Key concepts and main issues for improving nutrition through Food Security and agriculture
Nutrition-sensitive interventions address the underlying causes of malnutrition

Nutrition-specific interventions address the immediate causes of malnutrition

- Short-term consequences: Mortality, morbidity, disability
- Long-term consequences: Adult height, cognitive ability, economic productivity, reproductive performance, metabolic and cardiovascular diseases

Basic causes

Financial, human, physical and social capital

Social cultural, economic and political context

Intergenerational consequences

Maternal and child undernutrition

Overweight and obesity
How can agriculture contribute?

- Production, processing and marketing of nutritious foods
  - Food availability (year round)
  - Income
  - Access (year round)
  - Utilization
- Natural and human resource management

Intergenerational consequences:
- Long-term consequences: Adult height, functionality, economic productivity, reproductive performance, metabolic and cardiovascular diseases
- Maternal and child undernutrition

Reduce Agriculture related diseases
- Nutrition education
- Labor saving technology
- Income used for health and hygiene

Short-term consequences: Mortality, morbidity, disability

Inadequate dietary intake
- Household food insecurity
- Inadequate care and feeding practices
- Unhealthy household environment and inadequate health services

Household access to adequate quantity and quality of resources: land, education, employment, income, technology

Financial, human, physical and social capital

Social cultural, economic and political context

Source: UNICEF
How does it work?

Pathways from agriculture to nutrition
Pathways from agriculture to nutrition

The production pathway

Agricultural /FS programme

Agricultural / Food production

Household food access & consumption

Adequate diet:
• Energy & Protein
• Micronutrients

Child nutrition outcomes

Women’s nutrition outcomes

Adapted from: Stuart Gillespie, Jody Harris, and Suneetha Kadiyala, 2012
Pathways from agriculture to nutrition

The income pathway

Agricultural /FS programme

Agricultural / Food production

Income (agricultural and non-agricultural)

Food expenditure

Household food access & consumption

Adequate diet:
- Energy & Protein
- Micronutrients

Health status

Health services

Non-food expenditure

Child nutrition outcomes

Women’s nutrition outcomes

Income (agricultural and non-agricultural)

Food expenditure

Household food access & consumption

Adequate diet:
- Energy & Protein
- Micronutrients

Health status

Health services

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Child nutrition outcomes

Women’s nutrition outcomes

Adapted from: Stuart Gillespie, Jody Harris, and Sunetha Kadiyala, 2012
Pathways from agriculture to nutrition
The women’s empowerment pathway

Adapted from: Stuart Gillespie, Jody Harris, and Suneetha Kadiyala, 2012
Pathways from agriculture to nutrition

Other factors

Agricultural /FS programme

Access to land, water, livestock, labour, technology, knowledge

Storage, preservation,

Market access

Food availability

Adequate diet:
• Energy & Protein
• Micronutrients

Child nutrition outcomes

Health status

Women’s nutrition outcomes

Household assets and livelihoods

Household food access & consumption

Health services

Caring practices

Female energy expenditure

Agricultural / Food production

Income (agricultural and non-agricultural)

Commercial viability of inc. generation activities

Non-food expenditure

Other expenses Debt

Women’s time allocation

Women employment / Control of productive asset and resources

Access to land, water, livestock, labour, technology, knowledge

Nutrition knowledge

Agricultural / FS programme

Food expenditure

Income (agricultural and non-agricultural)

Commercial viability of inc. generation activities

Non-food expenditure

Other expenses Debt

Women’s time allocation

Women employment / Control of productive asset and resources

Access to land, water, livestock, labour, technology, knowledge

Nutrition knowledge

Agricultural / FS programme

Food expenditure

Income (agricultural and non-agricultural)

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Nutrition knowledge

Adapted from: Stuart Gillespie, Jody Harris, and Suneetha Kadiyala, 2012
Key recommendations for improving nutrition through agriculture and food systems

Food systems provide for all people’s nutritional needs, while at the same time contributing to economic growth. The food and agriculture sector has the primary role in fulfilling people well by increasing availability, affordability, and consumption of diverse, safe, nutritious foods and diets aligned with dietary recommendations and environmental sustainability. Applying these principles helps strengthen resilience and contributes to sustainable development.

Agricultural programmes and investments can strengthen impact on nutrition if they:

1. Incorporate explicit nutrition objectives and indicators into their design, and track and disseminate potential impacts, while seeking synergies with economic, social and environmental objectives.

2. Address the context at the local level, to design appropriate activities to address the types and causes of malnutrition, including chronic or acute undernutrition, vitamin and mineral deficiencies, and obesity and chronic diseases. Context assessments can include potential food sources, age-sexology, seasonality of production and income, access to productive resources such as land, market opportunities and institutions, gender dynamics, and value opportunities for collaboration with other sectors or programmes, and local priorities.

3. Target the vulnerable and improve equity through participation, access to resources, and decent employment. Vulnerable groups include smallholders, women, youth, the landless, urban dwellers, and the unemployed.

4. Collaborate and coordinate with other sectors (food, environment, social protection, labor, water and sanitation, education, energy, and programs) through joint strategies with common goals, to address concurrently the multiple underlying causes of malnutrition.

