

Week of Agriculture and Rural Life of the Americas

*Building Capacity for Enhancing Food
Security and Rural Life in the Americas*

The World Bank
October 2009
Montego Bay, Jamaica

Presentation Overview

Section 1: What are the challenges for LAC and what are their implications for agriculture?

Section 2: How is the World Bank responding to these challenges?

The challenges
for LAC:

1.
Rural poverty

2.
Urban-rural
income disparity

3.
Global demand
for food

4.
Volatility and
vulnerability

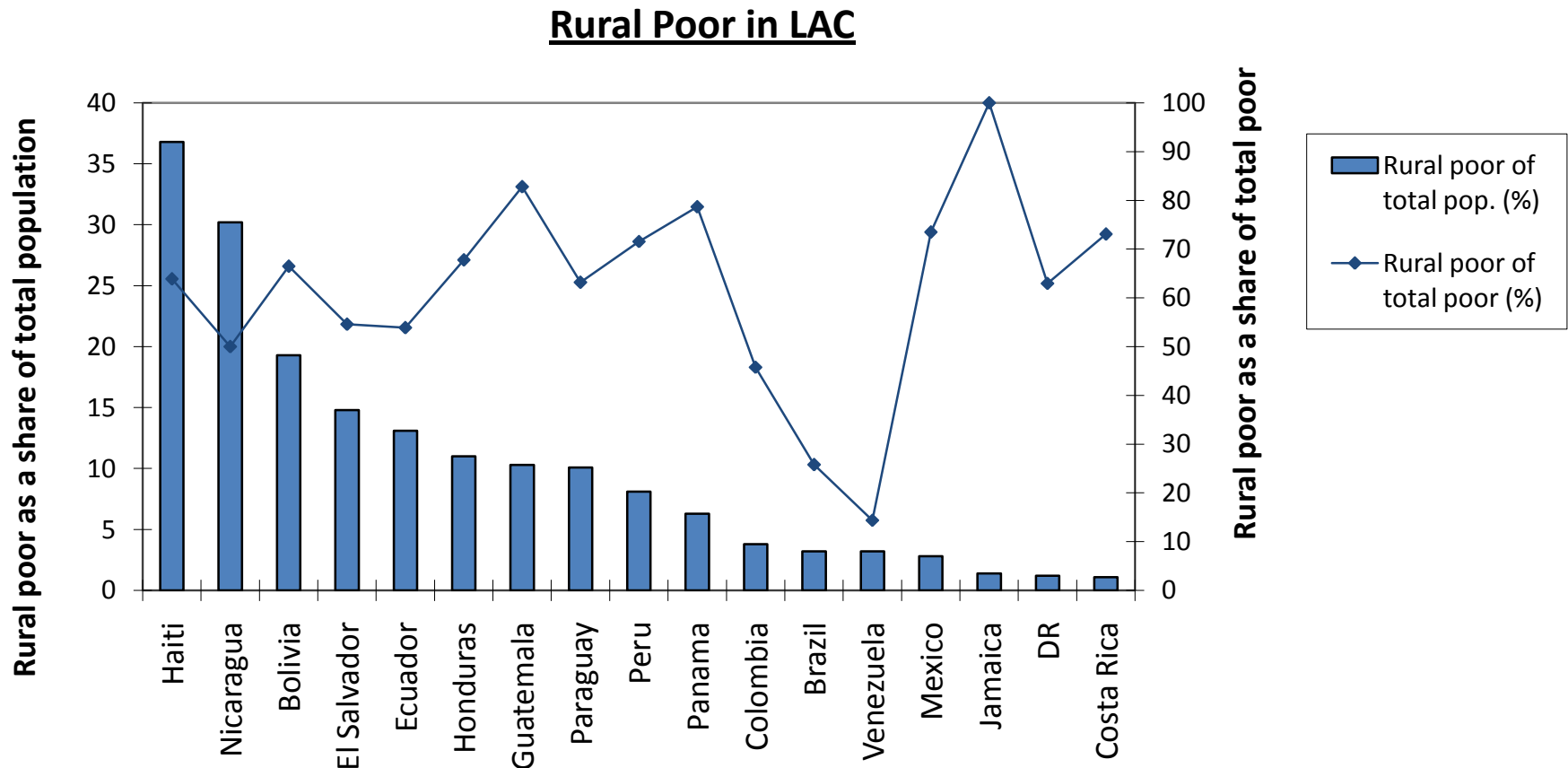
5.
Climate change

1. RURAL POVERTY

1.1: Poverty is still high and mainly a rural phenomenon

Rural poor as a share of total population and total poor is high in LAC

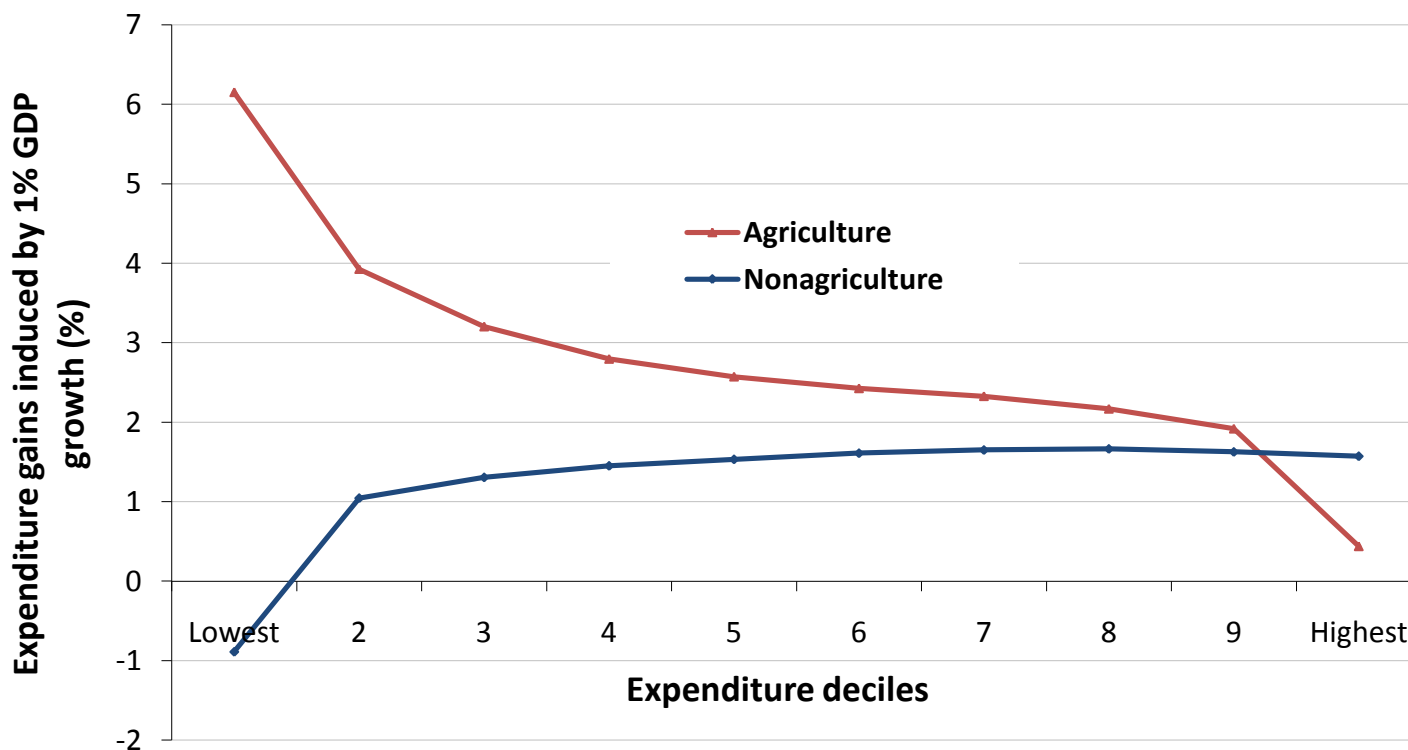
Rural poor represents 47% of total poor in LAC, weighted by population



Source: cedlas.org (left axis). <http://www.depeco.econo.unlp.edu.ar/sedlac/eng/statistics-detalle.php?idE=34>. WDI 2007 (2005 data), World Bank (right axis).

