



Scaling Up Nutrition: Windows of Opportunity

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INTERNATIONAL FOOD POLICY
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Key messages

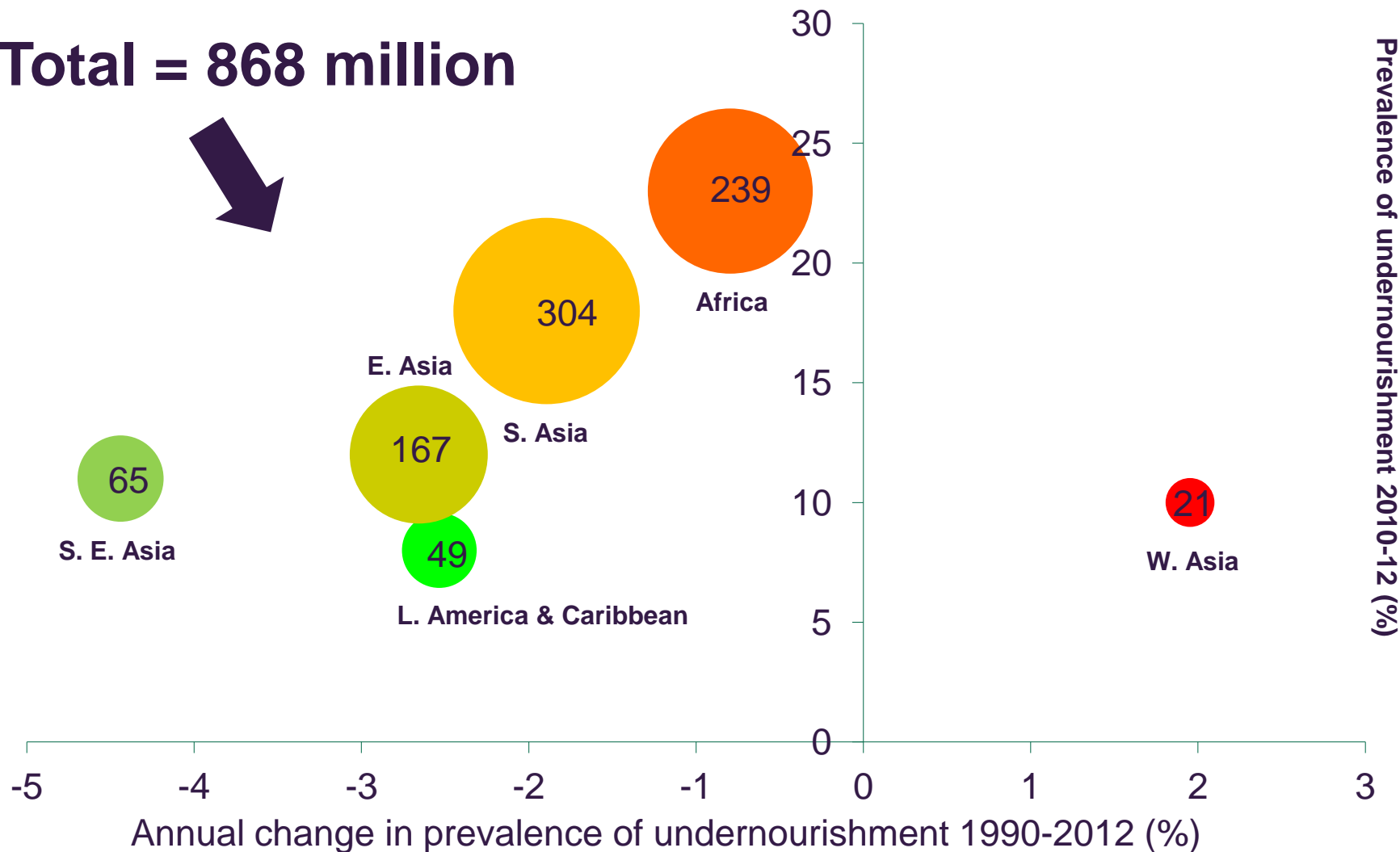


- The triple burden of malnutrition is increasingly a big challenge
- It is an opportune time now, but we must seize it:
 - Donor community, national governments, the private sector, the civil society and agricultural research community are all committed
- Exploring opportunities to link food and agricultural systems to improving nutrition

