Food Systems for Better Nutrition: opportunities in Latin America and the Caribbean

A perspective and experiences from FAO

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The State of Food and Agriculture

Food systems for better nutrition

Highlights

www.fao.org/publications/sofa
Key take aways:

Good nutrition depends on food systems

- Malnutrition costs money and lives
- Good nutrition depends on healthy diets, which depend on healthy food systems
- Education, health, sanitation, and other sectors must contribute, but food systems are central
- Food systems can support better nutrition with appropriate policies, incentives, and governance
Despite progress hunger remains widespread in many regions ...
...while overweight and obesity prevalences are rising rapidly

<table>
<thead>
<tr>
<th>Year</th>
<th>Region</th>
<th>Overweight</th>
<th>Obesity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>World</td>
<td></td>
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<tr>
<td>2008</td>
<td>Northern America</td>
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<td></td>
<td>Developing regions</td>
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<tr>
<td>1980</td>
<td>Africa</td>
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<td>2008</td>
<td>Latin America and the Caribbean</td>
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<td>1980</td>
<td>Asia</td>
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<td>2008</td>
<td>Oceania</td>
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<tr>
<td>1980</td>
<td>Asia and Oceania</td>
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<tr>
<td>2008</td>
<td>Europe</td>
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Notes: Overweight, excluding obesity; Obesity
Overlapping burdens of malnutrition

- Child stunting: 16 countries
- Child micronutrient deficiencies: 16 countries
- Adult obesity: 40 countries
- 66 countries

No significant malnutrition problems: 15 countries
# Burden of Malnutrition by Country

## Category A: Child Stunting

**Africa:** Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Comoros, Congo, Democratic Republic of the Congo, Côte d’Ivoire, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, Sudan,* Togo, United Republic of Tanzania, Uganda, Zambia, Zimbabwe

**Asia:** Afghanistan, Bangladesh, Bhutan, Cambodia, India, Indonesia, Democratic People’s Republic of Korea, Lao People’s Democratic Republic, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Tajikistan, Turkmenistan, Timor-Leste, Viet Nam, Yemen

**Latin America and the Caribbean:** Bolivia (Plurinational State of), Haiti, Honduras

**Africa:** Egypt, Libya, South Africa, Swaziland

**Asia:** Armenia, Azerbaijan, Iraq, Syrian Arab Republic

**Europe:** Albania

**Latin America and the Caribbean:** Belize, Ecuador, El Salvador, Guatemala

**Oceania:** Nauru, Solomon Islands, Vanuatu

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## Category B: Child Micronutrient Deficiencies

**Africa:** Algeria, Morocco

**Asia:** Brunei Darussalam, China, Kyrgyzstan, Malaysia, Sri Lanka, Thailand, Uzbekistan

**Europe:** Estonia, Romania

**Latin America and the Caribbean:** Brazil, Colombia, Guyana, Paraguay, Peru

**Africa:** Tunisia

**Asia:** Georgia, Iran (Islamic Rep. of), Jordan, Kazakhstan, Kuwait, Lebanon, Oman, Saudi Arabia, Turkey, United Arab Emirates

**Europe:** Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Latvia, Lithuania, The former Yugoslav Republic of Macedonia, Montenegro, Poland, Republic of Moldova, Russian Federation, Serbia, Slovakia, Ukraine

**Latin America and the Caribbean:** Argentina, Chile, Costa Rica, Cuba, Dominican Republic, Jamaica, Mexico, Panama, Suriname, Trinidad and Tobago, Uruguay, Venezuela (Bolivarian Rep. of)

**Oceania:** Samoa, Tuvalu

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## Category C: Adult Obesity

**Africa:** Mauritius

**Asia:** Japan, Republic of Korea, Singapore

**Europe:** Austria, Belgium, Denmark, Finland, France, Greece, Italy, Netherlands, Norway, Sweden, Switzerland

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## Category D: No Malnutrition Problem of Public Health Significance

**Africa:** Mauritius

**Asia:** Japan, Republic of Korea, Singapore

**Europe:** Austria, Belgium, Denmark, Finland, France, Greece, Italy, Netherlands, Norway, Sweden, Switzerland
The nutrition transition: the pattern of malnutrition changes with diets and lifestyles
Food and Agriculture Organization of the United Nations

How can agriculture contribute?

Good nutrition and health

Adequate dietary intake

Household access to safe and diverse FOOD

Adequate maternal & child CARE practices

Access to safe water, sanitation & adequate HEALTH services

Quantity and quality of actual RESOURCES human, economic & organisational and the way they are controlled

Potential resources: environment, technology, people

Food safety and safe agriculture practices

Nutrition education

Labor saving technology

Income used for health and hygiene

Production, processing, storage and marketing of nutritious foods

- Food availability - (year round)
- Income
- Access (year round)
- Utilization

Biodiversity

Biofortification

Fortification

Natural and human resource management
Agricultural production for better nutrition

- Productivity growth is necessary
- Policy could promote better nutrition
- Gender roles are fundamental
- Farming for dietary diversity
- Getting more nutrients into staples
Making supply chains work for better nutrition

- Can supply chains deliver more for less?
- Losses and waste raise prices and squander resources
- Getting more nutritional content into foods
- Packaged and processed foods can improve diets but can also provide too much energy
Empowering consumers

- Helping the vulnerable to obtain adequate and balanced food
- Can subsidies or tax improve nutrition
- Nutrition education works, but is not enough
## Food system interventions to improve nutrition outcomes