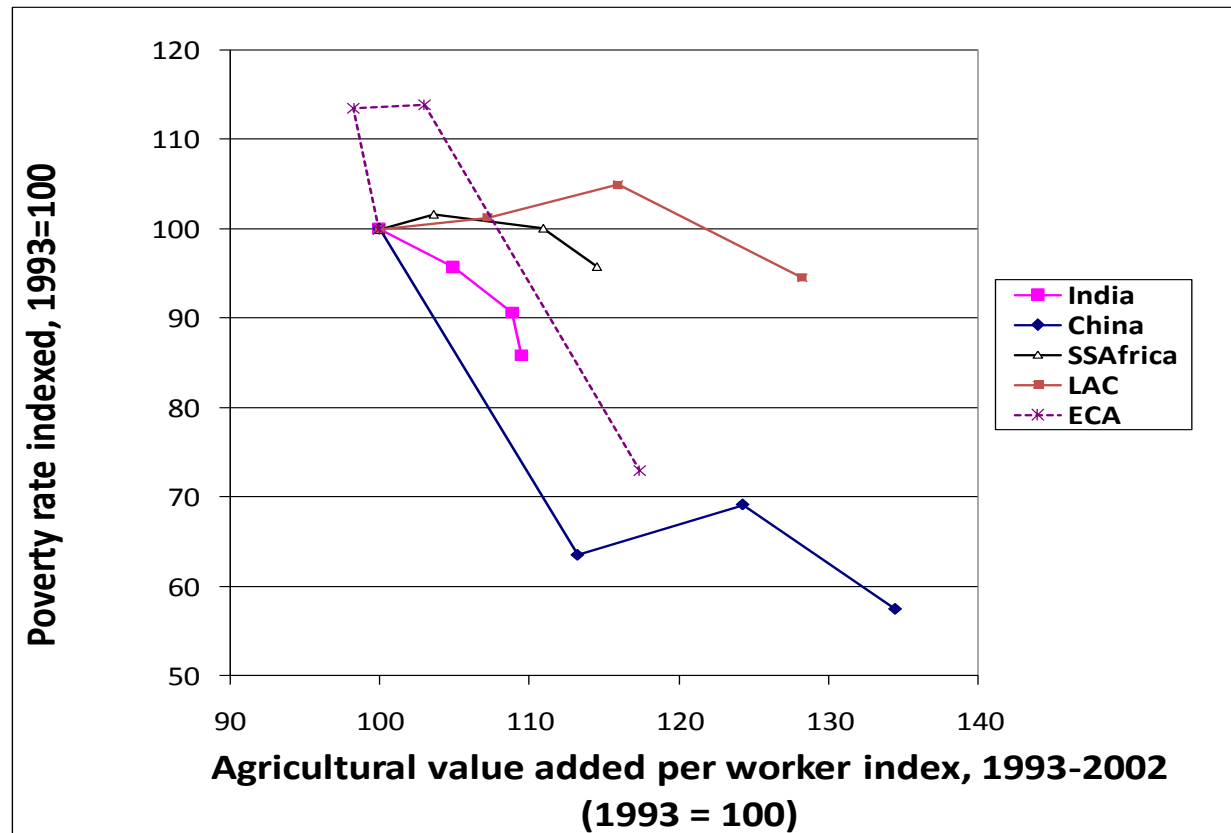
Growth in agriculture has the potential to benefit the poor more than growth in other sectors

The Expenditure Impact of Agriculture Growth



However, in LAC, the poverty effect of agriculture growth is low

Over time, agriculture value added increased but poverty rate did not decline in LAC.