Undernourishment remains prevalent



Total = 868 million

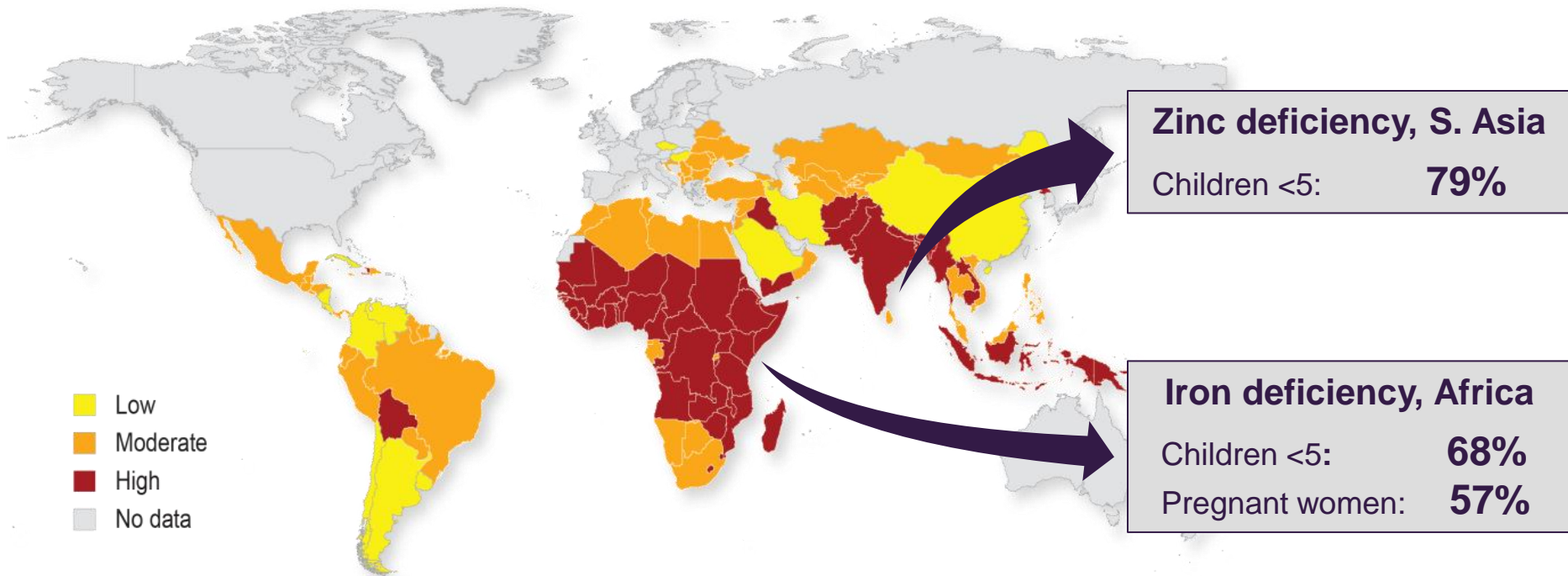


Source: Data from FAO 2012

Micronutrient deficiencies are pervasive



Prevalence of micronutrient deficiencies



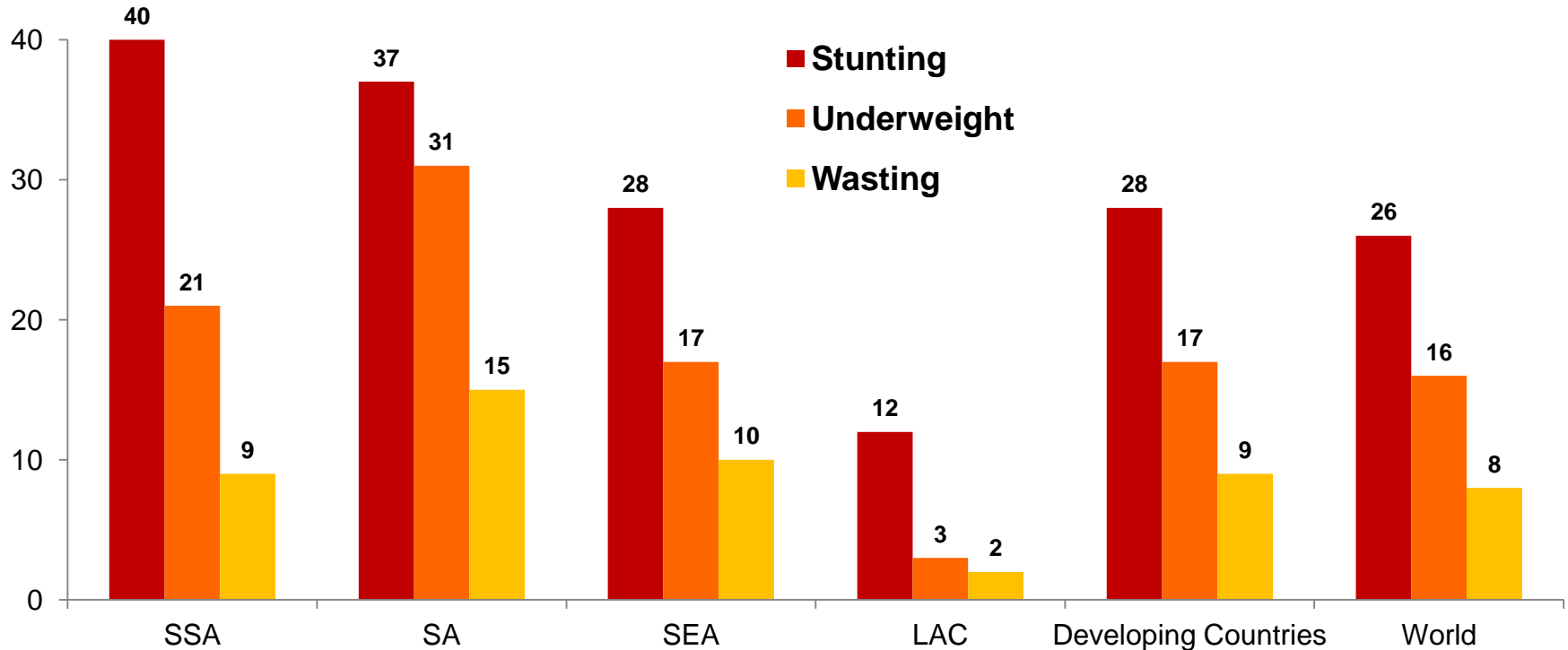
Source: HarvestPlus 2011

**Economic cost of malnutrition = \$2.8 - 3.5 trillion or
4 - 5% of global GDP** (FAO 2013)

Child malnutrition is widespread



Estimated prevalence of malnutrition in children under-five, 2011 (%)



Globally

