. (Read Resource 13.1: Steps for safer composting, pausing after reading the bold "nutrition" reasons, to see if anyone stands up; acknowledge them for standing, then tell them they can sit).
- 8. Hand each participant a copy of Handout Session 13: Steps for Safer Composting.
- 9. Now, let's review. Please mention specific ways that composting properly can protect farming families. (Try to raise these, using prompts only if needed:)
 - Organic compost is safer than chemicals.
 - Keep the pile away from the house to prevent pests from entering.
 - Do this work on low-labor-demand seasons, so it doesn't compete with other activities that might be needed to generate food and income.
 - Pregnant and breastfeeding mothers should not do this heavy, dirty work.
 - Keep fresh feces out of the field to prevent illnesses.
 - Compost cow dung safely to prevent people from getting sick.
 - After working with manure, wash hands, and clean off shoes and clothes.
 - Compost manure completely to prevent illnesses.
 - Add compost at the right time and harvest crops at the right time to prevent illnesses.
- 10. Now that we understand the basics of composting, let's watch a video of composting practices recommended previously for this area.
- 11. (Show video).
- 12. Please tell us, in the video (make notes on flipcharts as they do):
 - Flipchart 1: What good things (for nutrition) are happening in the video? *Use prompts* only if needed:
 - o The women are learning the practice.
 - Flipchart 2: What could be improved (for nutrition) about what is happening in the video? Use prompts only if needed:
 - o The women could be more actively learning during the video.
 - o It would be best if the hands were protected during the mixing of the manure

and/or washed after the video.

- 13. Now that we took a break with the video, would each of you please tell me one thing you learned from this discussion of composting? (Go around the room and ask everyone to say one thing; try to cover the items below.)
 - Composting done safely can help improve production without using harmful chemicals.
 - Do not allow pregnant and breastfeeding women to do the heavy labor needed to prepare, manage, and apply compost.
 - Try to use tools to avoid contact with waste and always wash hands after working with compost.
 - Compost that includes animal or human feces must have gotten very hot in order to kill bacteria before applying to the soil.
 - Locate compost far away from the house to avoid pests and spreading illness.

Learning Objective: Learn to make compost

Methodology: Participatory demonstration

Suggested time: 30 minutes

Activity Safe Composting Demonstration (30 minutes)

Take everyone outside and discuss (if already completed) or complete the steps in Resource 13.1: Steps for Safer Composting. The facilitator or participant with the most experience should walk everyone through the steps:

- 1. Site (pick a space)
 - If this is already done, discuss using the Resource sheet.
 - If it is not, pick the space.
- 2. Dig (a pit or pits)
 - If this is already done, discuss using the Resource sheet.
 - If it is not already done, use the <u>shovel</u> to make a small pit, about 1 foot by 1 foot, by one foot. Explain the normal size.
 - Discuss the benefits of having more than one pit.
- 3. Add a base layer.
- 4. Add browns (the dry brown matter).
- 5. Add greens (the green homestead waste).
- 6. Safe manure (a special green).
 - Use the dry **poultry litter** and/or **cow dung** for the manure step; mix it with water. **Be sure to discuss the safety issues, such as not using bare hands.**
- 7. Moisten the pile.
 - Sprinkle a liter or two of <u>water</u> and perhaps urine on the pile, do not soak/flood the pile.
- 8. Help it decompose.
 - You will not be able to do this step, but discuss it.
 - **Propose:** Let's pretend it's been 10 days since we started the pile. Test the temperature with a long **stick**. Demonstrate using the **shovel** to turn the pile as in the Resource Sheet. Rebuild the bottom layer before remaking the pile.
- 9. Check and use.
 - You will not be able to do this step, but discuss it.

Resources for this session:

Resource 13.1: Steps for Safer Composting

Step 1: Site

Clear a corner of yard by the fence or near the edge of the farm, not too close to the home or other buildings, in case pests or snakes are attracted to the pile. It should be close to a water source and easy to reach when you throw in household waste, but out of the main traffic flow and away from areas where small children play. It should also be out of direct sunlight; a great location is under trees that provide shade and may benefit from the nutrients generated by the pile.



Step 2: Dig

It is best if this work is not done by pregnant or breastfeeding mothers, who should not do heavy work.