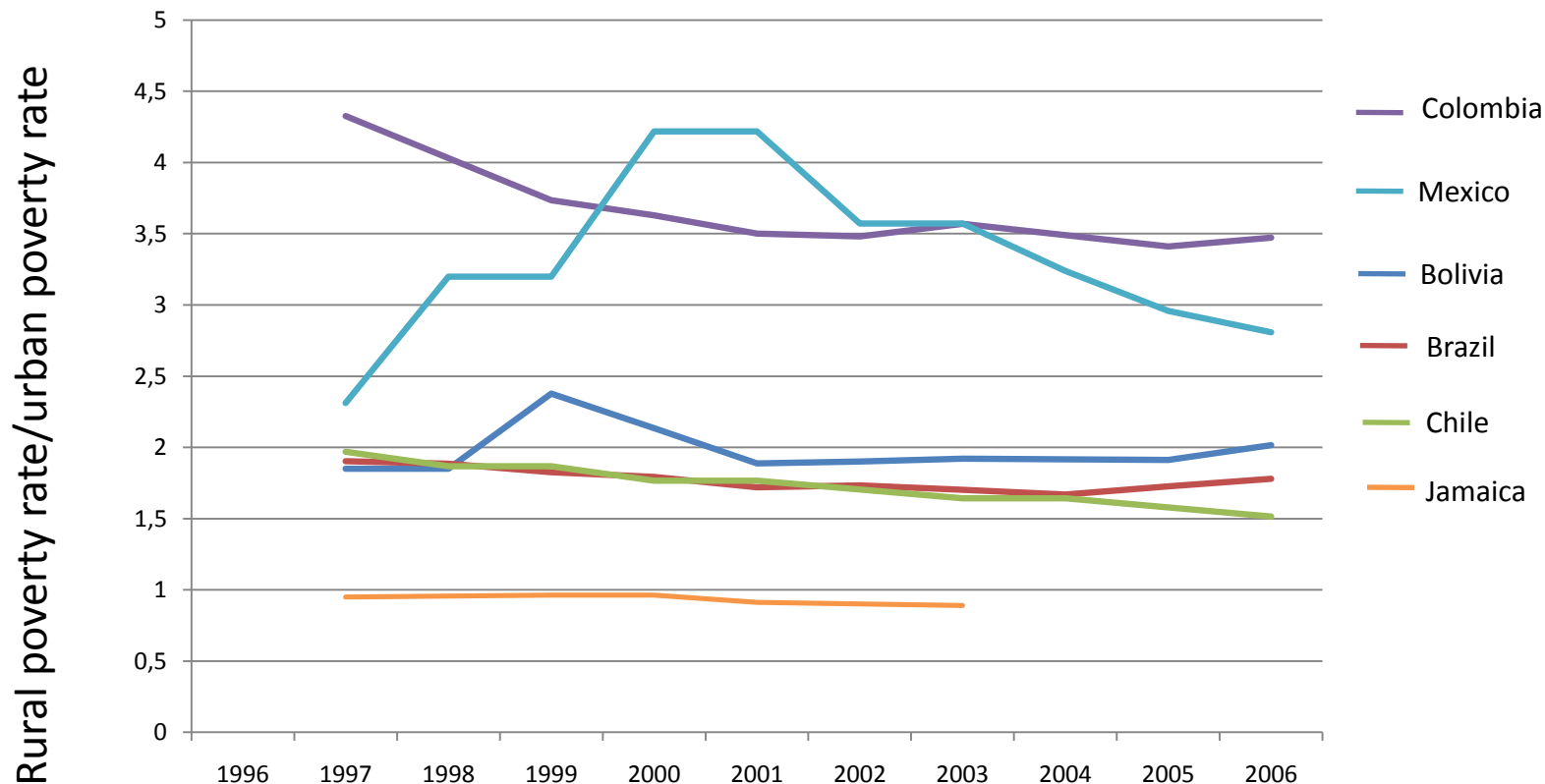


1.2: LAC needs to reduce urban-rural disparities

Which could lead to political and
social tensions

Urban/rural poverty gap is high in LAC

Relative rural/urban poverty rates

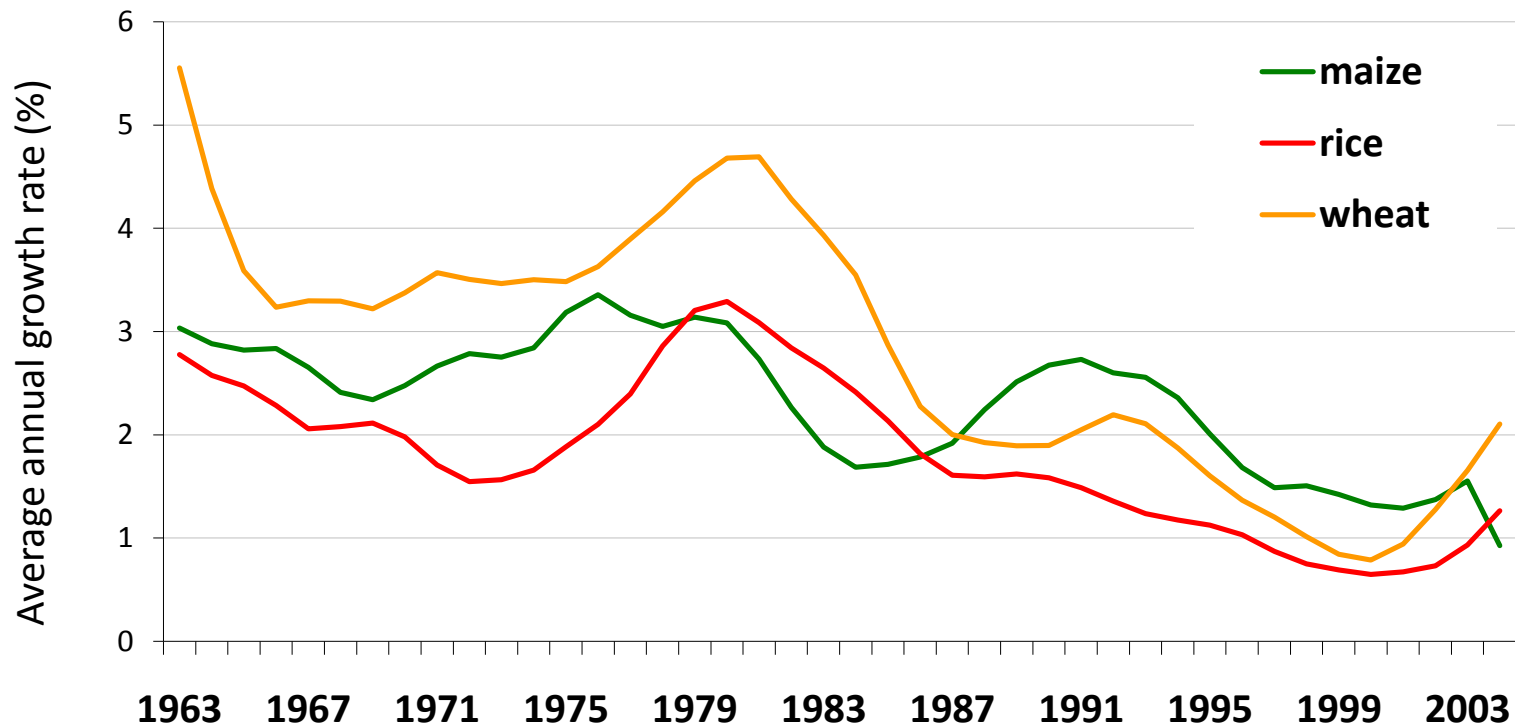


Source: SEDLAC 2009: <http://www.depeco.econo.unlp.edu.ar/sedlac/eng/dynamics-searches-result.php>

1.3: The demand for food is increasing

Food crop demand is rising (population growth, income growth in MICs), yet grain crop yield growth has declined.

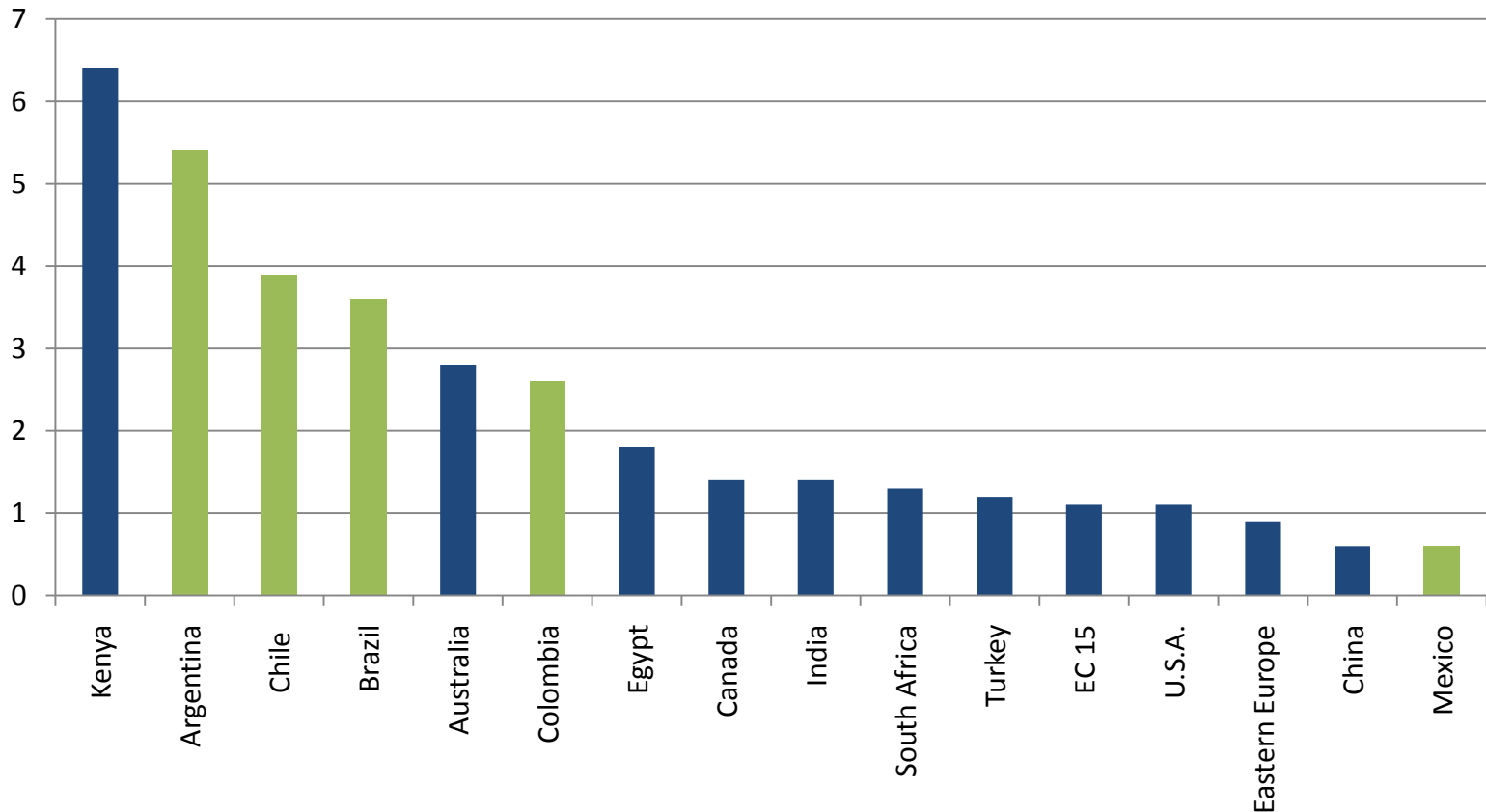
The growth rates of cereal yields is declining across developing countries



Source: FAO 2006. Referenced in the World Development Report 2008, pg. 67.