- **165 million** children under-five are **stunted**
- **101 million** children under-five are **underweight**

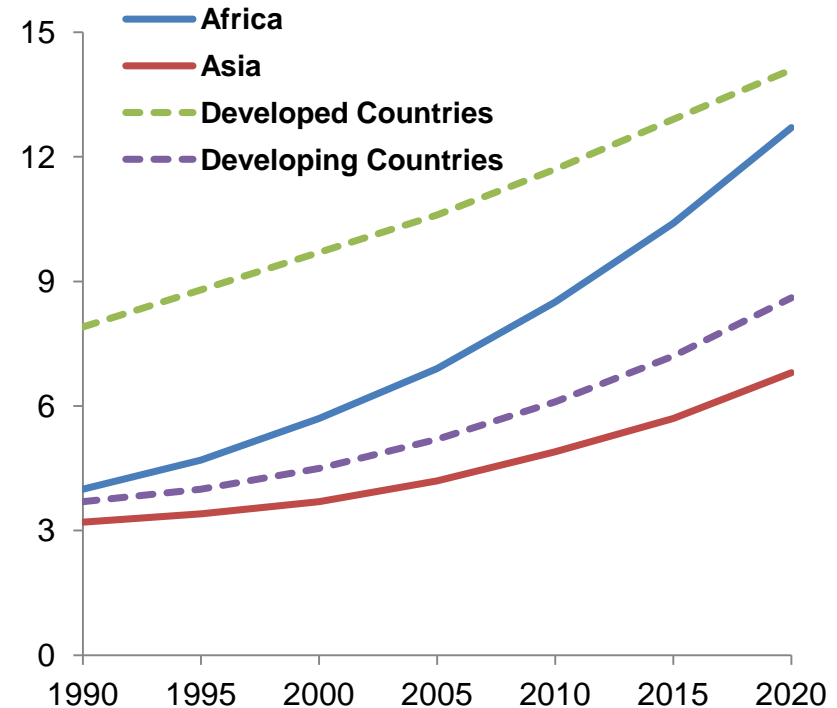
Overweight and obesity are rising



- In 2008
 - Over **1.4 bil.** adults overweight
 - Over **500 mil.** adults obese
- **2.8 mil.** deaths annually related to overweight and obesity
- Overweight and obesity no more a developed-country problem; in 2008
 - Brazil, Mexico, South Africa: **50-70%** of adults
 - China: **25%** of adults

