



Economics of Food Insecurity and Malnutrition

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INTERNATIONAL FOOD POLICY
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Key messages

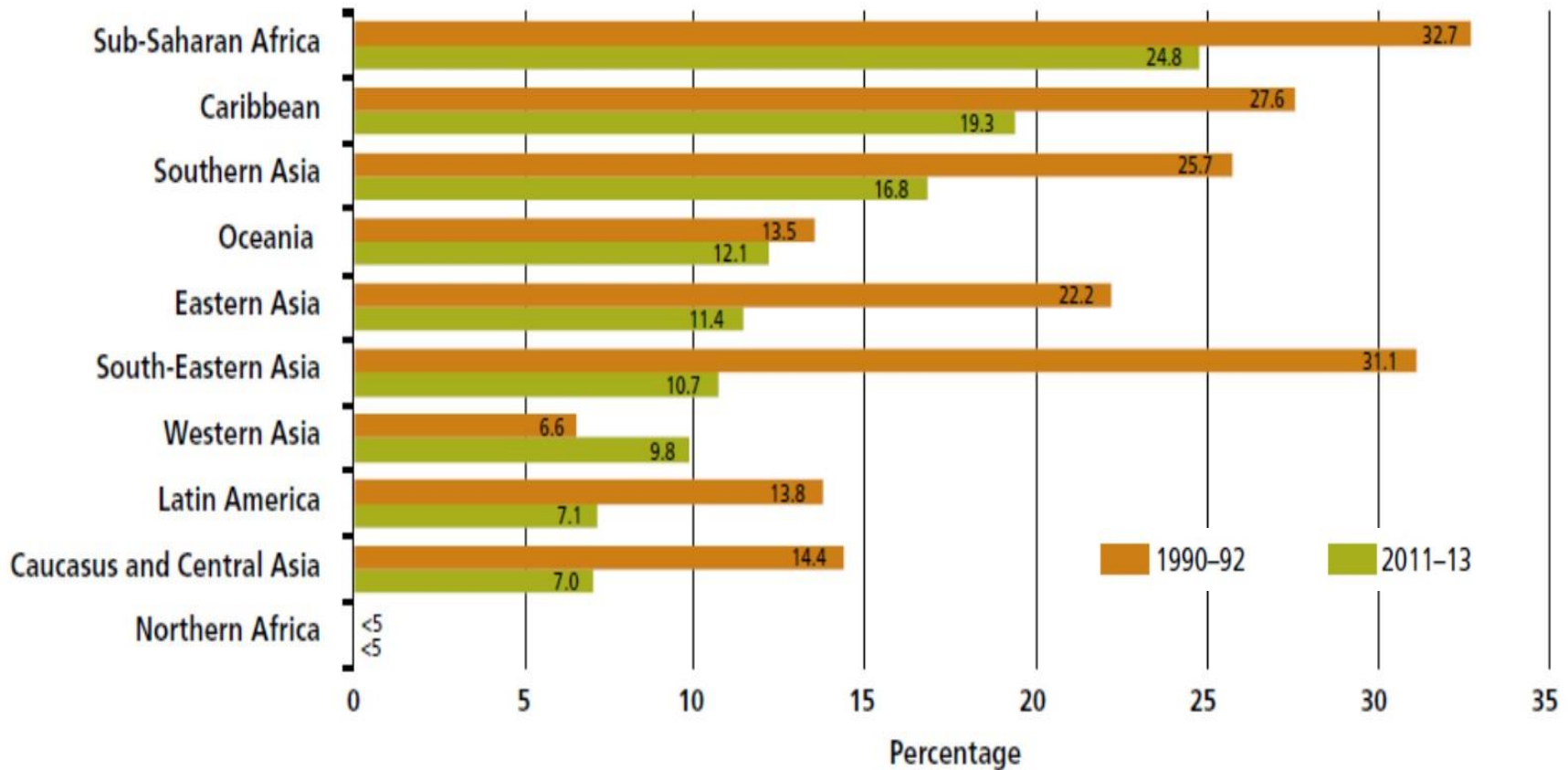


1. Global hunger and malnutrition remain big challenges
2. Elimination of hunger and malnutrition needs higher priority in post-2015 agenda
3. Hunger and malnutrition should be eliminated for ethical and economic reasons
4. Efficient policies and prioritized investments will be critical for achieving this goal