LAC has a comparative advantage in agriculture

Revealed Comparative Advantage (RCA): agriculture and food



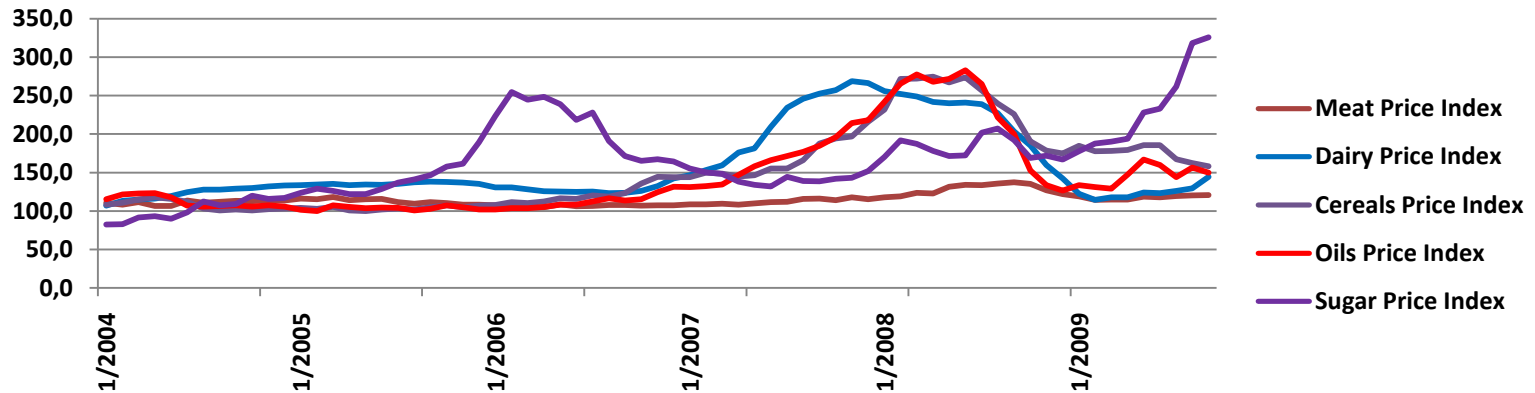
Source: Economic and Trade Indicators, World Bank Group.

1.4: Price volatility

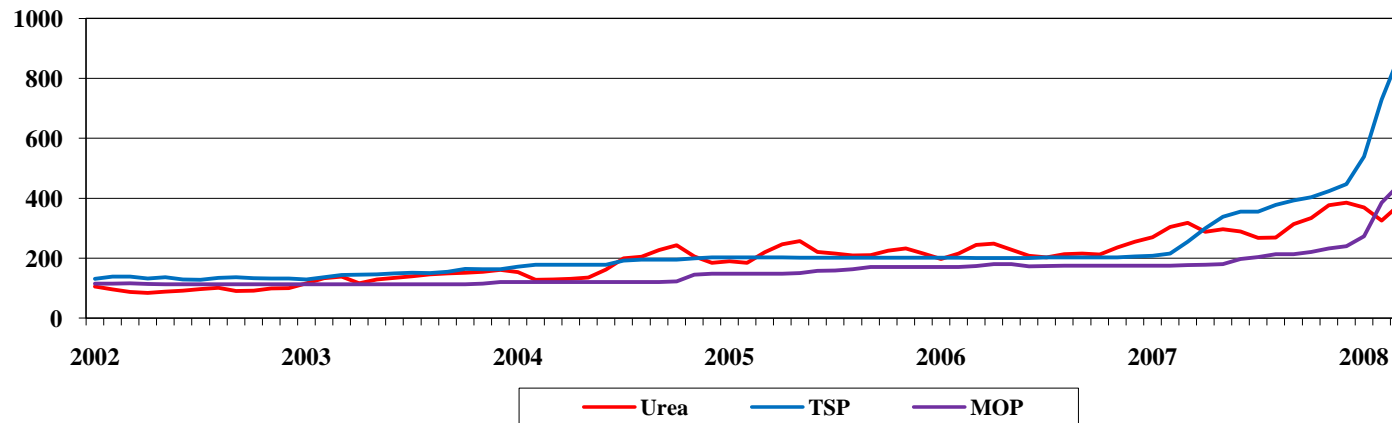
Volatile grain prices and lower purchasing power are hurting poor producers and consumers

High volatility of input and output prices means that small producers are constantly exposed

Global prices for outputs of bulk exports



Recent surge in input prices, with expected downturn

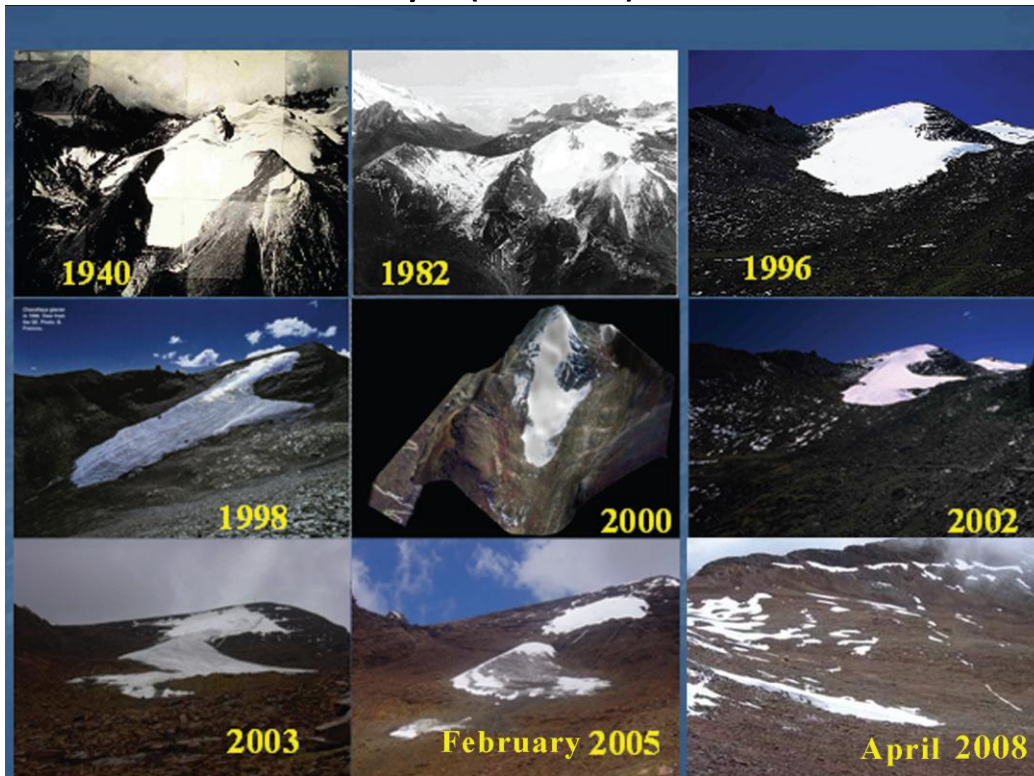


1.5: Climate change is a major threat

Agriculture is part of the problem.

