

# How can agriculture affect nutrition?

## FACILITATOR GUIDANCE



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### Learning objectives

- Know what nutrition-sensitive agriculture is.
- Be able to identify the three main pathways between agricultural production and nutrition outcomes.
- Understand how women's empowerment strengthens the connection between agriculture and nutrition outcomes.

### Time

This is designed as a 45-minute pre-recorded session appropriate for self-paced learning.

### Facilitated learning in real-time

The session script and PowerPoint slide deck, or the pre-recorded session, can also be used as standardized content for use real-time (synchronous) facilitation.

When delivering this content in a facilitated, real-time mode—either remotely or in-person—plan to double the time (90 minutes) and design the learning session with experiential learning activities to make the session more interactive. You can find ideas for activities in the compendium guidance.

NOTE: this session is rich with examples that can be customized to the specific context. Unlike other sessions in the 101 series, this session does not have pre-designed “think” sections. Any of the slides where examples are given can be led in a brainstorm style of delivery where the group generates the ideas.

### Using the session talking points

REMINDER: The session notes / talking points are meant as a guide and should not be read verbatim. You can—and should—customize the talking points to suit your facilitation style.

You will see notation throughout these notes, including directions to you, the facilitator, that are not meant to be shared with the learners. These are in square brackets [like this]. Key concepts are in **bold text**. Learning activities are in sections with grey background, and are in **blue text**.

## Notes / talking points

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### Slide

### Notes / talking points



In this session we will look at nutrition sensitive agriculture in details  
In this session, we will look more closely at the role that agricultural production plays in improving nutrition and health outcomes, specifically looking at a nutrition-sensitive agriculture approach.

And we will begin to see how gender and nutrition outcomes are closely linked.



Agricultural production can have a great effect on food supply cycle, and therefore on the food system, to improve nutrition. After all, producers grow the foods that consumers in their communities eat daily.

Within agriculture, we have the opportunity to contribute to improved dietary intake and decrease the prevalence of malnutrition. The full potential of agriculture to reduce malnutrition, however, has yet to be fully realized.

This session will focus on what we *do* know (or think we know based on the best available knowledge) about the connections between agricultural production and improved nutrition outcomes.



In previous modules, we discussed what people need to be healthy, as well as the challenges and consequences of malnutrition for communities and individuals, especially women and children.

As a reminder, we talked about nutrition-specific interventions addressing the direct causes of malnutrition, and nutrition-sensitive interventions addressing the underlying causes of malnutrition:

- 1) food insecurity
- 2) household behaviors around feeding and care, and
- 3) Inadequate healthcare
- 4) hygiene, and sanitation

While there are many areas of work that can be nutrition-sensitive, having nutrition-sensitive agricultural institutions is key!

Ultimately, each of these underlying causes goes back to our food-what, how, and why we eat what we do. Looking across our food system, we can identify many places, actors, and aspects of making nearly any food and agriculture related work more nutrition-sensitive, with opportunities to improve nutrition, and thereby individual and community health.

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The framework we use in this session comes from nutrition-sensitive agriculture. It links agricultural production and nutrition through three widely accepted pathways:

1. Food production, which can affect the food available for household consumption as well as food available in local marketplaces.
2. Income generation, which allows households to spend on food and non-food items.
3. Women's empowerment, which affects income, decision-making, caring capacity and practices, and women's energy expenditure.

These pathways are not necessarily linear, and there are many interactions between them.<sup>1</sup>



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Here is a graphic showing the pathways and how they link agricultural production to nutrition. We'll be using this graphic throughout this session and talking about each of these aspects in more detail.



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By understanding these pathways, program implementers can design more effective interventions—deciding how to intervene depending on what the most feasible and movable leverage point might be, and what to measure along the way.

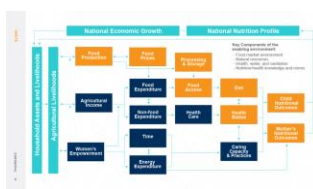
Together with a broader look at the food system, the pathways are another tool to help to identify pathways to change that will improve nutrition outcomes in multiple ways, including through gender equality and women's empowerment.

