Nutrition security: a vital element of food security and sustainable development

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Food and nutrition security

When all people at all times have physical, social and economic access to food, which is consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services and care, allowing for a healthy and active life.

(Wüstefeld 2013)
What is malnutrition?

Undernutrition
- Stunting
- Wasting
- Underweight
- Micronutrient deficiencies

Overnutrition
- Overweight
- Obesity

Malnutrition

Good nutrition requires good food, good care and good health!
What does malnutrition look like in numbers?

200 million children under the age of 5 are stunted or wasted due to undernutrition.

1.4 billion people are overweight or obese.

2 billion people suffer physical and cognitive effects resulting from a lack of essential vitamins and minerals in their diets.

These nutrition challenges pose a direct threat to the aspirations of the next generation.

Glopan 2014
Global child nutrition trends: the double burden transition

FIGURE 10 Contrastting global trends in child stunting and overweight
Percentage and number of children under age 5 who are moderately or severely stunted and who are overweight

Note: The lines (with 95 per cent confidence intervals) reflect the percentages of children and the bars reflect the numbers of children.
Where are we going?

Daniel Lieberman
The agriculture, human nutrition & health nexus

• More **food** ≠ better nutrition
• More **crops** ≠ less stunting
• **Stunting** - long-term cumulative impacts
  - **Children** – health, physical and cognitive development capacity
  - **Adults** - productivity losses
• **11% of gross national product** in Africa and Asia lost annually due to malnutrition
Where we are:
commodity-based, processed food value chain
Where we want to be:
nutrition- and gender-sensitive value chains

Inputs & Services
- Healthy soil with balanced trace minerals; fair payment of workers

Production
- According to dietary and population requirements with equitable sale price

Processing & storage
- Maximize local utilization according to seasonal availability; limited storage

Marketing Retailing
- Detailed and accurate labelling; affordable prices

Consumption
- According to age, gender and reproductive status

Waste
- Composting and nutrient recycling

Source: Alders, Nunn, Bagnol, Cribb, Kock & Rushton – Fixing broken food systems [under preparation]
Alders, R., Aongola, A., Bagnol, B., de Bruyn, J., Kimboka, S., Kock, R., Li, M., Maulaga, W., McConchie, R., Mor, S., Msami, H., Mulenga, F., Mwala, M., Mwale, S., Rushton, J., Simpson, J., Victor, R., Yongolo, C. and Young, M. 2014. Using a One Health approach to promote food and nutrition security in Tanzania and Zambia. Planet@Risk (Special Issue on One Health) 2(3):187-190.