Source: WHO 2013

Prevalence of overweight and obese children under-five, 1990-2020 (%)



Source: de Onis, et al. 2010

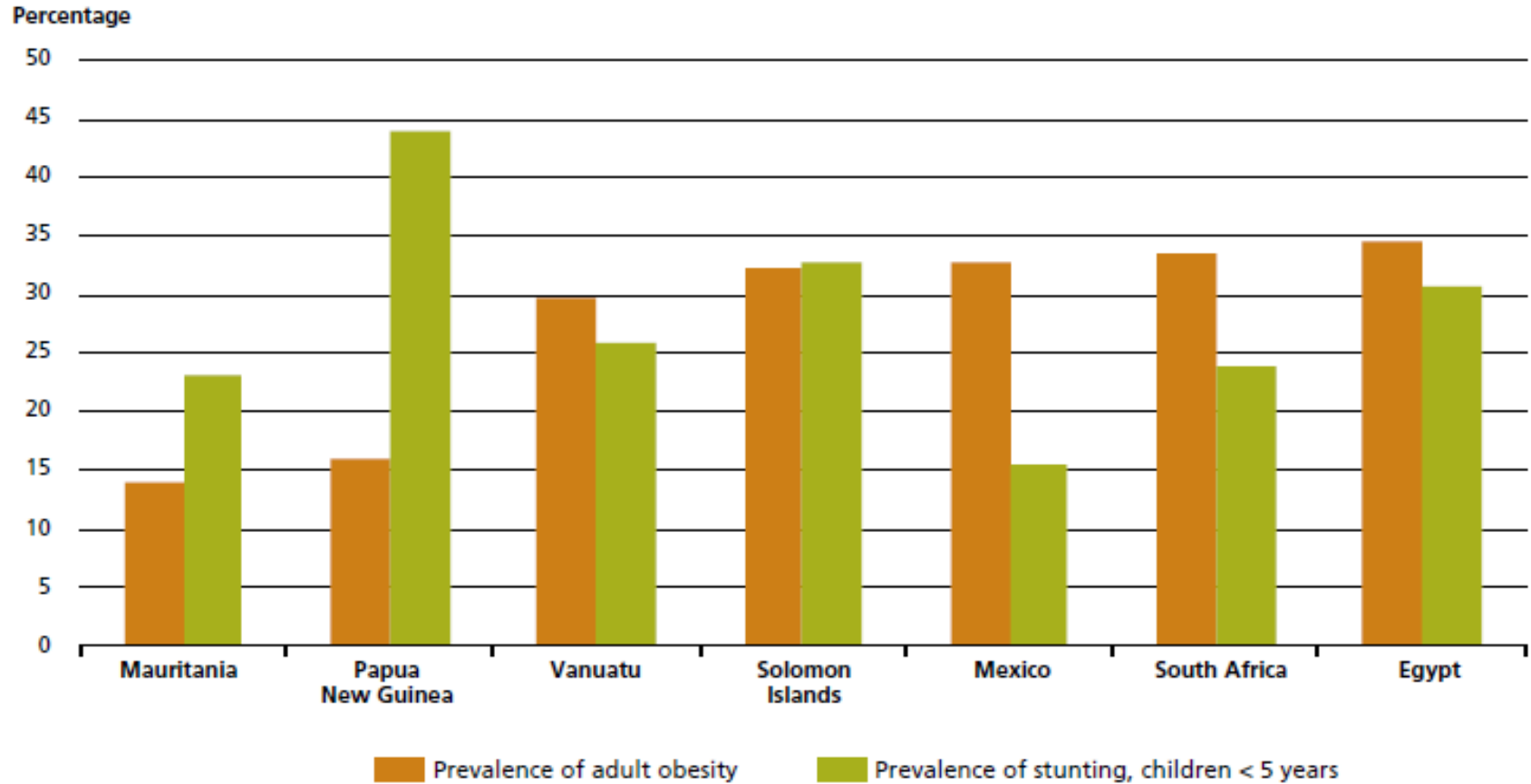
Note: Asia excludes Japan; Developed Countries includes Japan