Despite progress, global hunger is still a big challenge



Prevalence of undernourishment by region



Nearly 850 million are hungry

Micronutrient deficiencies remain prevalent



Hidden Hunger Index (micronutrient deficiencies)



More than 2 billion people are micronutrient deficient

Source: Muthayya et al. 2013

Overweight and obesity are rising



■ In 2013

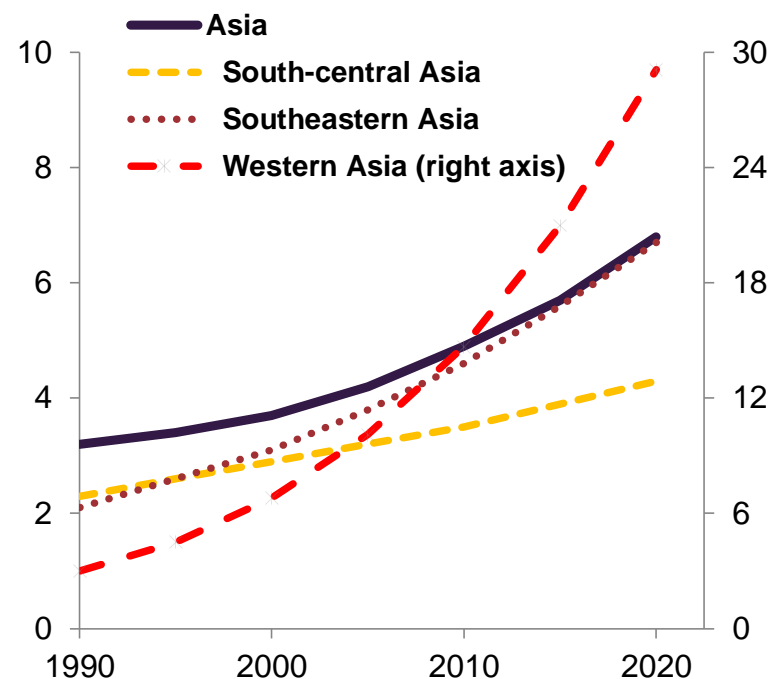
- 2.1 billion Individuals are overweight and obese

■ Overweight and obesity no more developed-country problem

- 62% of world's obese live in developing countries (2013)
- Over 40% men, 50% women are overweight and obese in Oceania (2013)

Source: Ng et al. 2014

Prevalence of overweight and obese children under-5, 1990-2020 (%)



Source: de Onis et al. 2010
Note: data excludes Japan

41% of the world's overweight and obese children live in Asia

Ending hunger and malnutrition needs higher priority in post-2015 agenda



- Post-2015 agenda being discussed is a framework for upcoming Sustainable Development Goals (SDGs)
- Elimination of extreme poverty is at the center of the SDGs
- Elimination of hunger and malnutrition should be equally central

