



Responsible Livestock Workshop

Regional Perspectives: Latin America and Caribbean



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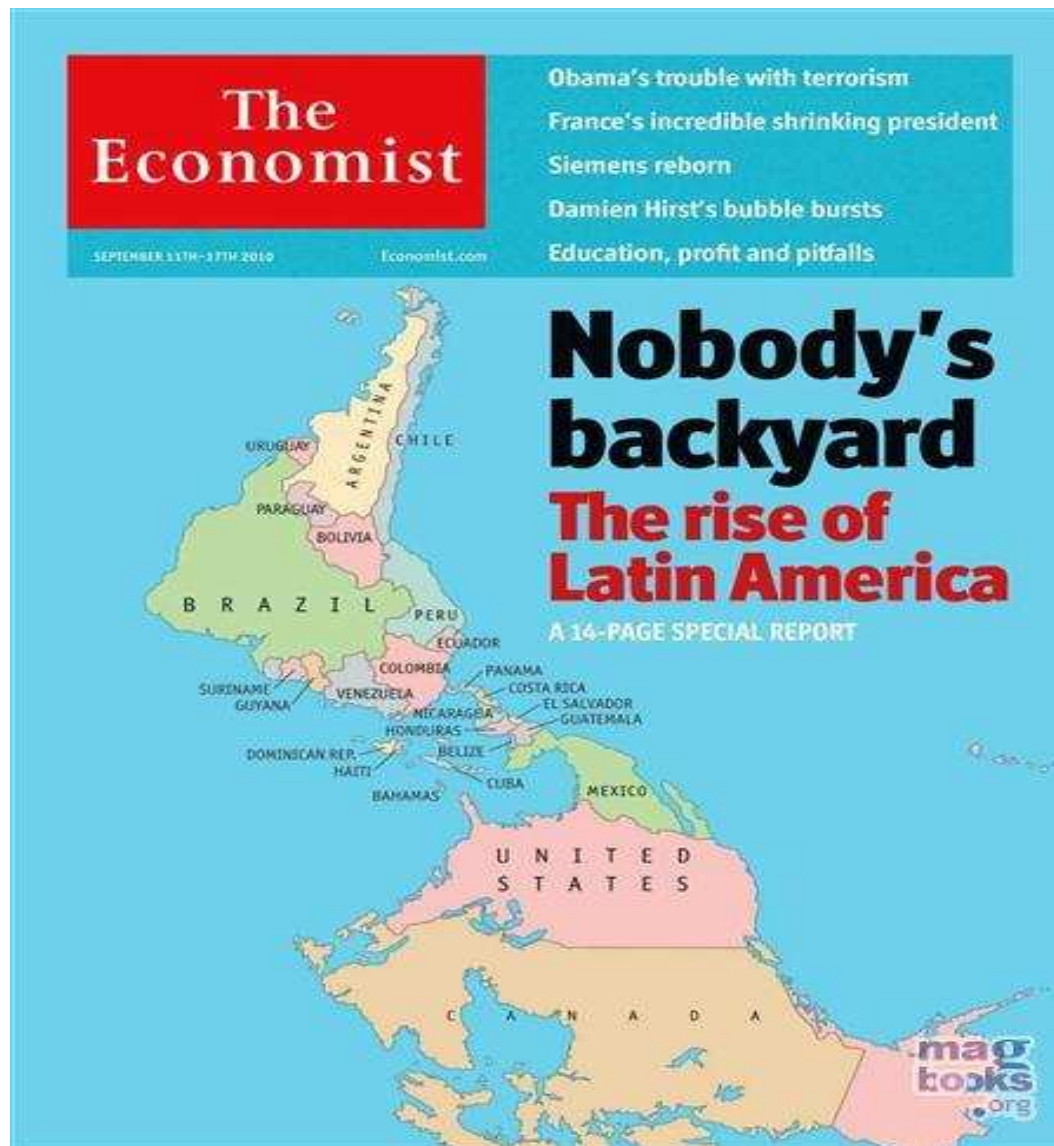
Outline

- Social and economic contribution of livestock
- Available resources and use for livestock production
- Main challenges and opportunities
- Regional priorities for sustainable livestock production