Serious impacts of climate change are already observable in LAC

Glaciar Chacaltaya (Bolivia): 1940-2008



Increased risk of natural disasters

- Frequency has increased from 1 in every 4 to 1 in every 3 years (since 1990s)

Increased incidence of tropical diseases in various regions

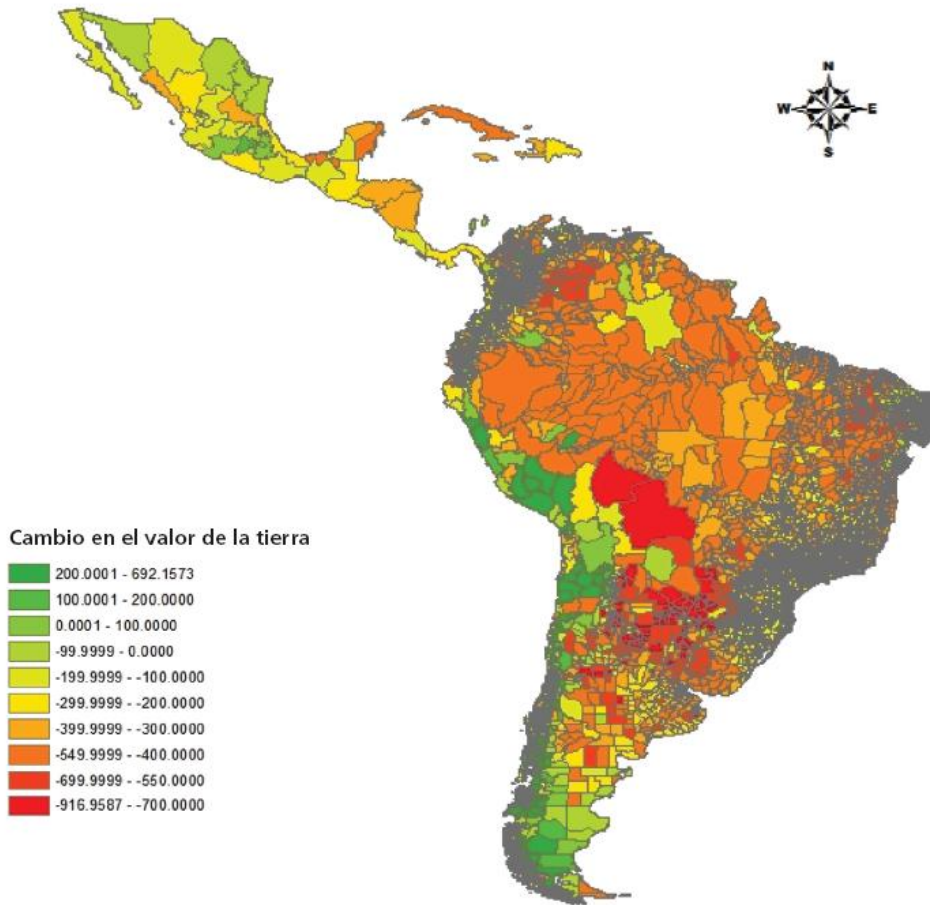
- Andes: from 400 to 800 cases of malaria/100,000 from 70s to 90s (Colombia)

Severe impact on unique ecosystems

- Drying of *páramos* and water supply

A possible collapse in agriculture productivity in LAC is predicted due to climate change

Cambios previstos en el valor de las tierras agrícolas para el 2080 (USD/hectárea)

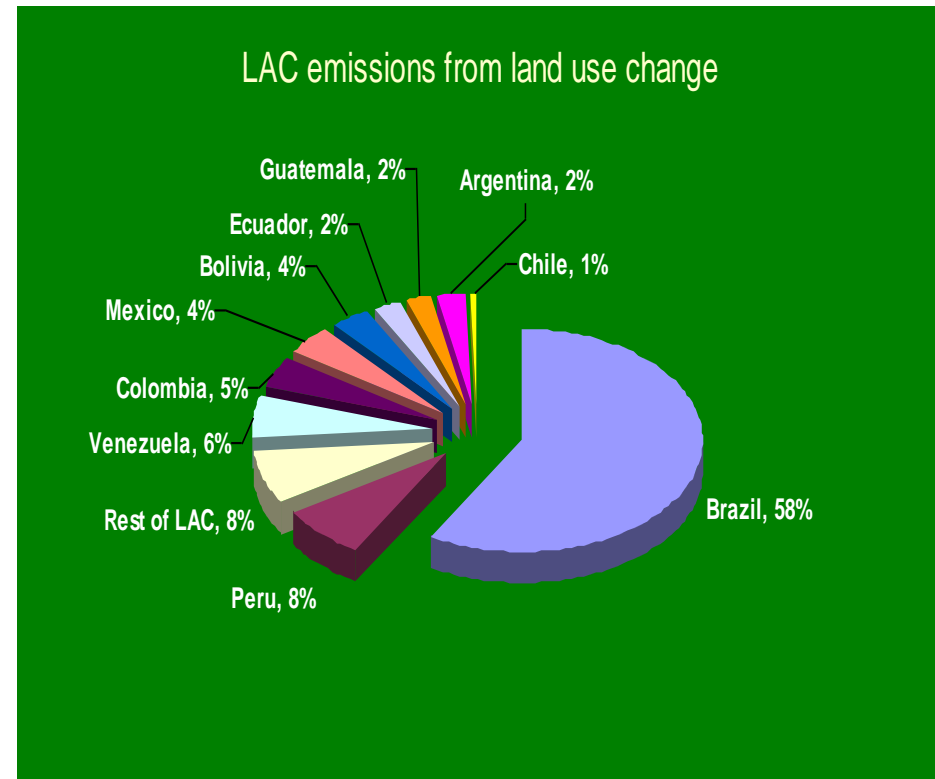
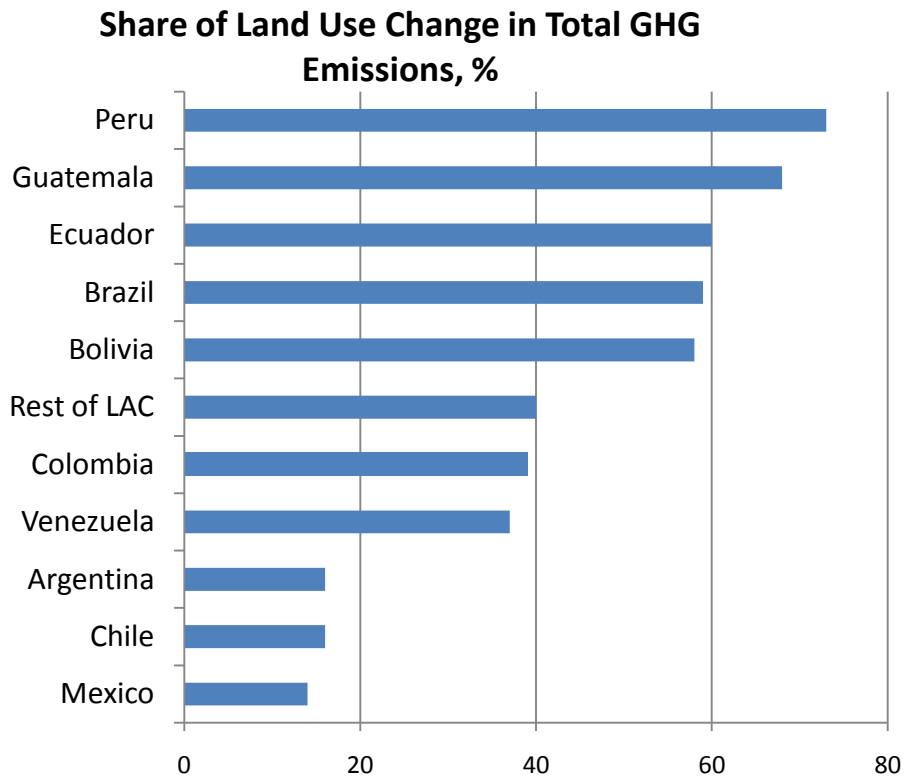


Fuente: Mendelsohn (2008). Los resultados que aparecen aquí son para pequeñas fincas en situaciones con un aumento de temperatura de 5° C para el 2100. El valor de las tierras es en USD por hectárea.