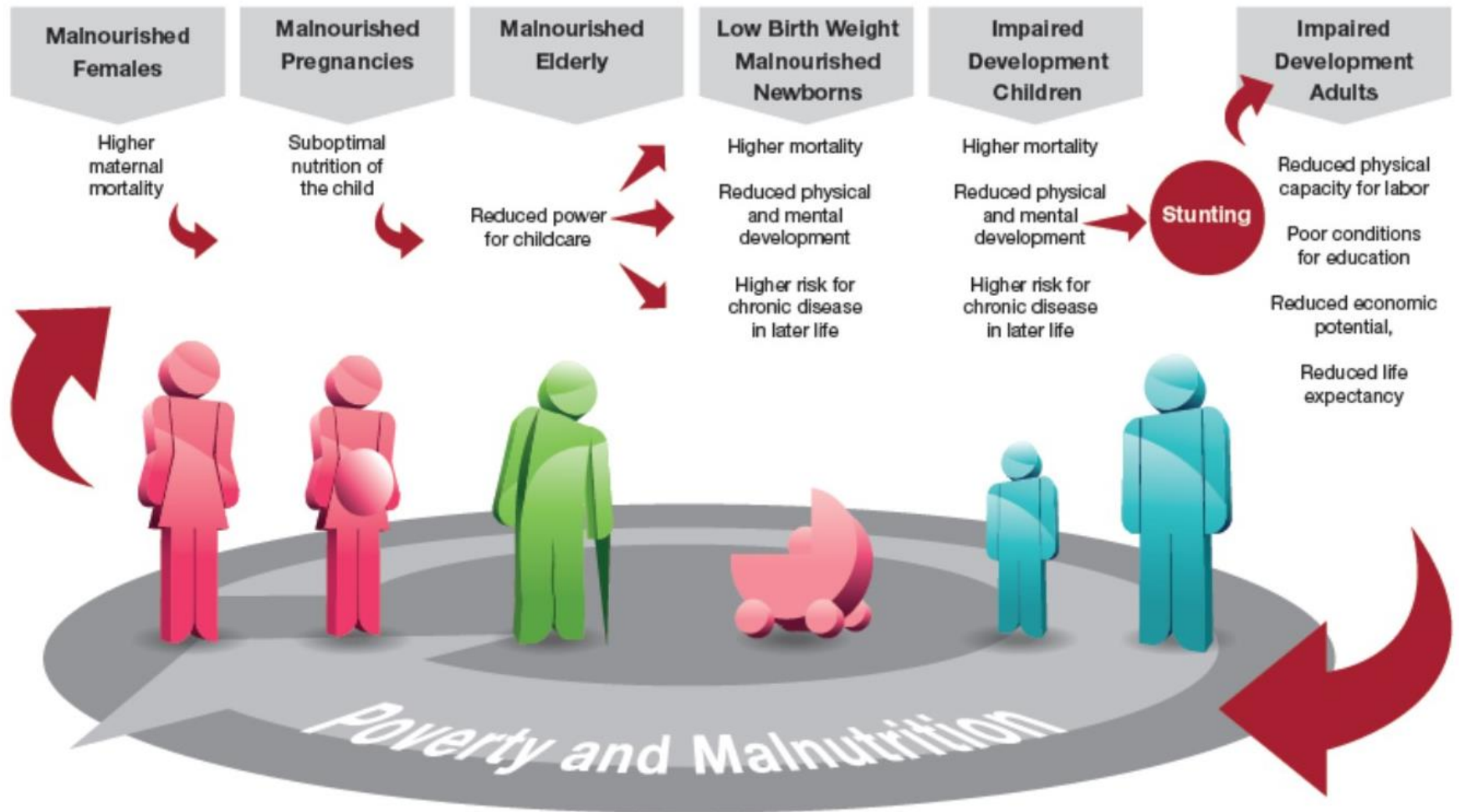
Why?

- Hunger and malnutrition affect capability of individuals to escape poverty
- For ethical and economic reasons

Poverty, hunger, malnutrition are linked in a vicious cycle



Trapped in the cycle of hunger, generation after generation



Hunger and malnutrition are costly



▪ **Impose large social and economic costs via**

- Impaired physical and cognitive development
- Problems of social exclusion
- Productivity losses; direct healthcare costs