....high economic growth rates

MERCOSUR

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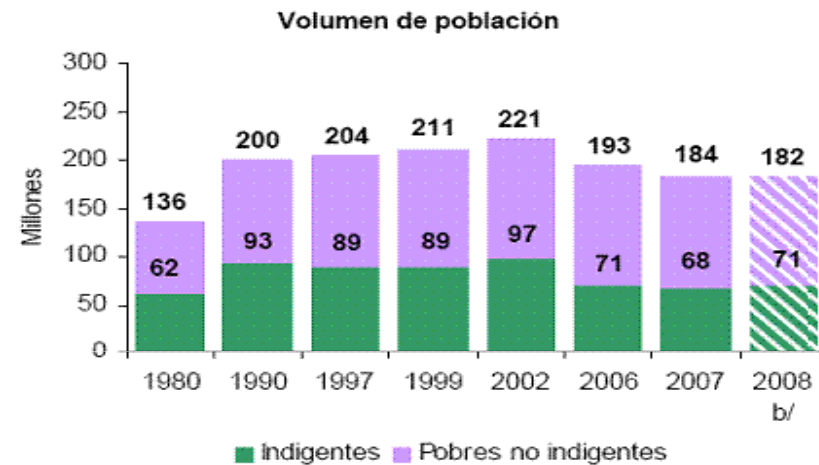
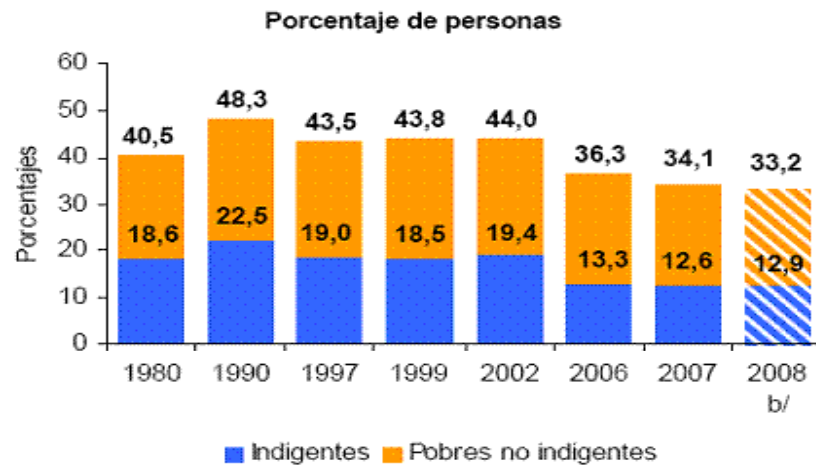
CAFTA

CARICOM

NAFTA



...however, LAC still has high levels of poverty



Fuente: Comisión Económica para América Latina y el Caribe (CEPAL), sobre la base de tabulaciones especiales de las encuestas de hogares de los respectivos países.

a/ Estimación correspondiente a 18 países de la región más Haití. Las cifras colocadas sobre las secciones superiores de las barras representan el porcentaje y número total de personas pobres (indigentes más pobres no indigentes).

b/ Proyecciones.