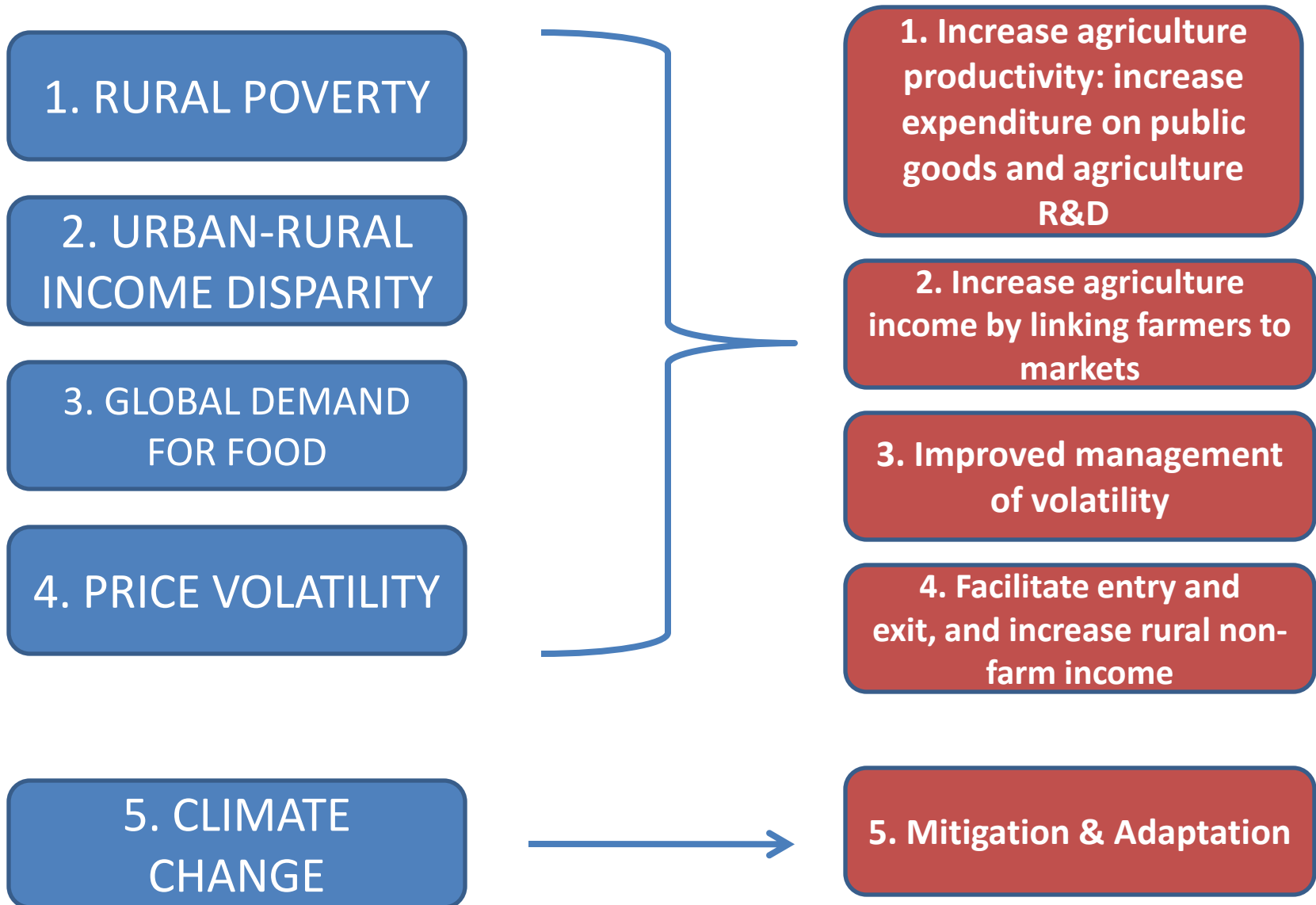
- Central America: between 12% and 29% reduction by 2080
- Reductions of 12% and 50% in South America (2100)
- Mexico: total loss of economic productivity in 30% to 85% of farms (2100)

46% of GHG emissions in LAC come from land use, and agriculture is a contributing factor

Share of emissions from LULUC by LAC Country (2000)