Dig the pit(s) 1 meter in height, 1 meter in width, and 1 meter in length, or a bit larger. Anything larger than 1.5 meters will make it difficult to manage/turn and will not provide adequate air circulation. Making more than one pit will make it easier to turn the compost.



Step 3: Base

Make a 30 centimeter high base of coarse plant material—such as twigs, sticks, or straw—to ensure good air circulation and drainage.



Step 4: Brown

Add a 10 centimeter layer of dry brown organic matter that does not easily compose—for example, maize stalks; fallen leaves, bark, twigs, and branches; sawdust; wood chips; and materials like shredded cardboard and paper. This brown matter doesn't usually have a smell and it may help manage smells. Always put a little on top of any "green" food scraps. Do not use plants treated with pesticides, diseased plants, or plants with seeds (e.g., weeds), which will grow in the pile.



Step 5: Green

Add a 10 centimeter layer of fresh, moist green organic matter that decomposes—for example, small pieces of grass, vegetable scraps, coffee grounds, eggshells, fruits, and kitchen waste. This adds nitrogen, which gives off protein and heats the pile. Generally, these materials can cause a bad smell, especially if not managed properly. Add a small layer of brown to the top to help manage smells, but usually add no more than one layer of brown, then add green at once. Do not discard meat and dairy products in the compost, including meat and fish bones, carnivorous animal manure, or oils and grease; they may attract animals, rodents, and other pests.

One "green" you can use is manure, if you manage it safely. Sometimes we think we should skip a step and let animals or humans defecate in the fields. But, if handled properly, feces from grass, grain, and hay eaters—cows, rabbits, and chickens, etc.—provide an excellent source of nitrogen to the compost pile. Dry all feces before handling, if possible. When collecting or managing manure, household members should use a shovel or other tool, not touch it with their hands, and then wash up carefully, to prevent bringing these materials into the home. To avoid being exposed to pathogens, pregnant or breastfeeding mothers should not do this work.



Step 6: Moisten

You can add a sprinkling of finished compost, healthy topsoil, or ash on the top of your pile. Then, moisten the pile with a bit of urine and some water to aid in composition. Cover the pile with grass or straw to keep it moist, but protected.



Step 7: Decompose

Wait for the pile to settle. After about 10 days, put a large pointed stick into the middle of the pile. After a few days, if the stick is—

a) Too hot to touch: Turn the pile (a very hot pile—the inside of the pile could be over 70 degrees Celsius—may kill the good small organisms, so you need to turn it, which lets air in; you can add a small amount of water to cool it).

To turn the pile—

- o take a shovel or hoe and move the materials
- o then rebuild, with a bottom layer first, adding the existing pile back on top
- \circ be sure to move items from the outside to the center so they can decompose, and let in air.
- b) Warm: Keep the pile as is, as it may be starting to decompose.
- c) Cool: You can still see whole pieces of original materials or if the pile is not smaller, **it needs to decompose more to become safe compost**. To help it decompose more, add water, turn the pile, and add more fresh, moist, green organic matter. Check again in several days.

Until the compost is ready, check the temperature every 10–15 days. When you check the temperature, also turn/rebuild the pile, as above. You will turn/rebuild the pile at least 2 or 3 times before it is ready. Layering and regularly turning the material may make the compost ready in one to two months, otherwise it can take up to four months. Remember: pregnant or breastfeeding mothers should not turn the pile, which is heavy work.



Step 8: Use safely when ready

Compost is ready to use when it has an earthlike brown substance; is crumbly, clean-smelling, and cool; and is about half its original size. Only use the middle of the pile. Add the part of the pile to the bottom of your next pile. Pregnant or breastfeeding mothers should do not do this heavy work or carry compost.

Session 14. Wrap-Up, Summary of Day 2, Q&A, Post-Assessment

Learning objectives:

By the end of the session, participants will be able to—

- Share two new ideas they learned during the training.
- Identify their strengths and weaknesses related to nutrition-sensitive agriculture knowledge.

Materials:

- Rubber ball or ball of rolled-up paper
- Post-assessment and answer sheet (same as pre-assessment)
- Happy, sad, and neutral faces for daily evaluation.

Advance preparation:

- Have post-assessment ready
- Draw happy, sad, neural faces on one piece of paper each and place on bench near the door for day 2 evaluation.