60% of poverty in rural areas

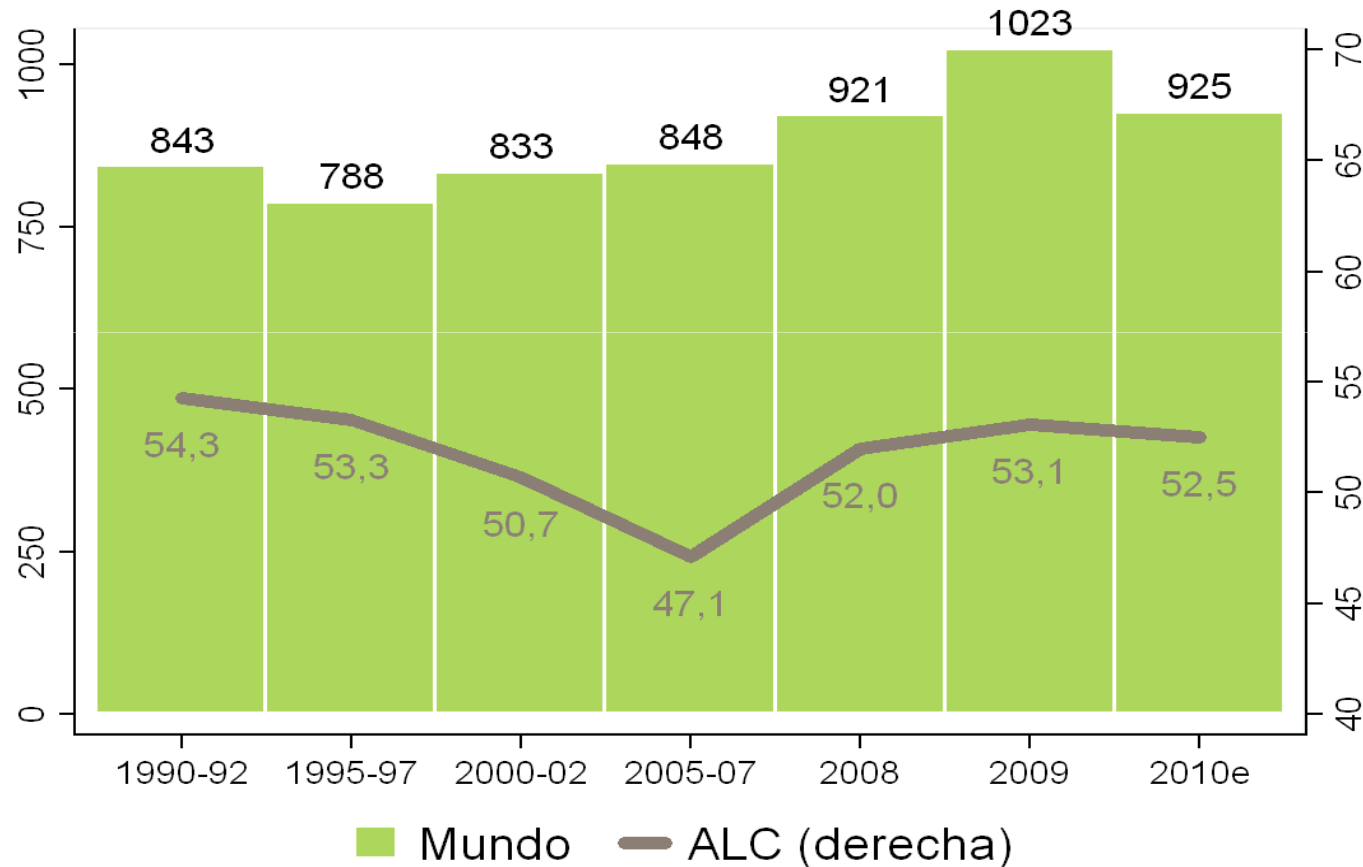
Fuente: Cepal



....high levels of undernutrition

Evolución del número de subnutridos en el mundo y en América Latina y el Caribe, 1990-92 a 2010