▪ **Overweight and obesity social costs in 2010 =**

- 3.4 mil. deaths
- 3.9% years of life lost
- 3.8% of DALYs*

Source: Ng et al. 2014

▪ **Malnutrition**

- 5% loss of global GDP or US\$3.5 trillion per year

▪ **Undernutrition and micronutrient deficiencies**

- 2-3% loss of global GDP or US\$1.4–2.1 trillion per year

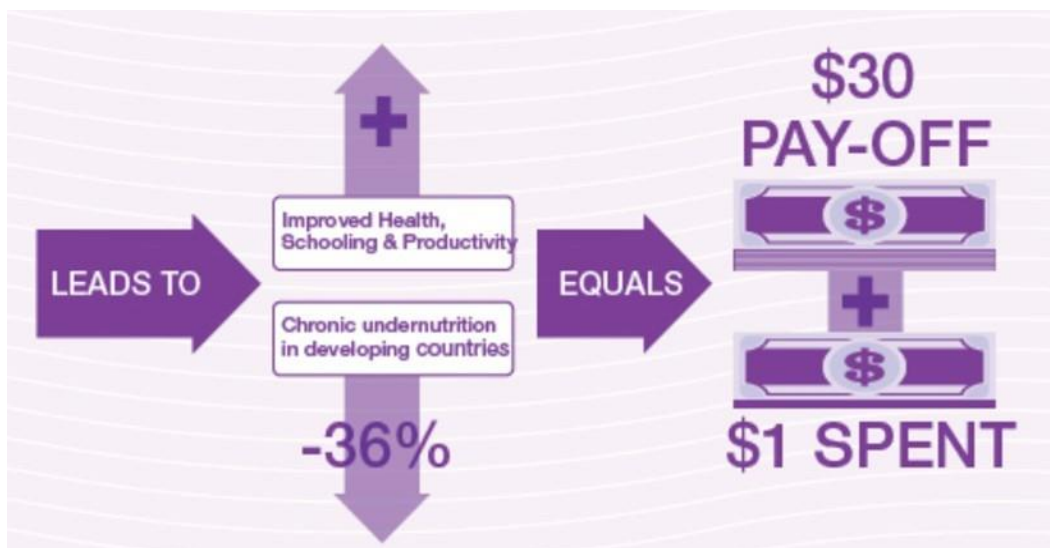
▪ **Overweight and obesity/NCDs**

- US\$1.4 trillion in 2010

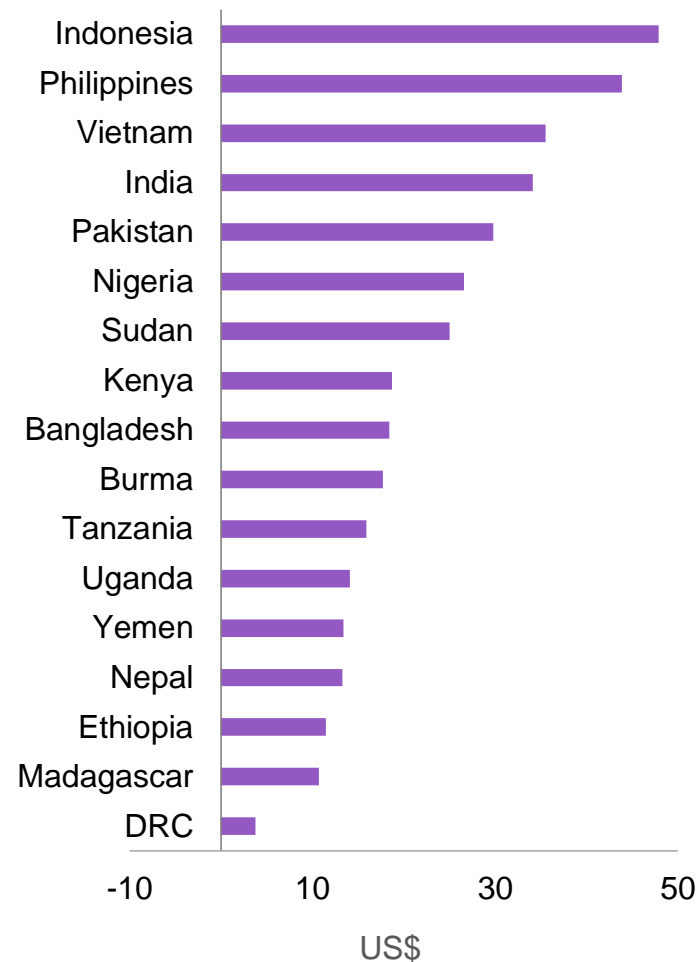
Source: FAO 2013

Note: * One DALY refers to loss of equivalent of one full year of “healthy” life; NCDs refer to non-communicable diseases

