



Improving Nutrition through Agriculture and Food Systems

Making agriculture and food systems nutrition-sensitive: key principles

Text-only version

The interactive version of this lesson is available free of charge at <https://elearning.fao.org/>



Some rights reserved. This work is available under a CC BY-NC-SA 3.0 IGO license (<https://creativecommons.org/licenses/by-nc-sa/3.0/igo/>)

© FAO, 2016

This material has been developed by FAO with technical and financial support from the European Union in the context of the EU-FAO Programme entitled “Improved Global Governance for Hunger Reduction” and the World Bank Group’s Agriculture Global Practice. The Gate Foundation also has contributed funding towards the design of the course.

In this lesson

Learning objectives	2
Introduction	2
What does nutrition-sensitive mean?	2
What are nutrition-specific interventions?.....	2
Recommendations for nutrition-sensitive programmes and investments.....	6
Recommendations for nutrition-sensitive policies.....	10
Conclusion.....	11
Summary	12

Learning objectives

By the end of this lesson you will:

- explain the concept of "nutrition-sensitive"; and
- describe key principles to make policies, investments and programmes related to agriculture and food system nutrition-sensitive.

Introduction

Policies, investments and programmes related to agriculture and food systems can play a strong role in preventing and reducing malnutrition. However, this is not always the case. In some instances, agriculture and food system policies and programmes can even have a **negative impact** on nutrition.

To ensure that agriculture and food systems policies and programmes maximize their contribution to nutrition - or, as a minimum, "do no harm" - there is a need to apply a nutrition lens to make them **nutrition-sensitive**.

What does nutrition-sensitive mean?

What do you think "nutrition-sensitive" interventions are?

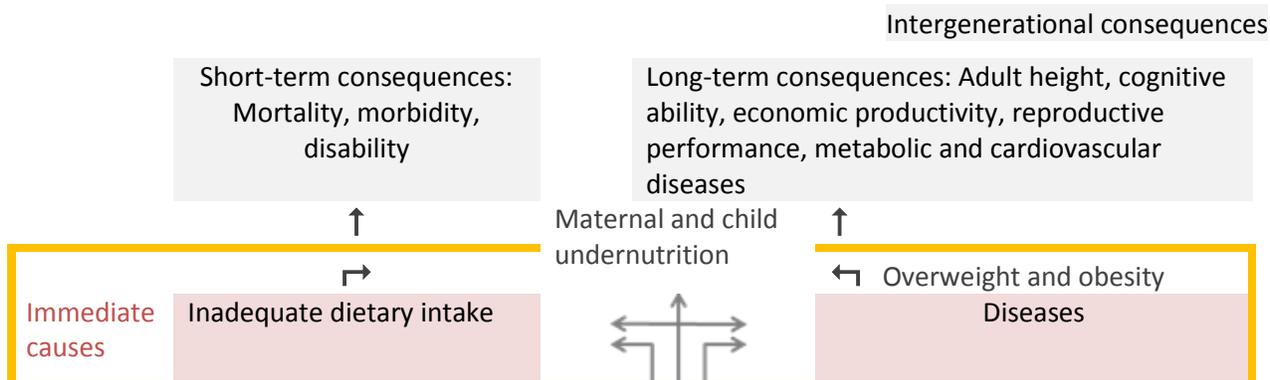
Interventions that help prevent malnutrition by addressing some of its underlying and basic causes. They prevent malnutrition by tackling the underlying and some basic causes of malnutrition at household, community and societal levels.

There are also two other interventions. The first one is specifically designed to treat malnutrition problems. They are also referred to as nutrition-specific, designed to treat **immediate** nutrition problems at the individual level. The other intervention avoids negative impacts on nutrition. Indeed, this is the first, basic requirement for being nutrition-sensitive. But the ultimate goal of your intervention should be to achieve positive impacts!

What are nutrition-specific interventions?

In the last decades, malnutrition has been largely tackled through interventions that address the **immediate causes** of malnutrition at **individual** level, referred to as **nutrition-specific**. However,

these interventions alone **cannot prevent malnutrition** nor address the underlying and basic causes of the problem.