5. Maintain or improve the natural resource base (water, soil, climate, biodiversity) critical to the livelihoods and resilience of vulnerable farmers and to sustainable food and nutrition security for all. Manage water resources in particular to reduce water-borne illness and to ensure sustainable, clean, and domestic water sources.

6. Empower women by ensuring access to productive resources, income opportunities, extension services and information, credit, labor, and time-saving technologies (including energy and water services), and supporting their roles in household and farming decision. Expanding opportunities to earn and learn should be compatible with safe pregnancy and young child feeding.

7. Facilitate production diversification, and increase production of nutrient-dense crops and small-scale livestock (for example, horticultural products, legumes, livestock, and fish) at a small scale, underutilized crops, and indigenous crops. Diversified production systems are important to vulnerable producers to enhance resilience to climate and price shocks, increase food diversity, reduction of seasonal food and income fluctuations, and greater and more gender-equitable income generation.

8. Improve processing, storage and preservation to retain nutritional value, shelf life, and food safety, to reduce seasonality of food insecurity and post-harvest losses, and to make healthy foods convenient to prepare.

9. Expand markets and market access for vulnerable groups, particularly for marketing nutritious foods or products vulnerable groups have comparative advantage in producing. This can include innovative programs (such as marketing-based nutrition credits) to increase access to information, and farmer associations.

10. Incorporate nutrition education and activities around food and consumer food systems that build on existing local knowledge, attitudes, and practices. Nutrition knowledge can enhance the impact of production and increase in rural households, especially important for women and young children, and can increase demand for nutritious foods in the general population.
Agriculture programmes can strengthen impact on nutrition if they:

1. Incorporate explicit nutrition objectives and indicators and track and mitigate potential harms
2. Assess the **context** and **causes** of **malnutrition** at the local level
3. Target the **vulnerable** and improve equity
4. Collaborate and coordinate with other sectors and programmes
5. Improve / maintain the **natural resource base**
6. Empower women
7. Facilitate production diversification, and increase production of nutrient dense crops and small scale livestock.
8. Improve processing, storage and preservation.
9. Expand markets and market access for vulnerable groups, particularly for marketing nutritious foods
10. Incorporate nutrition promotion and education around food and sustainable food systems.
AVAILABLE TOOLS AND MATERIALS
Key recommendations for improving nutrition through agriculture and food systems
www.fao.org/3/a-i4922e.pdf

Designing nutrition-sensitive agriculture Investments :
Checklist and guidance for programme formulation
This document is designed to serve as a tool to guide programme planners who are aiming to apply the Key recommendations for improving Nutrition through Agriculture and Food Systems in the design of agricultural investments. It is structured around the programming cycle (situation appraisal, programme design, and programme review) and includes key questions, accompanied by tips and references
Compendium of Nutrition-relevant Indicators for Agriculture Investments
This document describes a range of indicators, which can be used to monitor and evaluate the nutrition-related impacts of investments in agriculture and rural development. It provides guidance on what each indicator measures and key features of data collection, as well as references to relevant manuals.

Compendium of Food and Agriculture Actions for Nutrition
This compendium provides a list of interventions related to crop production, horticulture, livestock, fisheries, food processing, forestry and nutrition promotion, which can contribute to improving nutrition as part of a multi-sectoral strategy.
A set of 5 online Modules on Nutrition and Food Systems:

**Module 1: Nutrition, Food Security and Livelihoods: Basic concepts**
Introduces basic concepts of food, nutrition, malnutrition, food security and livelihoods which are prerequisites for the subsequent modules.

**Module 2: Improving Nutrition through agriculture and food systems**
Introduces basic concepts on and linkages between nutrition and food Systems, including the key recommendations for making agriculture and food systems more nutrition-sensitive.

**Coming in May 2016**

**To be released in 2017**

Using a scenario-based learning approach, the **modules 3, 4 and 5** will guide the user through a nutrition-sensitive programming cycle:
- **Modules 3 and 4** will provide guidance for situation and institutional analysis
- **Module 5** will address key features of design, implementation, monitoring of nutrition-sensitive policies and programmes.
Guidelines: Agreeing on causes of malnutrition for joint action
www.fao.org/3/a-i3516e.pdf
These guidelines are designed to assist professionals involved in development, emergency, and resilience building programmes who seek to promote integrated planning across sectors for sustainable improvements in nutrition.

E-learning module: Agreeing on causes of malnutrition for joint action
This interactive online course guides you through the simulation of a workshop process in the fictional country of Namambar. You will learn how to use a methodology based on malnutrition problem-and-solution trees to support joint planning for combating food insecurity and malnutrition.
These documents summarize the thinking on nutrition and resilience from a food and agriculture perspective, discuss the linkages between the two agendas and draw recommendations from a conceptual, strategic and operational point of view.

This document presents how various social protection instruments can address the underlying causes of malnutrition, together with recommendations for maximizing the nutritional impact of social protection policies and programmes.
For more information

www.fao.org/nutrition/policies-programmes/