With that introduction, let's dive further into understanding each of the three pathways, beginning with food production. We discussed food production some in the previous module as one part of the food supply chain.

Ideally, agriculture systems contribute to the local food system and produce sufficient quantity and quality foods to provide the energy and nutrient needs of consumers.

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<sup>1</sup>Herforth, A., and Harris J. (2014).



Food production can affect the type, quantity, and seasonality of food available in households for consumption, as well as influence the availability and prices of diverse food in local markets.

The decisions farmers make about what to produce (both crops and livestock) are affected by many factors, including potential market prices, relative costs and risks, resource and land availability, and individual preferences.

**Production pathway**

- Worldwide, food production is high enough to feed the world's population
- Yet, hunger continues – many people cannot access or afford food
- About 1/3 of all food produced is lost in the food supply chain
- Recovering just half could feed the world



In terms of the potential impact on nutrition outcomes in their communities, it is also important to consider:

- What is the seasonality of foods? Does this affect the availability of nutritious foods? What nutritious foods could be grown off season? Are there ways to extend the growing season for nutritious foods?

- Are the foods produced locally diverse? Will they provide a diverse and nutritious diet for the local community? If not, do they contribute to food security and provide energy needs (e.g., maize and rice)

For most agricultural households, food security is determined by a combination of food produced for consumption, income, and local food availability and prices.

If preferred foods or varieties are not consistently available, affordable, or conveniently accessible in markets, raising or growing them on the farm may be the most efficient way to obtain them.

It is therefore essential to integrate nutrition considerations into the factors that farmers consider when they determine what they grow to consume, what they grow to sell, and what they decide to purchase with their income.

Considerations here include:

- Are households consuming a portion of their own production, particularly if it is nutritious?
- Are locally produced nutritious foods reaching local consumers and supporting their dietary diversity?

Processing crops properly can reduce harvesting losses and food waste and improve the availability of nutrients.

For example, using post-harvest technology such as dryers and grinders, or even harvesting equipment such as threshers and winnowers, can reduce losses and make more of the production available to households.

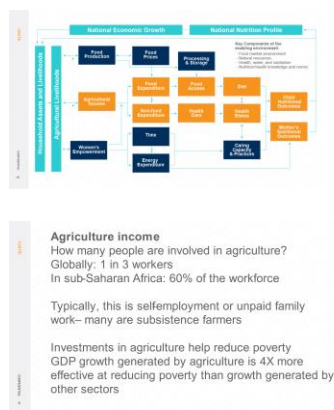
Proper processing and storage of food can extend the shelf life, safety, and nutrient content of foods, making a positive impact on nutrition and health.

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Drying foods or producing cheese can reduce losses due to production seasonality, volume or yield and make nutritious foods available for longer, including beyond their typical seasonality, for both home consumption and for sale in local markets.

Here we consider:

- How might field, post-harvesting, or storage technology decrease losses and increase the availability of nutrients over a longer time span?
- How safe are local production activities? How might food safety practices contribute to nutrition outcomes?
- What agricultural production would benefit most from processing and storage interventions in terms of making adding nutritional value to the food supply chain?



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In addition to producing food for consumption, the income earned from agriculture can contribute to a household’s ability to purchase sufficient quantity and quality of foods, though this is not always the case.

Income generation can include both the income from selling agricultural products, both raw and processed, as well as income earned through working for others within agricultural production (e.g., plowing another farmer’s field, picking crops).

Income generation in and of itself does not necessarily influence nutrition outcomes. Increased income can have a positive, negative, or neutral effect on nutrition, depending on the characteristics of the local food system, the extent to which women and men make decisions about household expenditures, and the knowledge and social norms around nutrition.<sup>2</sup>

If income is used to purchase, prepare, and consume diverse nutrient-rich foods, then it will contribute to nutrition outcomes.

We now know that women are more likely than men to put extra income toward purchasing nutritious foods for their households.

Here we consider:

- Is the income earned from agricultural productivity work contributing to a household’s food security status, or ability to purchase sufficient quality and quantity of foods?
- Do women have input in the decision of how to use money earned from agricultural productivity work? Or control the income themselves?

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<sup>2</sup> Herforth, A., and Harris J. (2014).