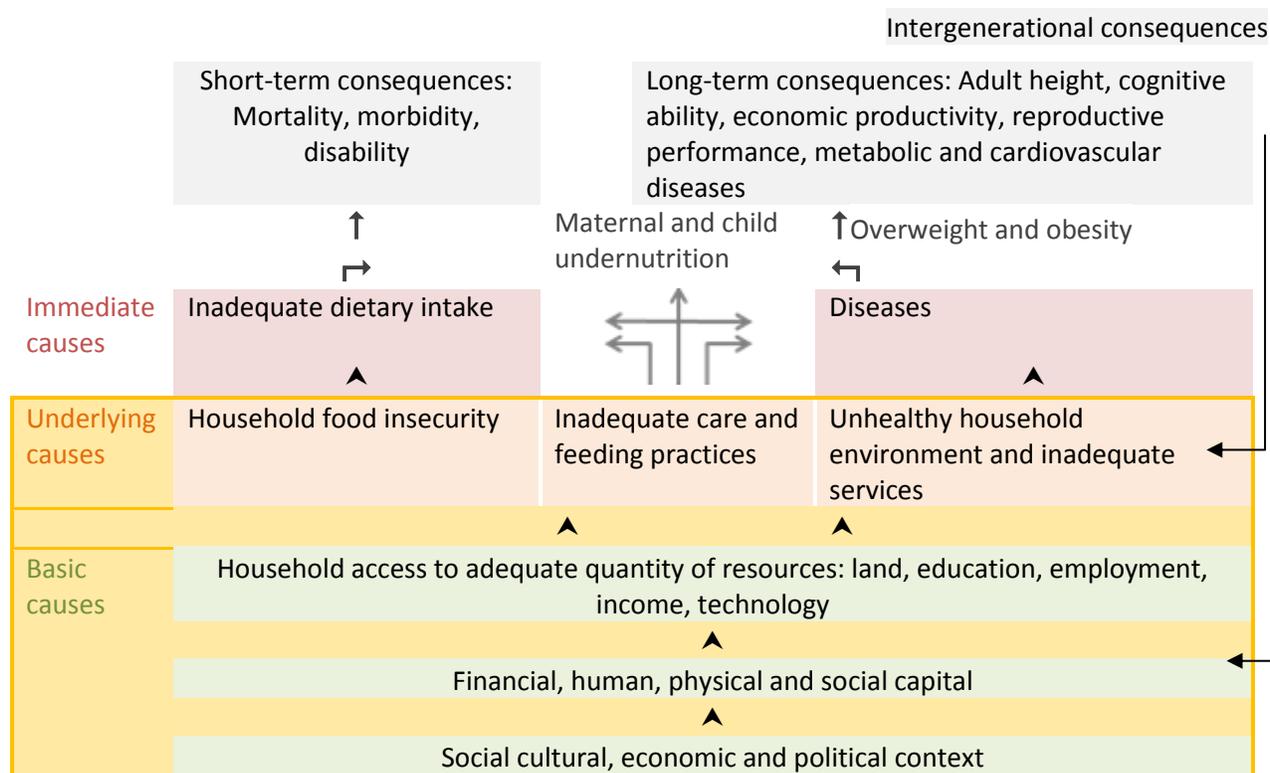
Examples of nutrition-specific interventions

Nutrition-specific interventions are designed primarily to "address the immediate determinants of fetal and child nutrition and development—adequate food and nutrient intake, feeding, caregiving and parenting practices, and low burden of infectious diseases". Examples include:

- Folic acid supplementation
- Multiple micronutrient supplementation (vitamins and minerals)
- Calcium supplementation
- Exclusive breastfeeding
- Complementary feeding
- Iron supplementation
- Vitamin A supplementation (6-59 months)
- Preventive zinc supplementation
- Management of severe acute and moderate acute malnutrition

Source: Lancet 2013, Nutrition-sensitive interventions and programmes: how can they help to accelerate progress in improving maternal and child nutrition?

That's why we need **nutrition-sensitive interventions** that address the **underlying** and some of the **basic causes** of malnutrition at household, community and societal levels. This is where agriculture and food systems, as well as other key sectors, can primarily contribute to foster positive nutritional outcomes.



Conceptual framework for malnutrition

Malnutrition is a **multidimensional** problem. According to the **UNICEF conceptual framework** originally developed for maternal and child undernutrition, three levels of causes need to be considered:

- **immediate** causes which operate at the individual level: inadequate dietary intake and diseases;
- **underlying** causes which operate at the household and community level: household food insecurity, unhealthy environment (namely access to water, sanitation, health services) and inadequate care and feeding practices (including feeding, hygiene, health-seeking behaviour);
- **basic** causes which relate to the structures, processes and phenomena that operate at the level of the society: they include political, socio-economic and cultural factors, such as governance and institutional capacities, gender relations, social solidarity mechanisms, access to education, presence of infrastructure, trade policies and systems, conflicts, environmental factors such as climate change, and the agro-ecological context in which communities live.