Total duration: 50 minutes

Learning Objective: Discuss one or two things that they learned and/or liked about the day

Methodology: Discussion in large group

Suggested time: 15 minutes

Activity: sharing learning from the training (15 minutes)

- 1. Toss a rubber ball or rolled-up ball of paper to various participants and ask them to name one thing that they learned during the day that they did not know or did not believe before or one thing that they liked about the day.
- 2. Ask: Are there any questions? All facilitators help to respond.
- 3. **Explain:** For the post-assessment, we will use the same system as the pre-assessment on day 1.

Learning Objective: Identify their strengths and weaknesses related to nutrition-sensitive agriculture knowledge

Methodology: Non-written post-assessment (same as pre-assessment)

Time: 30 minutes

Activity non-written post-assessment (30 minutes):

- 1. **Ask:** All participants, please form a circle with your backs facing the center:
- 2. **Explain:** The facilitator will read 20 statements out loud. Without looking at the other participants, each participant will respond to the statement using one hand. With your hand behind your back, use an open palm if you agree, or think the statement is true; use a closed fist if you disagree, or think that the statement is false; and use two pointed fingers in the shape of a "V" if you don't know, or are **unsure**. Remember, it is okay to admit you do not know.

Quickly demonstrate each action a few times to ensure that everyone understands.

- 3. Read the statements from the post-assessment. Other facilitators will record the answers.
- 4. After the post-assessment is finished, read the statements again, and read the correct answer. Ask participants to tell the group why each statement is true or false. After each statement has been read and responded to, ask if there are any final questions.

Post-assessment: What do we know now?

#	Statement	True	False	Don't know
1	A family member's nutrition can affect his or her ability to work and earn income.	Х		
2	Agriculture can help a family pay for food, health, and care.	Х		
3	Increasing agricultural production will definitely improve family nutrition.		Х	
4	A wealthy family can have poor nutrition.	Х		
5	Technologies that reduce agricultural labor can help improve family nutrition.	Х		
6	A mother-in-law harvesting a crop so that her pregnant daughter-in-law can rest is good for family nutrition.	Х		
7	To improve nutrition, families should consider storing some of their harvest to consume or sell later.	Х		
8	Husbands and wives should discuss how they will spend income.	Х		
9	Using income to buy improved seeds will definitely improve family nutrition.		Х	
10	Poor food storage can affect the availability and quality of food.	Х		

#	Statement	True	False	Don't know
11	The quality, quantity, and variety of food are all important for nutrition.	Х		
12	How a family harvests, processes, and stores its food does not matter for nutrition.		Х	
13	Improved compost is ready to use when it is fully decomposed, smells clean, and looks like black soil.	Х		
14	The husband of a breastfeeding woman should do more of the heavy work so his wife can rest.	Х		
15	Time dedicated to agriculture can take away from time caring for children and pregnant women.	Х		
16	Men should make all the decisions about what to grow and what to buy to ensure good family nutrition.		Х	
17	Working together, families can make spending decisions to improve their nutrition.	Х		
18	A husband and wife should decide together how much of its production is sold rather than consumed.	Х		
19	Selling snack foods and then using this income to pay for health care can improve family nutrition.	Х		
20	When a family's harvest becomes moldy, the family should eat that produce rather than sell it.		Х	
21	Penning chickens can be good for family nutrition and for egg production.	Х		
22	Hygiene and sanitation when harvesting and processing crops can improve a family's nutrition.	Х		
23	As an ingredient in improved compost, dry manure is safer to use than wet manure.	Х		

Learning Objectives: Share final thoughts about the training and evaluate day 2.

Methodology: Discussion and participatory evaluation

Time: 5 minutes

Activity Sharing final thoughts and evaluating day 2 (5 minutes)

- 1. **Ask**: Do you have any final thoughts to share?
- 2. **Appreciate:** Thank you for your time and participation, and for the work you are doing to support communities.
- 3. Dismiss participants and ask them to place their marker on the smiley face that expresses their feelings about day 2.

Annex: References

The SPRING team consulted a variety of references while creating this training. To support further learning, references are divided by session. When a reference was used for more than one session, the reference is cited in all the respective sessions.

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Session 3. Seasonal Changes that Affect Nutrition

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Session 4: Daily Activities that Affect Nutrition

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Session 5: Gender Roles, Communication, and Decision-Making

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Session 6: Planning Exercise: Making Spending Decisions Together

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Session 12: Safe Composing, Healthy Farmer

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Optional Energizer

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