Economic returns to eliminating hunger and malnutrition can be very high



Economic returns to US\$ 1 invested in reducing stunting



BUT inefficient policies and practices add to burden of hunger and malnutrition



- Underinvestment in food security and nutrition
- Disconnect between agriculture and nutrition policies
- Unsustainable natural resource use in food production
- Trade restrictions
- Lack of social safety nets to protect the poorest
- Gender inequality in agriculture

Efficient policies and prioritized investments are key



- Accelerate investments in nutrition and reshape agriculture for improved nutrition and health
- Promote sustainable intensification and resilient food system
- Transform smallholders
- Scale up well-targeted, productive, cross-sectoral social safety nets
- Facilitate open, transparent, and fair trade
- Support gender equality in agriculture

Invest in nutrition-specific and nutrition sensitive interventions

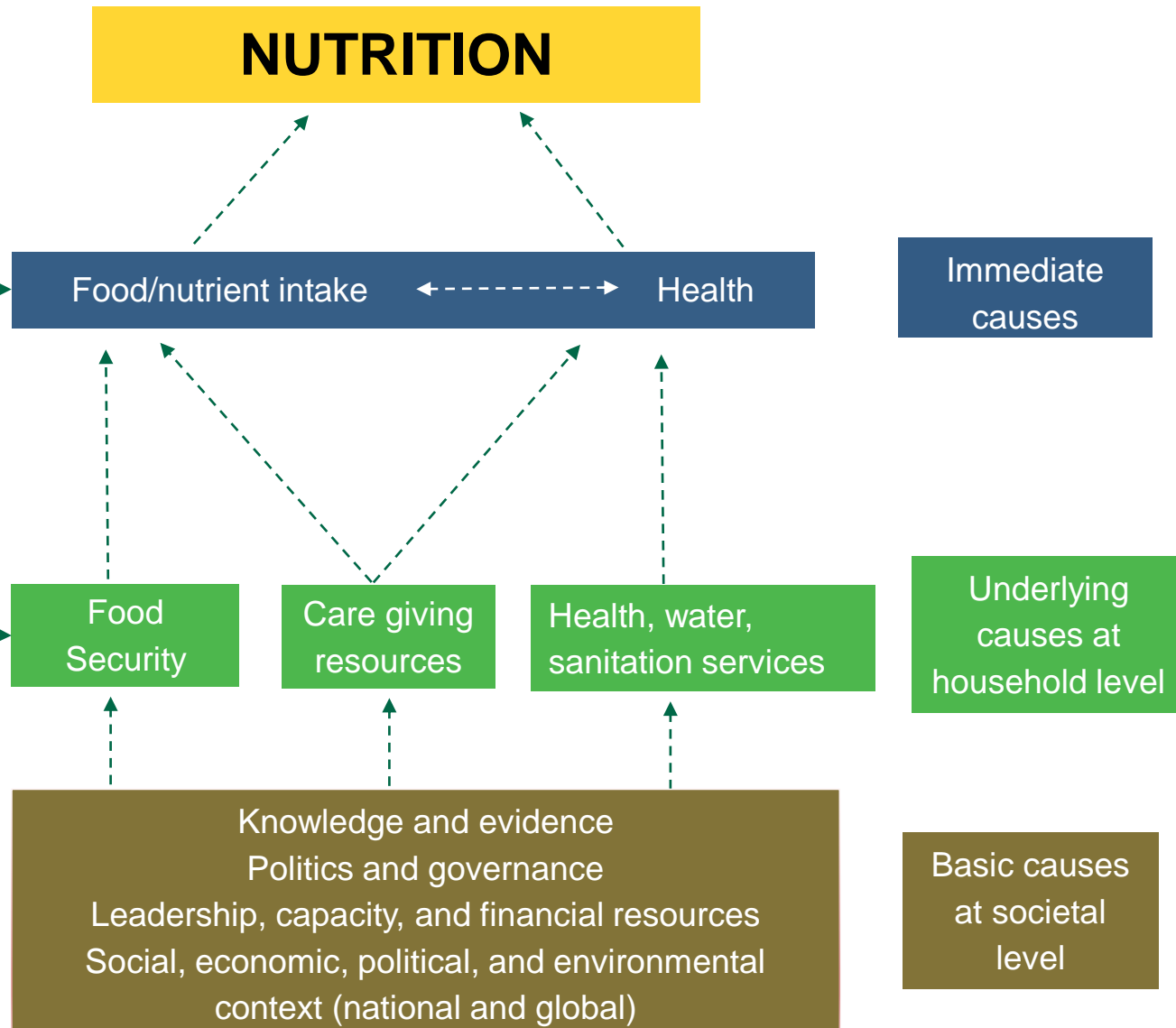


Nutrition-specific interventions and programs e.g.

- Micronutrient supplementation
- Breastfeeding & complementary feeding
- Dietary diversification

Nutrition sensitive programs and approaches e.g.

- Agriculture & food security
- Social safety nets
- Women's empowerment
- Health, water, and sanitation services



Promote sustainable intensification and resilient food system



It involves more outputs (particularly nutrition) with more efficient use of *all* inputs (on a durable basis) while

- Reducing environmental impact and GHGs
- Building resilience
- Increasing natural capital and flow of environmental services

Agric. technologies that produce more with less

No-till	Nitrogen-use efficiency	Drought-tolerant varieties
Integrated soil fertility management	Water harvesting	Heat-tolerant varieties
Precision agriculture	Drip irrigation	Crop protection
Organic agriculture	Sprinkler irrigation	

Transforming Smallholders



- They still account for majority of malnourished
 - Not all smallholders are the same
 - They either have to **Move Up or Move Out**