Underlying causes are clearly correlated with child stunting, micronutrient deficiencies and wasting. In the new nutrition landscape, the need to update the framework to include a broader set of underlying drivers for **obesity and NCDs** has become clear. The underlying causes are relevant to obesity and NCDs: food insecurity can also be characterised by difficulty to access diverse foods, including fresh fruits, vegetables and animal source foods, leading to poor diet quality; and all underlying causes are also indirect contributors of obesity and NCDs, since stunted children are more likely to develop these diseases in adulthood. But other factors such as the food environment, **physical activity and lifestyles** need to be considered. To this end, an **adaptation of the framework** has been proposed by the Global Nutrition Report: <http://globalnutritionreport.org/the-report/> (p. 62).

Avoiding negative impacts

As previously mentioned, **avoiding negative impacts** on nutrition is the **basic requirement** for being nutrition-sensitive.

Examples of negative impacts of agricultural and food system interventions

- Introduction of new crops with high labor requirements can result in greater workloads for women farmers and reduced time for child care, breastfeeding and food preparation.
- Subsidies targeting few crops can create incentives for mono-cropping and result in loss of agro-biodiversity and dietary diversity.
- Contract farming with horticultural exporters can result in increased incentives to sell the most nutritious foods, diverting them from households and local markets.
- Free distribution of chemical inputs without training can result in overuse of these products and lead to increased health risks, long term soil infertility and loss of agro-biodiversity.
- Trade policies favoring imports of highly processed energy-dense foodstuffs and carbonated drinks can result in low consumer prices and increased incentives for unhealthy diets.
- Encouraging commercial crops managed by men may result in women being marginalized in decision making relative to production and income use, leading to increased risks for household nutrition.
- Irrigation projects without mosquito control can result in increased exposure to vector-borne diseases such as malaria.

How can you ensure agriculture and food system programmes and investments are nutrition-sensitive?

How can you make sure the intervention you design is nutrition-sensitive and generates positive impacts on nutrition?



Conversation between

Marta and Erik

Erik - "In order to maximize nutrition impacts, we should focus on those who are the most vulnerable and really need support such as Nayece, Fatuma and their families. And this should be made clear from the design stage. We need to specify which nutritional impact we want to achieve and how we will measure it."

Marta - "Right. But we must understand the context well if we want to find relevant entry points."

Erik - "Drought and soil infertility are basic causes of malnutrition where Ismail and Nayece's live. Our interventions should help increase and maintain the natural resource base."

Marta - "They also need to access healthy and nutritious foods, such as **fresh fruits, vegetables, nuts, fish and meat**. Production and **marketing** of this food needs to be incentivized **and consumption of healthy foods should be increased through nutrition education**. All these principles also apply to urban **dwellers** like Fatuma. Given the important role of women in nutrition, our programme should also contribute to reducing their workload during pregnancy and lactation. And training to educate men and women about the special nutritional needs of women, children and adolescents girls can help to change attitudes and practices that favor men during mealtime."

Erik - "I think we have gathered some good ideas. Of course, since the nutritional status of these families also depends on other factors such as low income, access to hygiene and healthcare services, etc., we will need to work in collaboration with other sectors."

Recommendations for nutrition-sensitive programmes and investments

10 Key Recommendations have been formulated by FAO following an extensive review of guidance on agriculture programming for nutrition to support the work of programmers and policy makers.

In the recent years, there has been a growing interest in leveraging agriculture to maximize nutrition impacts. The issue has become particularly important for a number of International Financial

Institutions (IFIs) including the World Bank; IFAD; multilateral and bilateral donors including the European Commission, DFID; and humanitarian and development partners (NGOs, UN agencies).

Based on an extensive review of experiences and good practices on agriculture programming for nutrition (www.fao.org/documents/card/en/c/19433b93-b063-5c1e-9363-07506b1cc320/) conducted in 2013 and through consultation with a broad range of partners (CSOs, NGOs, government staff, donors, UN agencies) in particular through the Ag2Nut Community of Practice, FAO has developed a set of guiding principles, the "Key Recommendations for improving nutrition through agriculture and food systems".