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In addition to purchasing food, using income and/or savings to cover the costs of healthcare or childcare can also potentially make the difference between seasonal illness or weight loss for women and children and year-round health for all.

Here we again consider:

- Is the income earned from agricultural productivity work available for supporting the household's overall wellbeing and ability to access preventative health measures like primary care, sanitation, hygiene, and bed nets, or other health costs?
- Do women have input in the decision of how to use money earned from agricultural productivity work? Or control the income themselves?



Women often have many more household responsibilities than men, as we've discussed in the modules on gender. Women often shoulder the full burden of childcare, household maintenance, sourcing water, food and other supplies for the household, and of course also supporting household's agricultural production.

Income generating activities *can* help women improve the stability of their household, and may make more financial resources available for nutrition.

However, without sharing other household responsibilities, more time spent by women generating income could also negatively affect nutrition outcomes by decreasing their ability to breastfeed, source and prepare nutritious meals, maintain a clean environment, and care for children or other household members.

Here we consider:

- How might women's need to generate income be balanced with her agricultural production and household responsibilities so that she is still able to feed herself and her children well, and get sufficient rest for good health?
- What kinds of income generating opportunities are available for women, and which of these have high earning or profit potential?

Finally, when women have an empowered role in production and in decisions about income use, vulnerable household members' access to food, health, and care can be improved.

In the Gender 101 modules, we discuss women's empowerment as the process of change that gives women greater influence, control and freedom of choice and actions of their own lives and future.

In agricultural production, this can look like women using income from agriculture to purchase nutritious foods for their household, contributing to decision-making around household nutrition and health, and reducing their time and energy burdens that make caretaking difficult.

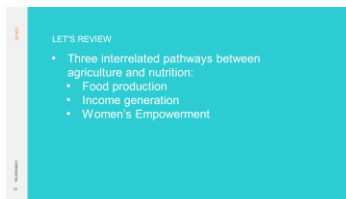


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As you can see the women’s empowerment pathway strengthens both the agricultural production and income generation pathways, leading to greater nutrition outcomes.

Important questions to consider along this pathway are:

- Do female producers have input or control of the income they gain from agricultural activities?
- Are women able to contribute to decisions regarding nutrition and health in the household?
- Do agricultural activities contribute to high energy and time burdens of women, limiting their time for leisure, other livelihood activities, and caretaking?



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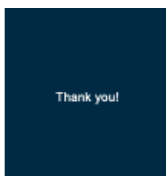
Interrelated pathways between agriculture and nutrition

- food production, which can affect the food available for household consumption as well as food available in local marketplaces
- agricultural income for expenditure on food and non-food items
- women's empowerment, which affects income, decision-making, caring capacity and practices, and women’s energy expenditure.

These are generally accepted as the pathways to nutrition-sensitive agricultural production, and can be used as a framework to integrate nutrition across agricultural input suppliers, farmer/producer organizations, and cascaded community level trainings.

Do these pathways change your thinking at all about the role of agriculture in nutrition? Why or why not?

Where do you hear the potential for agriculture to be more nutrition-sensitive? Which, if any, of the considerations or opportunities mentioned might apply to your work?



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Thank you.

[Add contact info here if desired. Wrap up and set up for what’s next]

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## Module references and further reading

Herforth, A., and Harris J. . 2014. Understanding and Applying Primary Pathways and Principles. Brief #1. Improving Nutrition through Agriculture Technical Brief Series. Arlington, VA: USAID/Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) Project.

The Strengthening Partnerships, Results, and Innovations in Nutrition Globally project (SPRING) has a training resource package on [nutrition-sensitive agriculture](https://www.spring-nutrition.org/publications/series/nutrition-sensitive-agriculture-training-resource-package) which includes a session on [Agriculture-to-Nutrition Pathways](https://www.spring-nutrition.org/publications/training-materials/agriculture-nutrition-pathways) in particular. SPRING has now become the ADVANCING NUTRITION project but many resources remain on the SPRING NUTRITION website.

<https://www.spring-nutrition.org/publications/series/nutrition-sensitive-agriculture-training-resource-package>

<https://www.spring-nutrition.org/publications/training-materials/agriculture-nutrition-pathways>