Millones de personas



Fuente: FAO, 2010a

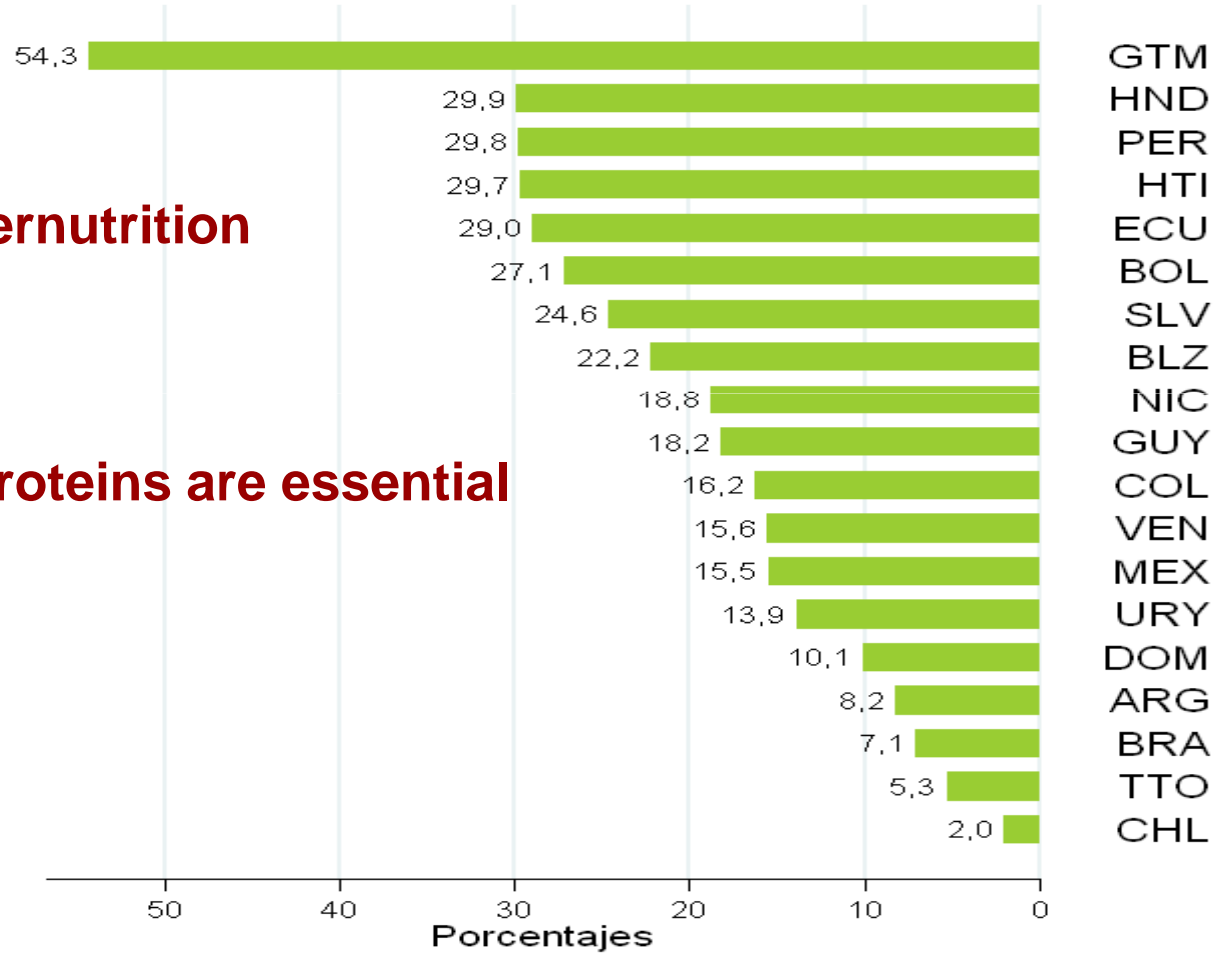


Desnutrición crónica en niños menores de 5 años en América Latina, 2000-2009*

Desnutrición Crónica
talla/edad

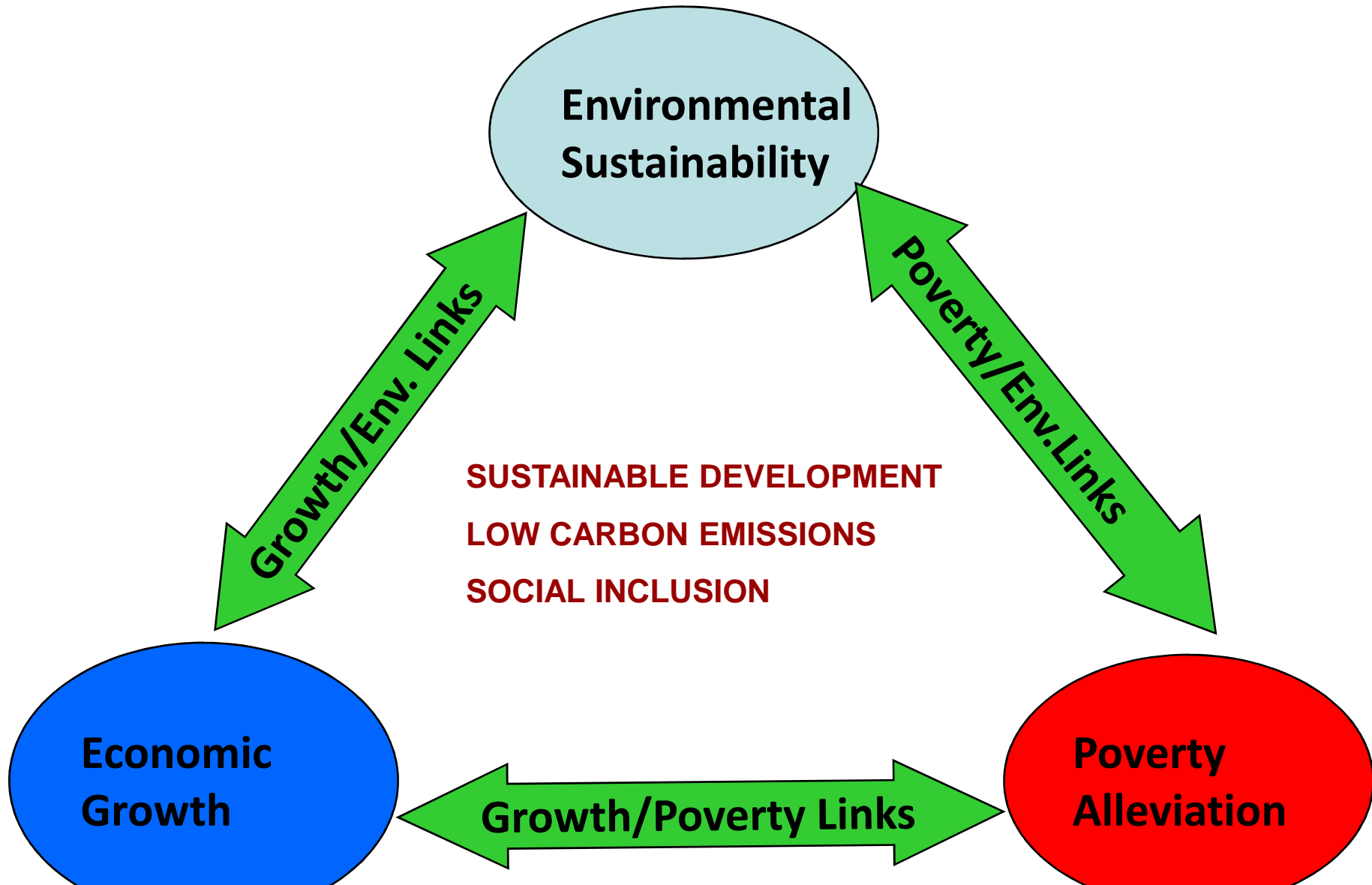
...child undernutrition

...animal proteins are essential



Fuente: Global Health Observatory. OMS, 2010.

