Global Diet Change
Implications for Agriculture and Nutrition

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Projected Food Prices: Increasing Scarcity

Based on IFPRI IMPACT Scenarios

Notes: 2010 = 100; CC = climate change
Non-food Competitors in Production

- Demand for biofuels and bioenergy
- Emissions mitigation and carbon sequestration
- Conservation and biodiversity
Agricultural Growth and Food Security

Supply drivers
- Climate change
- Water and land scarcity
- Science and technology policy
- Investment in agricultural research
- Policy and governance reform

Demand drivers
- Population: 9 billion people in 2050
- Income growth: Africa, not just Asia and Latin America
- Urbanization: in 2008 50% urban, in 2050 78% urban
Major Consequences

- Change in diets to convenience foods, fast foods
- Increased consumption of fruits and vegetables
- Higher food energy, more sugar, fats and oils
- Rapid growth in meat consumption and demand for grains for feed
- Half of growth in grain demand will be for livestock
- Intense pressure on land and water
Dietary and Food System Approaches to Improving Nutrition

Reducing post harvest losses
- 10% for grains; 25% for perishables
- Economic recoverability limited

Wasting less food
- 20% wastage in households

Consuming fish from sustainable stocks

Reducing consumption of meat and dairy products
Key Question

Would reduction in meat consumption in richer countries improve food security in developing countries?
Dietary Change Is Not Easy

CAMPAIGNS
Advocacy, educational, and public relations campaigns

PROMOTE LOW-MEAT MENUS
Cafeterias, schools, hospitals, and other public-sector institutions

POLICIES
Taxation and subsidy policies to increase the cost of meat compared to other food products
Per Capita Meat Consumption

Less meat in rich countries = more in developing countries

Source: IMPACT model projections
Feed Demand for Coarse Grains

Less meat = Lower feed-grain demand

Source: IMPACT model projections

[Bar chart showing feed demand in millions of metric tons for different regions and scenarios.]
World Prices of Grains

Reduced feed grain demand = Lower grain prices

Source: IMPACT model projections
Per Capita Food Grain Consumption

Lower grain prices increases demand

Source: IMPACT model projections
Per Capita Calorie Availability

Lower prices increase calorie access

Source: IMPACT model projections
Child Malnutrition

Small improvement

- 2000
- 2030 baseline
- 2030 HIC+China/Brazil (low meat)

Millions of children aged 0-5

Source: IMPACT model projections

All Sub-Saharan Africa
All Asia
Developing countries
Lower Meat Production Saves Large Areas of Pasture and Cropland

Source: IMPACT model projections
Conclusions

- Halving of meat consumption in richer countries has
  - small nutrition benefits in developing countries
  - big land saving impacts

- Dietary change is a useful tool for improved food security and nutrition

- But transformative progress requires much broader investment in agricultural and rural development