Overweight and obese children to rise by **43%** in developing countries (2010-2020)

Different types of malnutrition now co-exist



Prevalence of adult obesity and child stunting in select countries (%)



Source: FAO 2012

Note: Prevalence of obesity is for 2008; prevalence of stunting in children is for the most recent year available



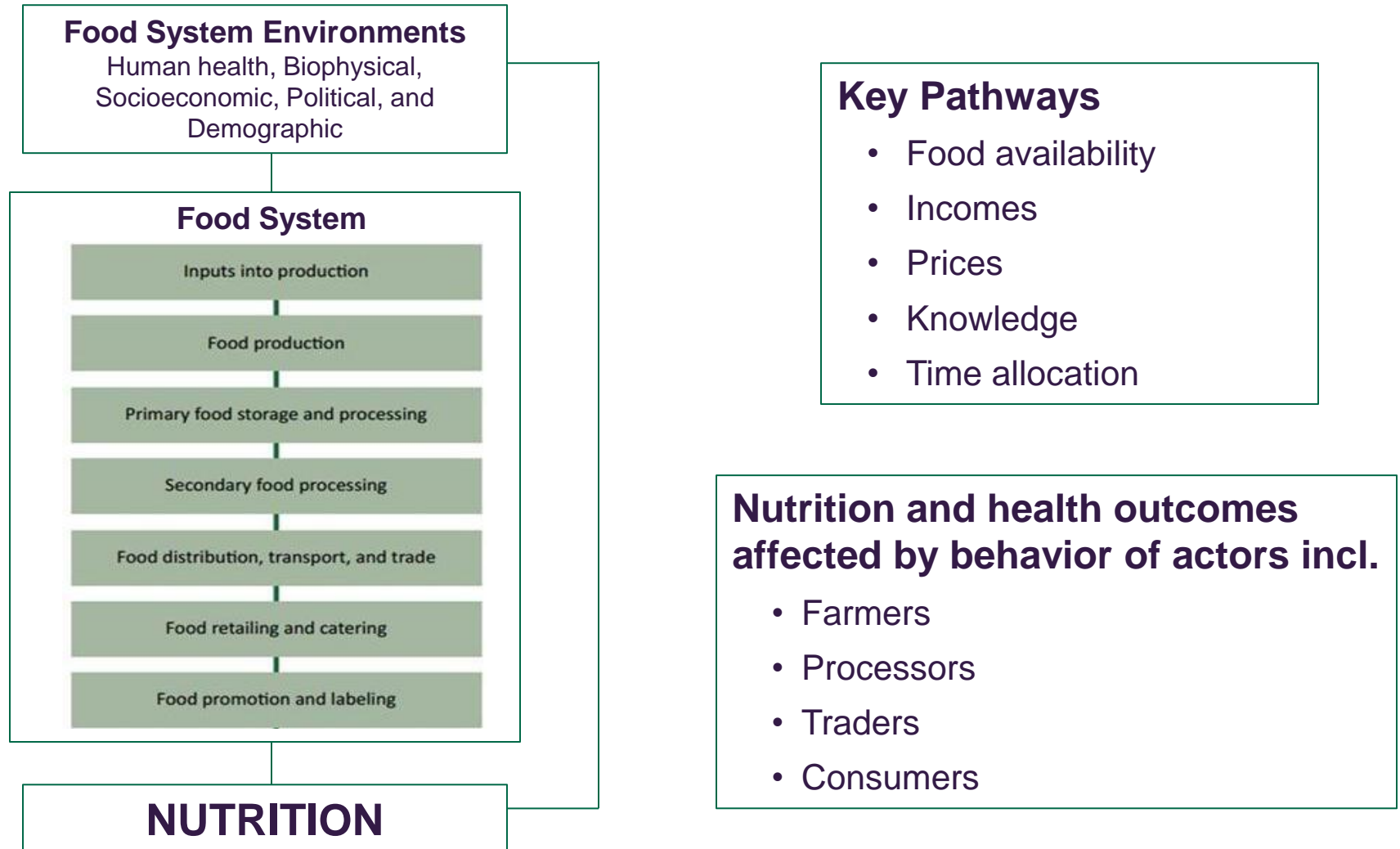
Food systems and nutrition are interlinked