-
- Support institutional reforms—strengthen land rights
 - Scale up innovative, smallholder-friendly financial services
 - Invest in new technologies; innovative risk management tools
 - Link smallholders to agrifood value chains
 - Promote market-based price stabilization

Scale up productive social safety nets



- Better-targeted and more productive social protection policies
 - Short-term cushion for coping with livelihood shocks
 - Long-term productivity-enhancing or exit opportunities for smallholders

- Cross-sectoral social protection to reach poor more effectively e.g.
 - **Ethiopia's Productive Safety Net Program**
 - Access to both safety nets and ag. support more beneficial than stand-alone programs (Gilligan, Hoddinott, and Taffesse 2009)

 - **Bangladesh's Vulnerable Group Development Program**
 - Food security and nutrition interventions with income-generating activities that target women (Ahmed et al. 2009)

Facilitate open, transparent, and fair trade



Harmful trade policies e.g. export bans hurt the poor and hinder efficiency of agricultural markets

- **Eliminate distortionary trade policies**
 - Promotes efficient allocation of resources
 - Improves access to food
- **Create global and regional grain reserves**
 - Located in poor food importing countries, e.g. Horn of Africa
- **Minimize food-fuel competition**
 - Halt grain-based biofuel production
- **Monitor protection policies of emerging economies e.g. China and India**

Support gender equality in agriculture



Gender inequality leads to inefficient allocation of resources

- Gender equality in agriculture leads to
 - Higher agricultural output; productivity gains
 - Reduced hunger and malnutrition, esp. for next generation
 - Improved rural livelihoods
- Examples of interventions
 - Strengthen land rights
 - Improve access to inputs and credit
 - Provide agricultural training and information





**It is good economics and
the right thing to do!**

Concerted action for efficient policies
and prioritized investments is critical to
end hunger and malnutrition