Agricultural Supply and Demand for Latin America and the Caribbean: Projections to 2050

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Drivers of Agricultural Growth and Food Security

- **Demand drivers**
  - Population growth: 9 billion people in 2050
  - Urbanization: 2008 = 50% urban; 2050 = 78% urban
  - Income growth
  - Biofuels and bioenergy
  - GHG mitigation and carbon sequestration
  - Conservation and biodiversity
Drivers of Agricultural Growth and Food Security

- Supply drivers
  - Water and land scarcity
  - Climate change
  - Investment in agricultural research
  - Science and technology policy
  - Management and governance reform
Baseline Projections of Supply, Demand and Food Security
Annual Average Growth in GDP, Baseline Projections between 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
Annual Average Growth in Per Capita GDP, Baseline Projections between 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
Annual Average Growth in Population, Baseline Projections between 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
World Cereal Yields
Annual Average Growth Rate

Source: IFPRI IMPACT Model, September 2011 simulations
Total Cereal Yields – LAC Regions
Annual Average Growth Rate

Source: IFPRI IMPACT Model, September 2011 simulations
World Cereal Area-
Baseline Projections, 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
Total Cereal Area by LAC Regions-
Baseline Projections, 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
Source of Cereal Production Growth, 2010 - 2050

Source: IFPRI IMPACT Model, September 2011 simulations
Percent Change in World Prices of Cereals between 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
Percent Change in World Prices of Meat between 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
LAC Cereal Production-
Baseline Projections, 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
LAC Meat Production-Baseline Projections, 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
LAC Per Capita Cereal Demand - Baseline Projections, 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
Per Capita Meat Demand - Baseline Projections, 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
LAC Per Capita Meat Demand-Baseline Projections, 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
LAC Net Trade Cereals-
Baseline Projections, 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
LAC Net Trade Meat - Baseline Projections, 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
Population at the Risk of Hunger – Baseline Projections, 2010 and 2050

Developing

2010: 800
2050: 700

LAC

2010: 100
2050: 100

Source: IFPRI IMPACT Model, September 2011 simulations
Population at the Risk of Hunger – LAC
Baseline Projections, 2010 and 2050

Source: IFPRI IMPACT Model, September 2011 simulations
Conclusions and Policy Implications
Agricultural Productivity

- Increasing crop productivity: agricultural research, on-farm management, and rural investment
  - Emphasis on crop and livestock breeding (including biotechnology) targeting abiotic and biotic stresses
  - Water harvesting, precision agriculture, minimum tillage, integrated soil fertility management, integrated pest management, reduce post harvest losses
  - Rural infrastructure investment to improve access to markets, information, credit, inputs, mobile phone towers