Food system issues affecting nutrition include



- Big fluctuations in food production and prices
- Large variations in transmission of int'l food price changes to domestic markets
- Growing demand for more and better food
- Failure to pursue sustainable natural resource mgt. / climate change mitigation and adaptation policies
- Low priority to agricultural and rural development investments
- Focus on only expanded food production
- Low attention to gender-sensitive agriculture

Food systems and nutrition are interlinked



Enhanced nutrition is critical



Good nutrition is key for

- Health
- Physical and cognitive development
- Economic productivity
- Breaking cycles of poverty





Food systems must be leveraged for better nutrition

Opportunities to leverage food systems for better nutrition



1. Accelerate investments in agriculture, esp. for smallholder productivity
2. Adopt value-chain approaches for improving nutrition
3. Address food losses and waste
4. Promote food safety
5. Improve status of rural women

1. Accelerate investments in agriculture, esp. for smallholder productivity



- **Invest in agricultural R&D and rural infrastructure**
- **Improve access to inputs** e.g. seeds and fertilizer
- **Increase access to high-value supply chains and markets** e.g. fruits, vegetables, and milk
- **Promote smallholder-friendly innovations**
 - Financial and information services e.g. community banking, ICTs
 - Risk management mechanisms e.g. weather-based index insurance
 - Institutional arrangements e.g. producer cooperatives

2. Adopt value chain approaches for improving nutrition



- Boost supply of accessible nutritious foods
e.g. via biofortification and crop diversification
- Raise demand for and acceptability of nutritious foods
e.g. via public awareness campaigns, taxes on unhealthy foods,
and subsidies on nutrient-rich foods
- Increase coordination among value-chain actors and activities
e.g. Connecting milk grid in India (Operation Flood)
- Address trade-offs between economic returns and nutritional benefits of agriculture in the value chain
e.g. organic certification

Promoting nutrition-sensitive fertilizers



Invest in micronutrient fertilization e.g.

- **Zinc (Zn) fertilization** (HarvestPlus 2011)

- Increases Zn concentrations in crops and soils
- Optimizes breeding of Zn fortified crops



©FAO 2006

- **Selenium (Se) fertilization** (IPNI and IFA 2012)

- Adequate Se levels in crops have health benefits
- Food safety must be considered due to potential toxicity from excessive Se

Research on fertilization of essential micronutrients must be enhanced

Promoting biofortification



Reduces micronutrient deficiencies by improving nutrient content of food crops

HarvestPlus (IFPRI)

Target Crops, Nutrients, Countries, & Release Dates



Bean	Iron	DR Congo, Rwanda	2012
Cassava	Vitamin A	DR Congo, Nigeria	2011
Maize	Vitamin A	Nigeria, Zambia	2012
Pearl Millet	Iron	India	2012
Rice	Zinc	Bangladesh, India	2013
Sweet Potato	Vitamin A	Mozambique, Uganda	2007
Wheat	Zinc	India, Pakistan	2013

Note: All varieties are conventionally bred.

Prioritizing R&D investment to increase innovation and adoption of biofortified crops is key

3. Address food losses and waste



Addressing food losses and waste can enhance nutritional status

■ Developing countries

Losses mainly at early & middle stages of food supply chain

➔ Improve harvest techniques, farmer education, storage facilities, & cooling chains

■ Developed countries

Waste mainly at the retail & consumer level

➔ Increase consumer awareness and promote behavior change

4. Promote food safety



- Close knowledge gaps on
 - magnitude of health risks along food value chain
 - approaches that mitigate health risks in cost-effective manner
- Support sound legal and regulatory framework that covers the food supply chain
- Increase capacity of stakeholders in food supply chain to meet safety regulations
- Expand food safety knowledge e.g. via information campaigns
- Support integration of health into agricultural interventions

5. Improve status of rural women



- Promote women's increased control over assets e.g. land and livestock
- Enhance women's access to time- and energy-saving technology and other inputs
- Provide nutrition-related interventions during critical agricultural seasons
- Provide appropriate and affordable healthcare and childcare facilities
- Improve women's access to education