The World Bank's proposed strategies



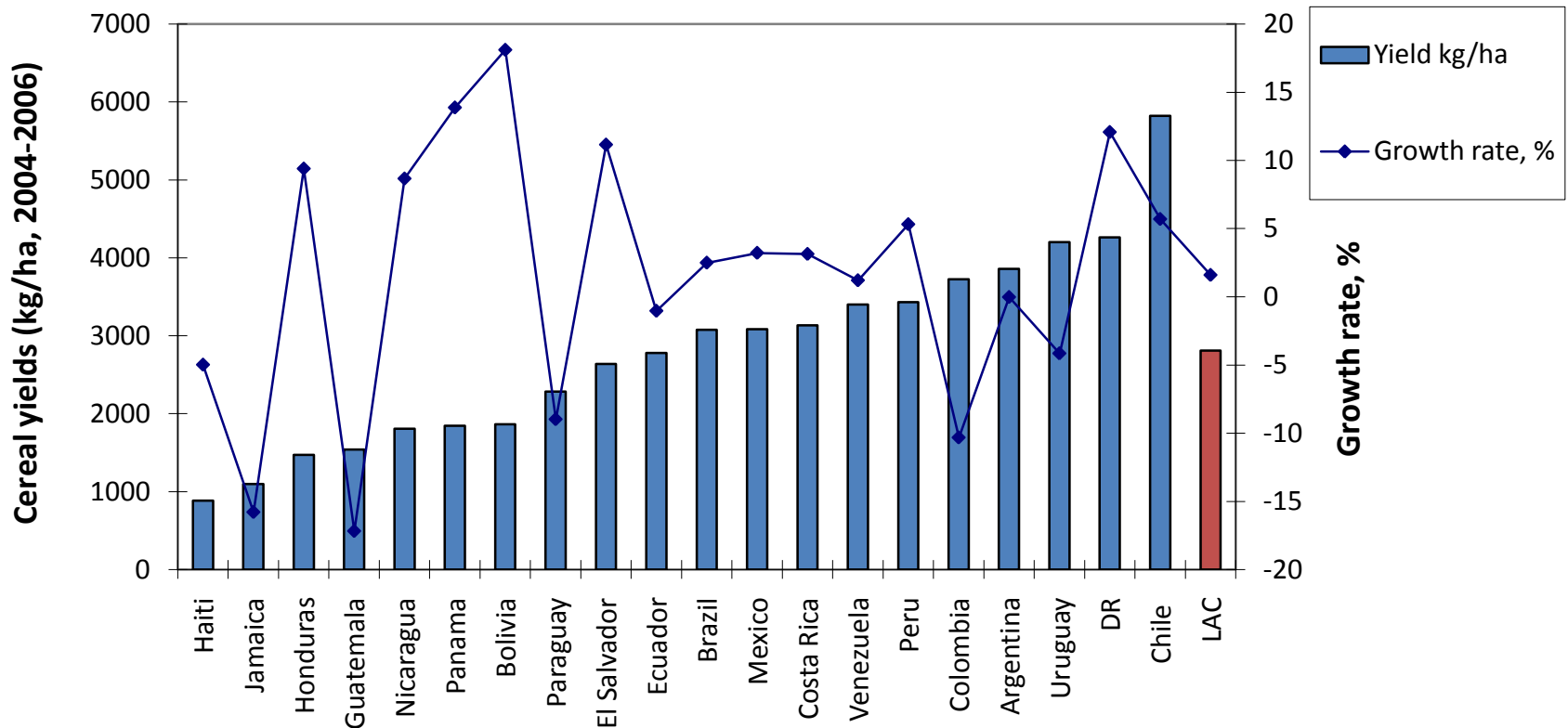
2.1: Increase agriculture productivity

Through strategic investment in agriculture public goods and research and development

Productivity gains in agriculture are feasible

Cereal yield growth rate over the period is negative in some countries

Cereal yields and yield growth rates vary across LAC

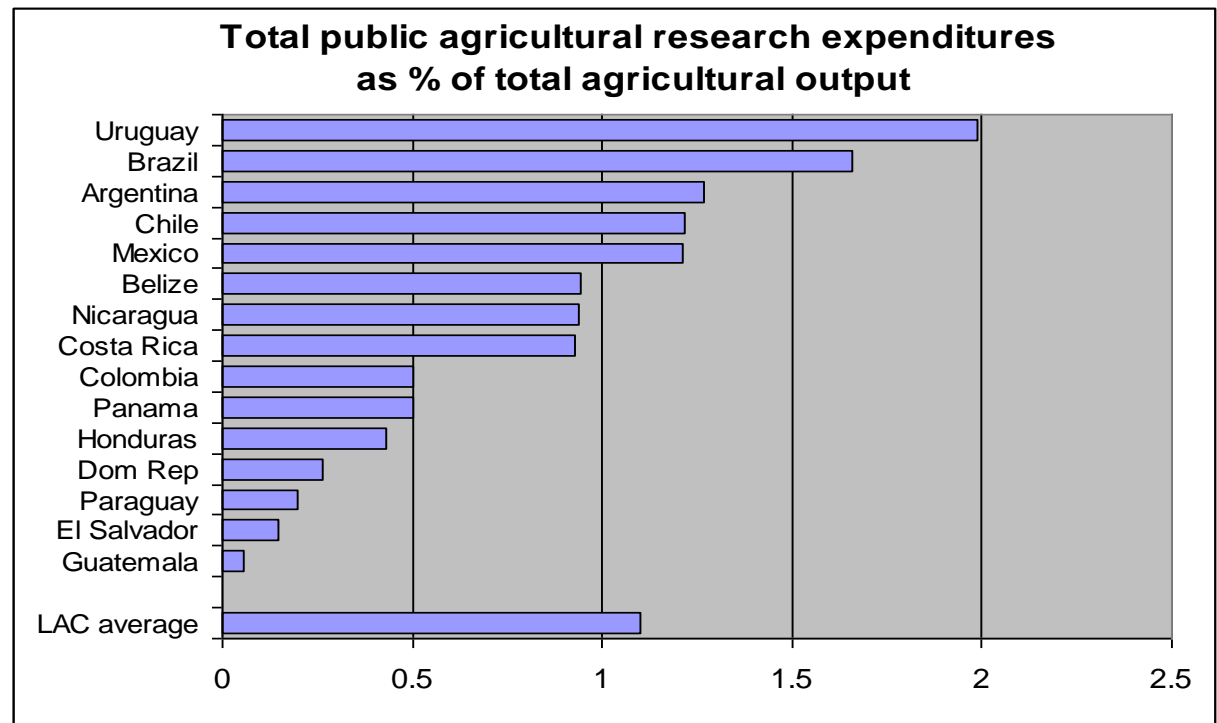


Source: WDI 2007 (data from 2005), World Bank.

Increase investment in agriculture knowledge, research and development

LAC Agriculture is rich in natural resources, but short on knowledge and technology.

- Public spending on agriculture R&D is the equivalent of only 1% of total average agriculture output in LAC.