The Critical Triangle of Development Objectives





....huge contribution of the livestock sector

Annual growth: ~4.0%

Share of Livestock GDP in Ag GDP: 45 %

Total production value: 79 billions USD / year

Cattle: 62 % (beef and dairy)

Poultry: 24 % (meat and eggs)

Swine: 7 %



First world's beef exporter

Brasil, Uruguay, Paraguay, Argentina



First world's poultry meat exporter

Brasil, Argentina, Chile



Third world's pork exporter

Brasil, Chile, Mexico

....but contribution is not equal across LAC



...growing importance of trade of livestock products from the region

Trade as a share of total production

Product	1886-1988 %	2004-2006 %
Beef	7.2	18.2
Pig meat	0.5	14.3
Poultry meat	5.4	18.3
Milk	0.7	5.6

LAC Livestock exports in 2009

Brasil Beef USD 4.1 B

Poultry meat USD 5.3 B

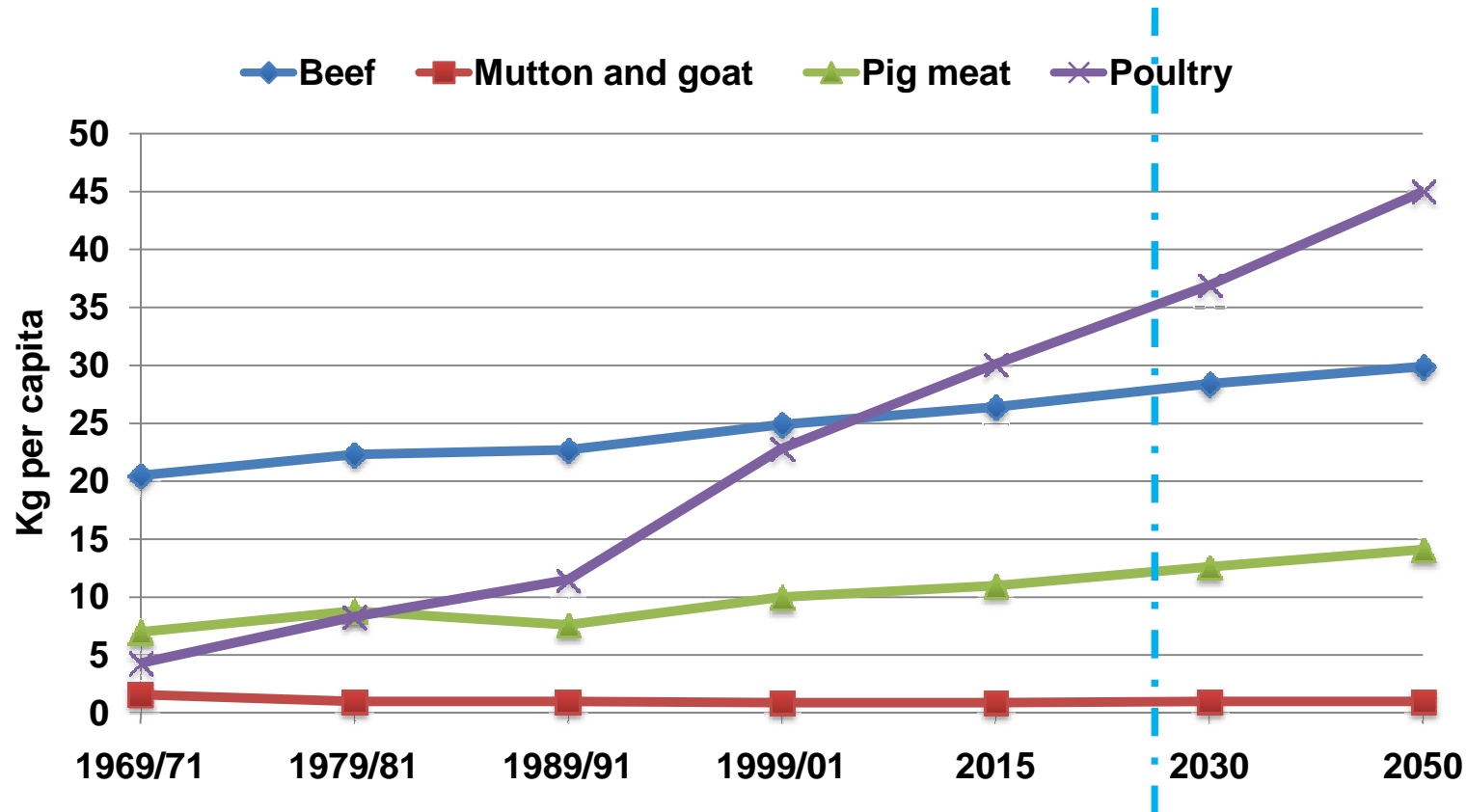
Uruguay Beef USD 1.2 B

Paraguay Beef USD 531 M

..beef trade rate faster than production growth rate



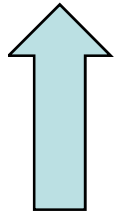
...expected increased meat consumption in Latin America