### Policy environment and development priorities

<table>
<thead>
<tr>
<th>Food system elements</th>
<th>Nutrition opportunities</th>
<th>Policy tools</th>
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</table>
| **Production**       | • Sustainable intensification of production  
                      • Nutrition-promoting farming systems, agronomic practices, and crops  
                      • Stability for food security and nutrition  
                      • Nutrition education  
                      • Nutrient preserving on-farm storage | • Food and agricultural policies to promote availability, affordability, diversity and quality  
                                                                              • Nutrition-oriented agricultural research on crops, livestock and production systems  
                                                                              • Promotion of school and home gardens |
| **Post-harvest supply chain** | • Nutrient-preserving processing, packaging, transport and storage  
                             • Reduced waste and increased technical and economic efficiency  
                             • Food fortification  
                             • Reformulation for better nutrition (e.g., elimination of trans fats)  
                             • Food safety | • Regulation and taxation to promote efficiency, safety, quality, diversity  
                                                                              • Research and promotion of innovation in product formulation, processing and transport |
| **Consumers**        | • Nutrition information and health claims  
                      • Product labeling  
                      • Consumer education  
                      • Social protection for food security and nutrition | • Food assistance programmes  
                                                                              • Food price incentives  
                                                                              • Nutrition regulations  
                                                                              • Nutrition education and information campaigns |

### Available, accessible, diverse, nutritious foods

### Health, food safety, education, sanitation and infrastructure
Food systems can only be nutrition-sensitive if...

- They are gender-sensitive
  - Gender roles are directly relevant for child and maternal malnutrition
- And environmentally sustainable
  - Both on the production and consumption side
Policy recommendations

- Policies, investment and research to increase productivity
- Cut food losses and waste
- Improve the nutritional performance of supply chains
- Help consumers make good dietary choices for better nutrition.
- Improve nutritional quality of foods through fortification and reformulation.
- Ensure that social safety nets support good nutrition.
- Make food systems more responsive to the needs of mothers and young children.
Experiences from FAO

Resources and opportunities in Latin American and the Caribbean
FAO Nutrition Division

Enhancing nutritional impact through:

Scientific advice:
- Food composition
- Dietary requirements

Regulations:
- Food standards (Codex)
- Food labeling

Policy, programming and investment planning
- Targeting;
- Participatory approaches; Joint planning; etc.

Nutrition education
- FBDG’s; family nutrition and complementary feeding; school-based approaches

Household food security:
- Home & school gardens, small-scale fisheries and livestock; food processing

Assessment and M&E
- Indicators of dietary quality & household food security

Sustainable production and intensification:
- crops, horticulture, fisheries, livestock, forestry

Natural Resource management: soils, land tenure, water, biodiversity

Gender

Social Protection
LAC: A rapid dietary transition

Associated Social, cultural and environmental Changes

Changes in the share of food groups in urban household food acquisitions. Brazil: 1996-2009

Minimally processed foods

Ultra-processed products

Processed culinary ingredients

Empowering and protecting consumers

- Food-based dietary guidelines
- School-based approaches
- Linking agriculture to social protection programs
- Public policies

Associated to the protection of biodiversity and local cultures
Food-based dietary guidelines

- A tool for nutrition education and behavior change to be used by health providers, teachers, journalists, extension agents and others working directly with the public.
- Use language and symbols that the public can easily understand, and focus on common foods, portion sizes, and behaviors.
- Many Latin American Countries have them
- But need to be updated and are not sufficiently used
- Potential for greater use as a support to multi-sectoral nutrition strategies?
  - Nutrition education and consumer awareness
  - Incentives for agriculture production and marketing
  - Policy guidance for regulations

School-based approaches

- Children need healthy food + are consumer / parents of tomorrow
- More open to new practices & can influence family choices
  - Nutrition education in school curricula
  - School gardens for garden-based learning
  - School meal regulations
  - School meals supplied from local agriculture, including promotion of local biodiversity
A Latin American Network for Nutrition Education: ICEAN

- Meeting in 2011 of professionals working on nutrition education in Latin America
- Creation of a network for sharing experiences and resources: ICEAN
- Website under development
Private and public roles in creating incentives for healthy diets

- **Private sector:**
  - Production, processing of healthy foods
  - Combining *convenience* and health

- **Public sector:**
  - Regulations on nutrient content of food and marketing?
  - Food labeling
  - Tax and subsidies?
  - Voluntary guidelines?
Nutrition: putting people at the heart of our work

Thank you
Back-up slides
Synthesis of Guiding Principles on Agriculture Programming for Nutrition

By Anna Herforth, FAO consultant
Ag2Nut Community of Practice
Guiding Principles for Improving Nutrition through Agriculture

1. Incorporate explicit nutrition objectives and indicators into their design, and track and mitigate potential harms.

2. **Assess the context** at the local level, to design appropriate activities to address the types and causes of malnutrition.

3. **Target the vulnerable and improve equity** through participation, access to resources and decent employment.

4. **Collaborate with other sectors** (health, environment, social protection, labor, water and sanitation, education, energy) and programmes.

5. **Maintain or improve the natural resource base**. Manage water resources in particular to reduce vector-borne illness and to ensure sustainable, safe household water sources.

6. **Empower women**.

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

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

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

10. **Incorporate nutrition promotion and education** that builds on existing local knowledge, attitudes and practices.
Agriculture and Food Policy Support to Nutrition

1. Increase incentives (and decrease disincentives) for sustainable production, distribution, and consumption of diverse, nutritious and safe foods.
   • Focus on horticulture, legumes, and small-scale livestock and fish – foods which are relatively unavailable and expensive, but nutrient-rich.

2. Monitor dietary consumption and access to diverse, nutritious, and safe foods.
   • Food prices of diverse foods, dietary consumption indicators

3. Build capacity in human resources and institutions to improve nutrition through the food and agriculture sector, supported with adequate financing.

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

5. Include measures that protect and empower the poor and women.
   • Safety nets, Land tenure rights; Equitable access to productive resources