Integrated approaches are crucial



- **Sectors**

e.g. agriculture, nutrition, and health

- **Interventions**

e.g. nutrition-specific, nutrition-sensitive

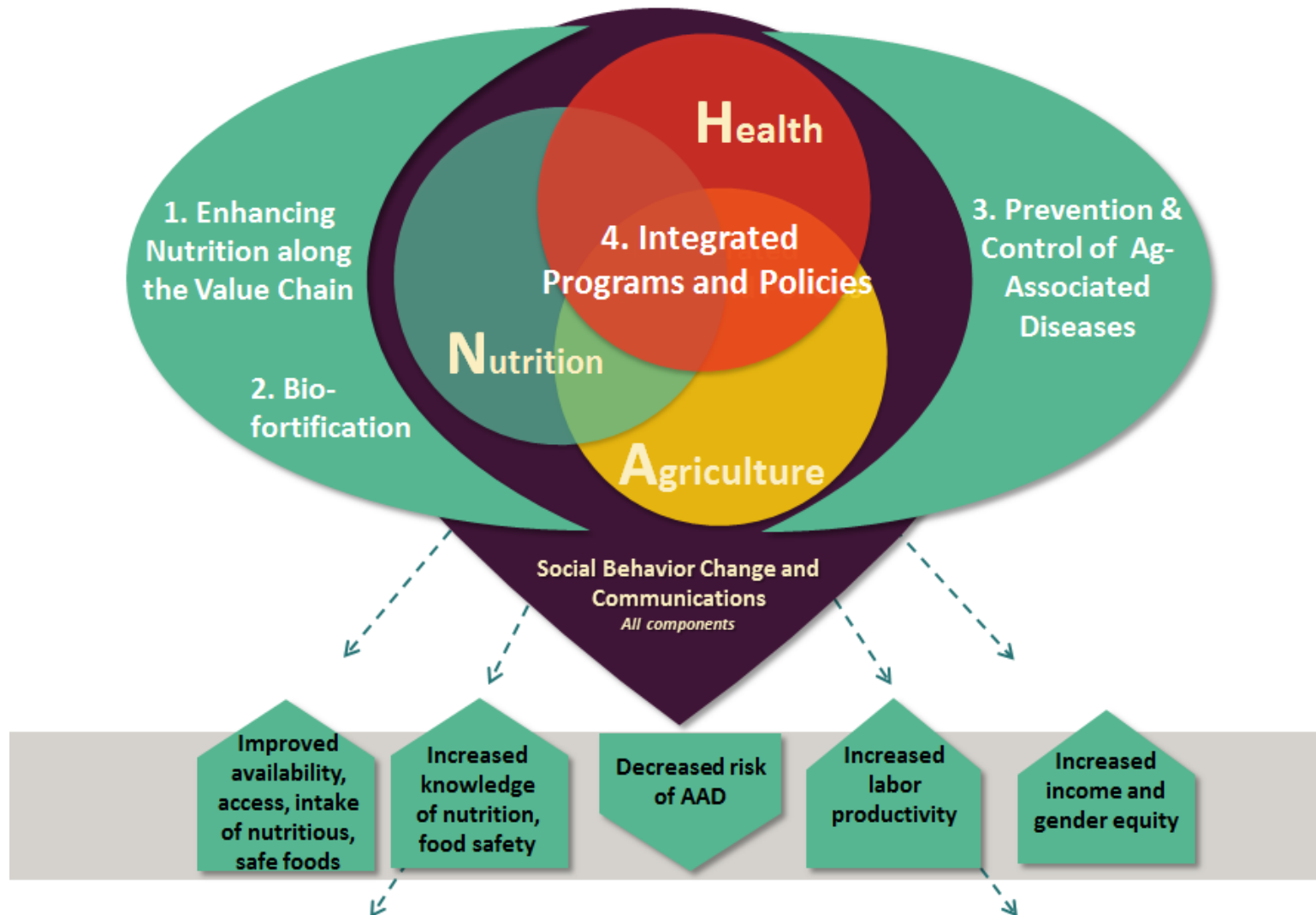
- **Disciplines**

e.g. agricultural scientists, economists, nutrition and health specialists

- **Actors**

e.g. policymakers, researchers, practitioners

IFPRI leads CGIAR program on agriculture for nutrition and health (A4NH)



RESULT: Improved nutrition and health, especially among women and young children