...largest increase in poultry meat consumption

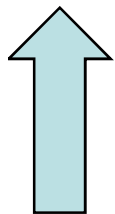
LAC Livestock equation

Drivers



- **Population growth: 1,7% year + 250 M people in LAC 2050**
- **Urbanization: 78% people in cities in 2030**
- **Increased income (2,9% year) Increased internal demand and external trade**

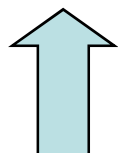
Risk



increased pressure on natural resources

Challenge

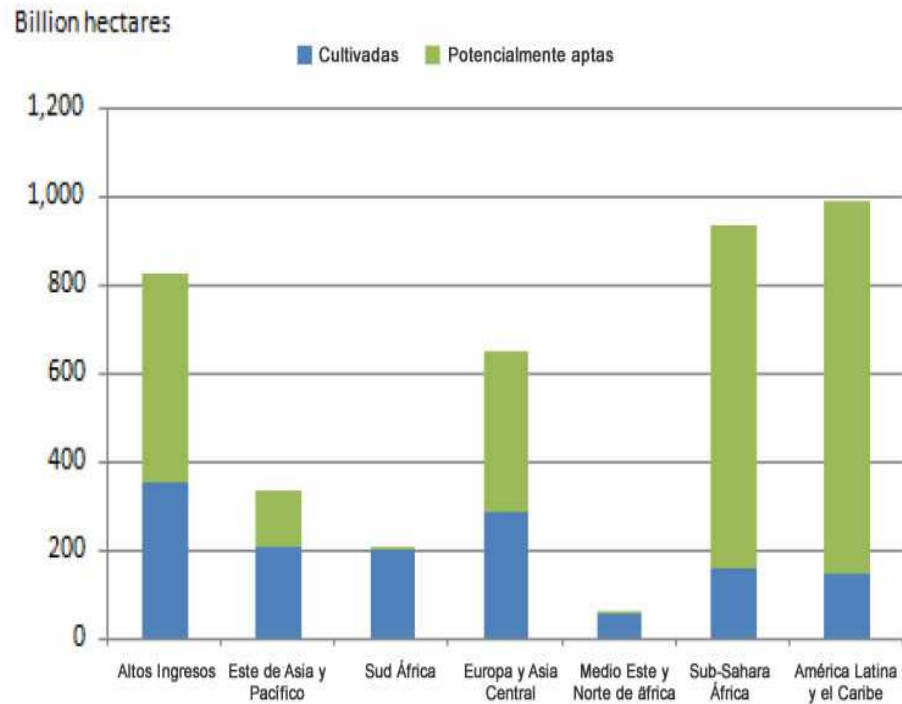
how to produce more with less



efficiency!