1. Incorporate explicit nutrition objectives and indicators into programme design

For example, an agricultural programme that targets smallholder farmers like Ismail and Nayece can explicitly aim at supporting homestead production of diverse foods to improve the household's diet. To measure objective achievements, the programme's monitoring and evaluation system thus has to incorporate indicators that measure household and individual dietary diversity.

2. Assess the context and causes of malnutrition at the local level

As seen with the cases of Ismail and Nayece, and Fatuma, nutrition problems (chronic or acute malnutrition, micronutrient deficiencies, and obesity and chronic disease) differ according to local contexts. Comprehensive context assessment can include food resources, agro-ecology, seasonality of production and income, access to productive resources, market opportunities and infrastructure, gender dynamics, health and care environment, paired with a causal analysis of malnutrition.

3. Target the vulnerable and improve equity

Interventions should be targeted to vulnerable families like Ismail and Nayece's, and Fatuma's. Support to vulnerable groups (smallholders, women, youth, the landless, urban poor, the unemployed) can take, for example, the form of decent employment, social protection and access to resources. Particular attention should also be given to individuals who are nutritionally at-risk, including pregnant and lactating women and children under the age of 2.

4. Collaborate and coordinate with other sectors

Many factors affect the nutritional status of households. Nutrition strategies from national to local governments should integrate interventions across sectors to address concurrently the multiple causes

of malnutrition. This requires cross-sectoral collaboration between relevant stakeholders in agriculture, health, social protection, water and sanitation, education and so on.

5. Improve or maintain the natural resource base

The natural resource base (water, soil, air, climate, biodiversity) is critical to the livelihoods and resilience of vulnerable farmers and to sustainable food security and nutrition for all. Ecosystem resilience can be strengthened for example by practicing agro-ecological measures and protecting biodiversity. For households like Ismail and his family, managing water resources is also crucial to reduce vector-borne illness and to ensure sustainable, safe household water sources.

6. Empower women

Women are the cornerstone of household care and nutrition. Women like Fatuma can be empowered by ensuring access to income opportunities, providing support for child care and social networks, as well as improving access to financial services and social protection schemes. Focusing on food crops grown by women and supporting their voice in household and farming decisions are examples of ways to empower women involved in farming activities like Nayece.

7. Facilitate production diversification, and increase production of nutrient-dense crops, small-scale livestock and fish

Diversified production systems are important to vulnerable producers to enable resilience to climate and price shocks, more diverse food consumption, reduction of seasonal food and income fluctuations. For example, supporting Nayece's family to maintain a drought-adapted kitchen garden for lentils, squash and greens and to keep small milking livestock close to the homestead can improve year-round access to nutritious foods.

8. Improve processing, storage and preservation

Food processing, storage and preservation help retain nutritional value, shelf-life, and food safety, reduce seasonality and post-harvest losses, and make healthy foods convenient to prepare. Small mills and stores for rice, maize or beans can help farmers like Ismail store the harvest for longer, sell later at higher prices, and limit food insecurity of the family in the hungry season. Small scale milling infrastructure can also help save time especially for women by limiting tedious hand processing.

9. Expand markets and market access for vulnerable groups, particularly for marketing nutritious foods

Providing agro-pastoralists like Ismael with regular market price information, paired with investments in value addition and marketing infrastructure can help to incentivize the production and sale of these nutritious foods. Supporting farmer associations can help smallholder farmers to organize for market, with special focus on nutritious, but often more perishable, foods.

10. Incorporate nutrition promotion and education around food and sustainable food systems

Increasing awareness of urban residents like Fatuma on the nutritional value of foods, how to read labels and why it is important to limit salts, sugar and fats in the diet will help to make informed consumption choices. In rural communities like Ismail and Nayece's, nutrition messages such as how to select nutrient-dense crops, and improve recipes with locally available ingredients can be delivered by agricultural extension workers that are working hand in hand with nutritionists.



Nutrition education should be associated with activities to ensure availability and access to nutritious foods.

The following recommendations are not appropriate:

🚫 Promoting intensive agriculture and mono-cropping results in loss of agro-biodiversity and dietary diversity. The recommendation, per contra, is to promote the production of a wider range of nutritious foods. Furthermore, providing farmers with opportunities to diversify their food production contributes to reducing their vulnerability to shocks and exposure to fluctuations in food prices.

🚫 Focusing on commercial farmers who have already access to market. These farmers are not necessarily the most vulnerable nor the most affected by malnutrition as they already have regular sources of income coming from their production and marketing activities. When designing your programme, you must carefully analyze the nutrition situation in order to identify those groups who are the most nutritionally at risk and their nutrition problems in your programme area, in order to select relevant targeting criteria.