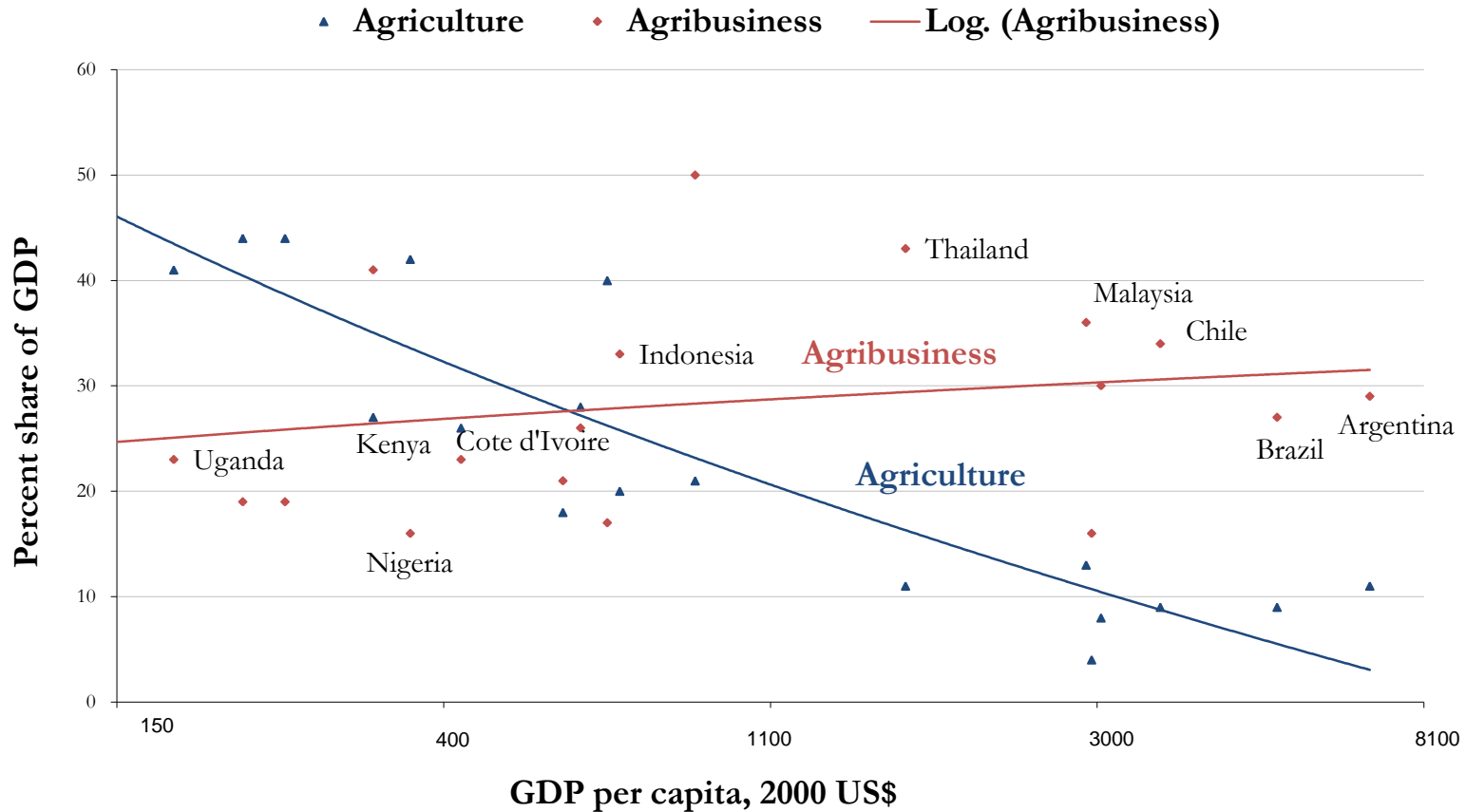
Invest in innovative agriculture R&D

The context for agricultural development is changing

- Agricultural development takes place in a global setting
- Markets, not production, increasingly drive agricultural development
- Knowledge, information and technology are increasingly diffused through the private sector
- The knowledge structure of the agricultural sector is changing in many countries

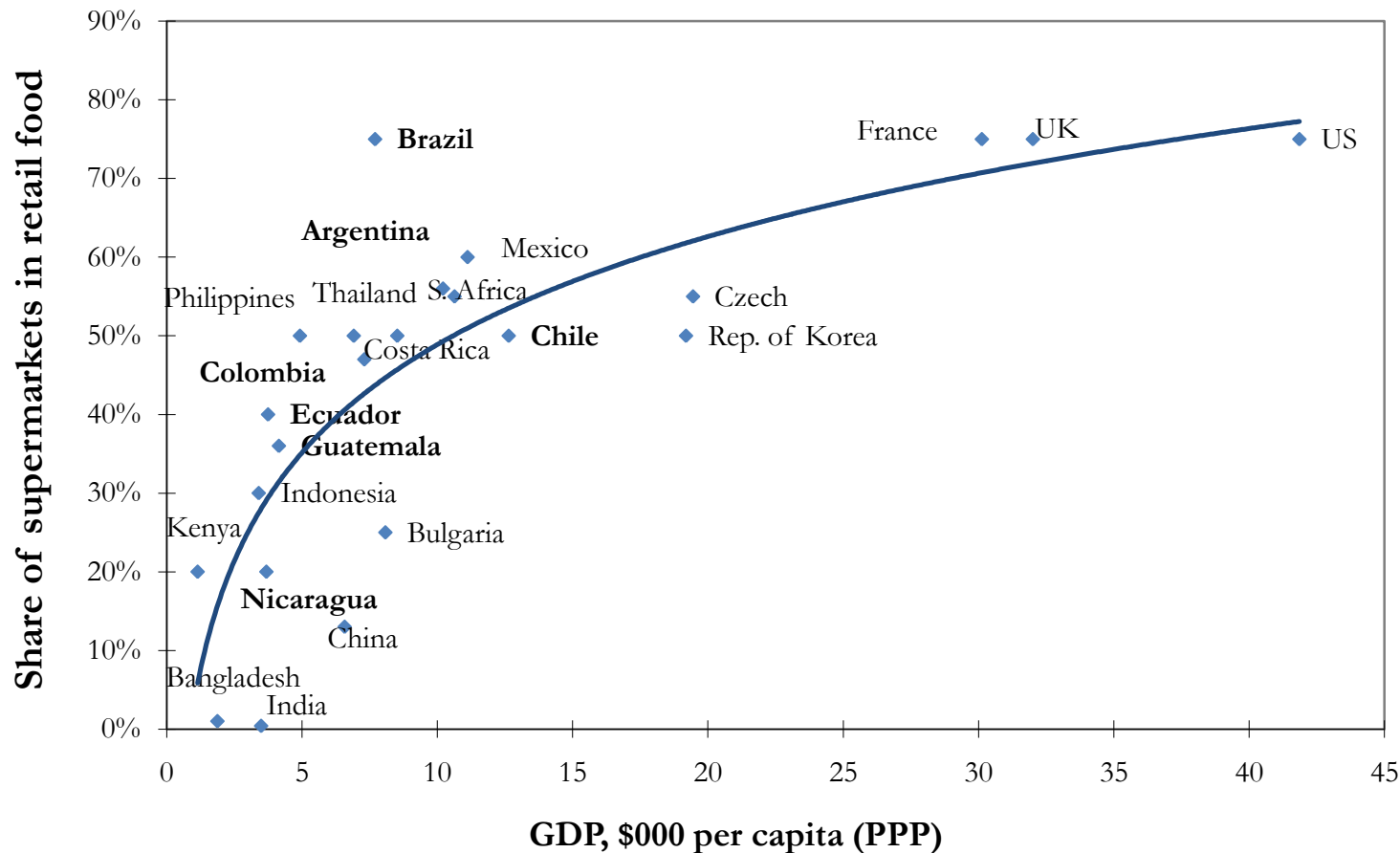
2.2: Improve agriculture income by linking farmers to markets

As GDP per capita increases, agriculture's share of GDP declines, but the share of agri-business increases



Source: World Development Report 2008, pg. 135.

Forecasting the “Supermarket Revolution” in Latin America



Source: Reardon and Berdegue 2006. Referenced in World Development Report 2008, pg. 125.

Linking farmers to markets and strengthening value chains



- Reduce transaction costs
- Expand infrastructure
- Strengthen producer organizations
- Expand business models for market integration
- Improve rural financial institutions
- Overall focus on organization to integrate smallholders into higher value chains

2.3: Improved management of volatility

Reduce risk and vulnerability

- Public service mechanisms for delivery of catastrophic coverage at the macro-level for small producers.
- Financial mechanisms at both macro- and micro-levels to cope and transfer exogenous system risk (price and climate shocks) to other sectors or to international markets.
- Better management of national food imports

2.4: Facilitate entry and exit from agriculture, and increase rural non-farm income

Key areas: land markets, local investment climate, and skills

- Improve land markets
 - Rental and sales markets
 - Code of conduct for foreign investment
 - Safety nets to reduce distress sales
- Improve the local investment climate
 - Rural investment climate assessments
- Upgrade skills
 - Vocational training
 - Private sector links to curricula development

2.5: Responding to climate change

Mitigation and Adaptation

Facilitate *adaptation* to climate change

- Enhance weather monitoring/forecasting to improve risk management
- Improve social protection programs (especially CCTs) to help protect against weather shocks and avoid poverty traps
- Maintain and protect ecosystems
- Mitigate the effects of, and recover from natural disasters
- Capture and store water, regulate flows, control floods
- Strengthen public health systems to monitor and respond to outbreaks
- Continue evolution of agricultural research and extension

Facilitate *mitigation* to climate change

Reduce GHG emissions in areas of comparative advantage

- Manage methane emissions from intensive livestock production and agro-industries
- Introduce use of renewable energy sources in agri-industries and energy efficient technologies*

Reduce emissions from deforestation

- Avoid “tragedy of the commons” by assigning clear land ownership or management responsibility
- Take advantage of innovative financing instruments for forest conservation
- Complementary agriculture investments

Roles of WBG Institutions



- 1.8 bn (44 percent of FY06-08 commitments)
- Direct financing of public investment in agriculture



- 1.1 bn (27 percent)
- Direct financing of public investment in agriculture
 - Technical assistance



- 1.2 bn (29 percent)
- Working capital facilities
 - Direct financing in agribusiness firms



- 126 million (<1 percent)
- Guarantees, mediation services, TA on FDI