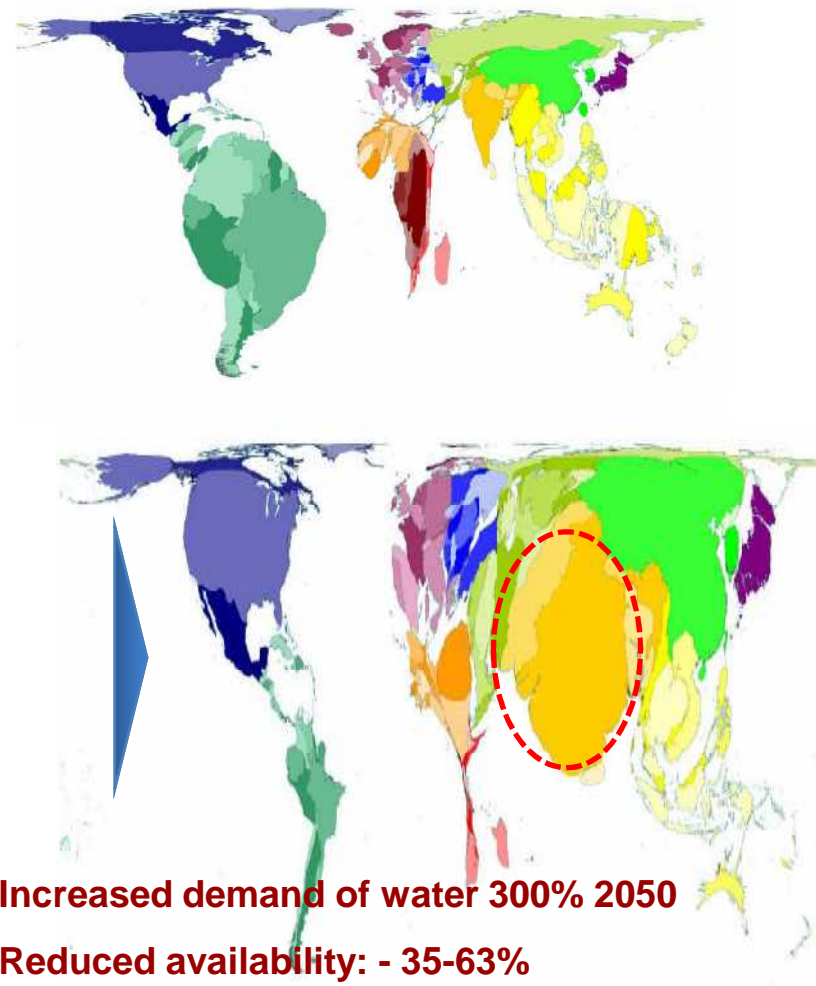
...available land and water

Tierras cultivadas y potencialmente aptas



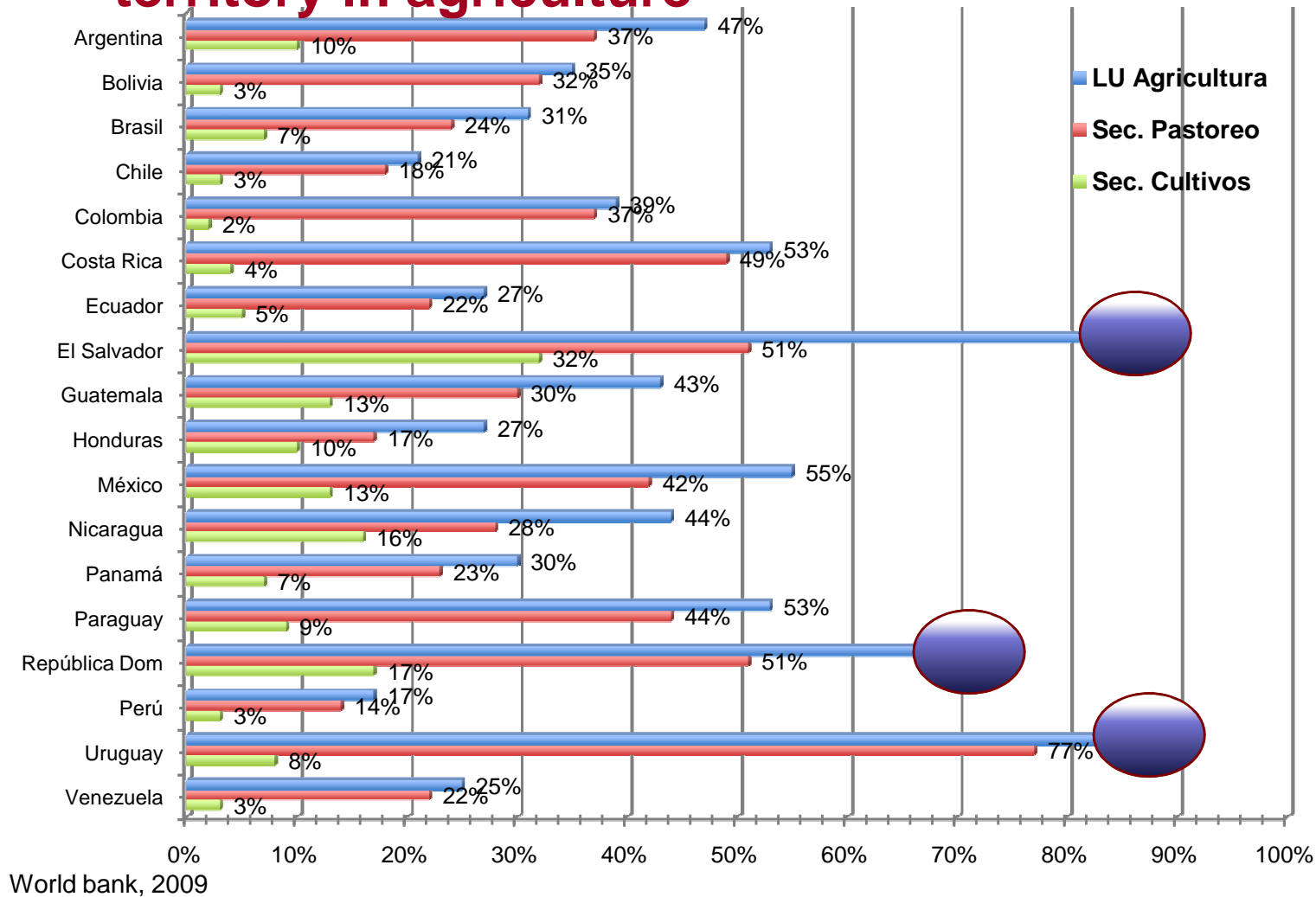
Source: FAO.