🚫 Prioritizing income generating activities (IGA) for men will not necessarily have a positive impact on nutrition. Literature shows that resources and income flows that women control have disproportionately positive impacts on nutrition because they are more likely directed towards food, health and care. So, empowering women through IGA in agriculture and food systems may better impact nutrition.

 **Encouraging free distribution of highly processed foods for children** favors an obesogenic environment; these foods with a high content of fat, free sugars or salt are associated with an increased risk of overweight, obesity and NCDs. Moreover, the WHO recommend that States consider different approaches to reduce marketing of foods high in saturated fats, trans-fatty acids, free sugar or salt to children (WHO, 2010. Set of recommendations on the marketing of foods and non-alcoholic beverages to children).

 **Encouraging use of chemical fertilizers and pesticides.** Chemical inputs can not only bring dangers to health, but their excessive use without appropriate training risks damaging the natural resource base. Improving the natural environment through the use of agro-ecological inputs (i.e. animal manure, composting) can be more appropriate, depending on the agro-ecological situation.

Recommendations for nutrition-sensitive policies

10 Key Recommendations are practical. However, how is it possible to work simultaneously at policy level to ensure a real impact, at scale? Governments should be encouraged to take related policy actions in order to ensure an enabling environment for nutrition.

At **policy level**, several recommendations have been developed to promote policy coherence and synergies across sectors in favour of nutrition.

 **Increase incentives (and decrease disincentives) for availability, access, and consumption of diverse, nutritious and safe foods through environmentally sustainable production, trade, and distribution.**

Food price policies, subsidies and trade policies that favour consumption of staple foods or highly processed foods can have counterproductive effects on nutrition and may require reform. Meanwhile, positive incentives for horticulture, legumes, small livestock and fish - foods which are relatively unavailable and expensive, but nutrient-rich - can increase their utilization.

 **Monitor dietary consumption and access to safe, diverse, and nutritious foods.**

It is important to assess the impacts of food and agriculture policies on food environments and diets in order to ensure they contribute to positive nutrition outcomes. It requires collecting and analyzing data such as prices of diverse foods and food consumption. It also means building capacity to do impact assessments.

 **Include measures that protect and empower the poor and women.**

Policy actions to support improve nutrition for the poor and women include, among others:

- safety nets that allow people to access nutritious food during shocks or seasonal times when income is low;
- land reform and land rights to provide equitable access to productive resources, especially for women;
- local procurement schemes from small-scale farmers to increase market access for vulnerable producers.

 **Develop capacity** in human resources and institutions to improve nutrition through the food and agriculture sector, supported with adequate financing. Policy change should be supported by adequate nutrition knowledge and capacities at all levels. This could be achieved by:

- recruiting nutritionists in ministerial structures;
- strengthening nutrition curricula in formal education; and
- providing basic training on nutrition and gender for units in charge of planning and implementation (extension workers, farmer field schools, mother support groups and schools).

 **Support multi-sectoral strategies to improve nutrition** within national, regional, and local government structures.

Malnutrition is a multifaceted challenge that requires a multisectoral solution. Policy and programme implementation needs to be supported by effective coordination for nutrition to enhance alignment and deliver at scale. Opportunities for cross-sectoral dialogue between health, agriculture, rural development, social affairs, education, etc. can be maximized through the creation of joint institutional structures and coordination mechanisms at national, regional and local levels.

Conclusion

The Key Recommendations help maximize the nutrition outcomes of agriculture and food system policies, investments and programmes. However, there is no one-size-fits-all manner of applying them and the way you will use them will largely depend on the context where you work.

In the next lesson “**Making agriculture and food systems nutrition-sensitive: key interventions**”, we will see how to put the recommendations into practice by looking at several possible "nutrition-sensitive" interventions using real case studies!

Summary

Nutrition-specific interventions alone **cannot prevent malnutrition** nor address the underlying and basic causes of malnutrition.

That's why we also need nutrition-sensitive interventions that address underlying and basic causes of malnutrition.

Being **nutrition-sensitive** means explicitly incorporating nutrition objectives, concerns and considerations to enable communities to achieve food and nutrition security. It also implies **avoiding negative impacts** on nutrition.

Based on the experience of several institutions and organizations, a set of **Key Recommendations** has been developed to promote nutrition-sensitive agriculture and food system policies, investments and programmes.