**LAC Agriculture: 96% no irrigation (secano)
87% en América del Sur**



LAC land use

...50% of LAC countries use more than 40% of their territory in agriculture



**557 M ha
pastures**

**46 M ha
feedcrops**

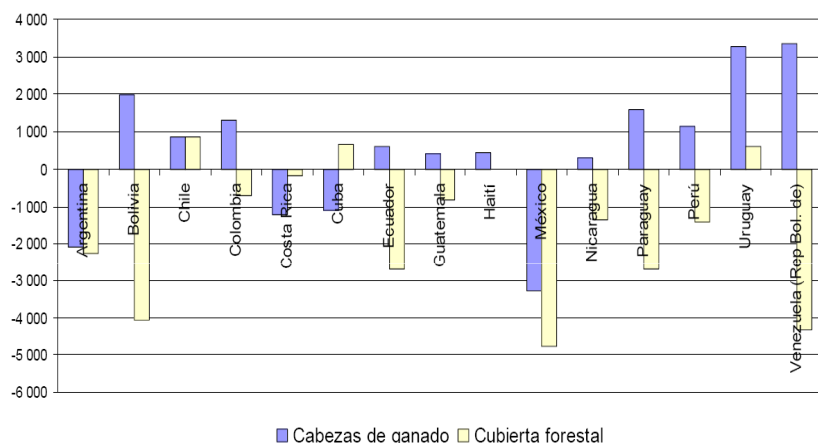
...70% pastures

....land use changes

Gráfico III.8

AMÉRICA LATINA Y EL CARIBE (15 PAÍSES): EVOLUCIÓN DEL GANADO BOVINO Y DE LA CUBIERTA FORESTAL, 1990-2005

(En miles de cabezas de ganado y miles de hectáreas)

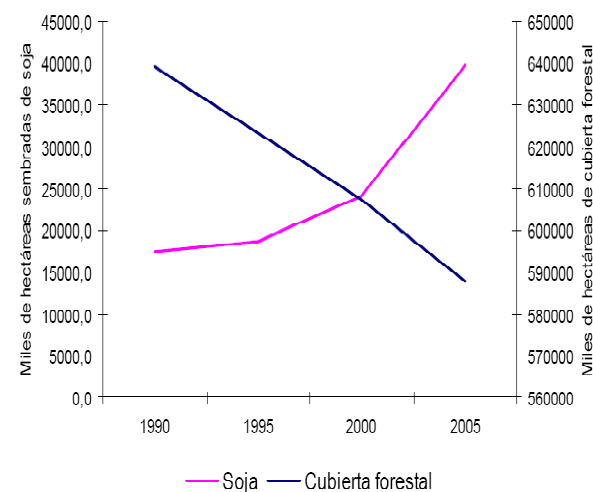


Fuente: Bases de datos estadísticos de la FAO (FAOSTAT).

Gráfico IV.13

PRINCIPALES PRODUCTORES DE SOJA: EVOLUCIÓN DE LA SUPERFICIE SEMBRADA DE SOJA Y LA CUBIERTA FORESTAL, 1990-2005

(En miles de hectáreas)



Fuente: Organización de las Naciones Unidas para la Agricultura y la Alimentación (FAO), *Situación de los bosques del mundo*, 2007, Roma, 2007; y Bases de datos estadísticos de la FAO (FAOSTAT).

Forest to pastures: 2.4 M ha year (decreasing in last five years)

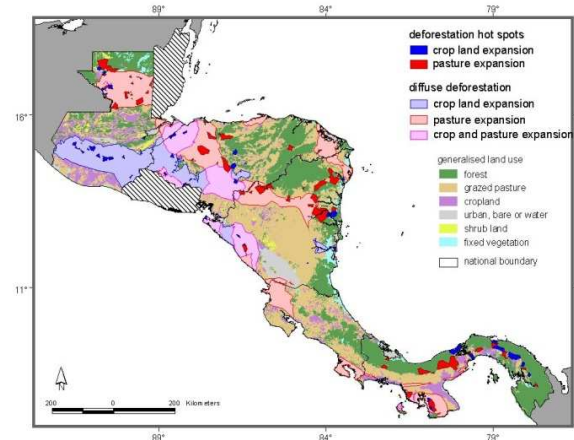
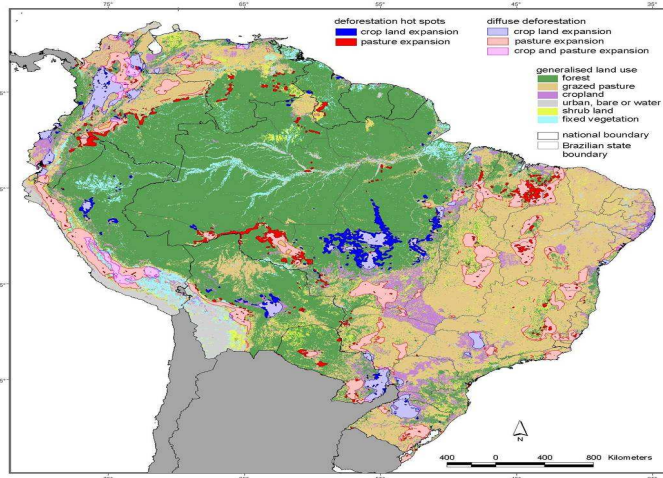
Forest to crops: 0.5 M ha year (increasing)

2.4 billion tons CO2 year



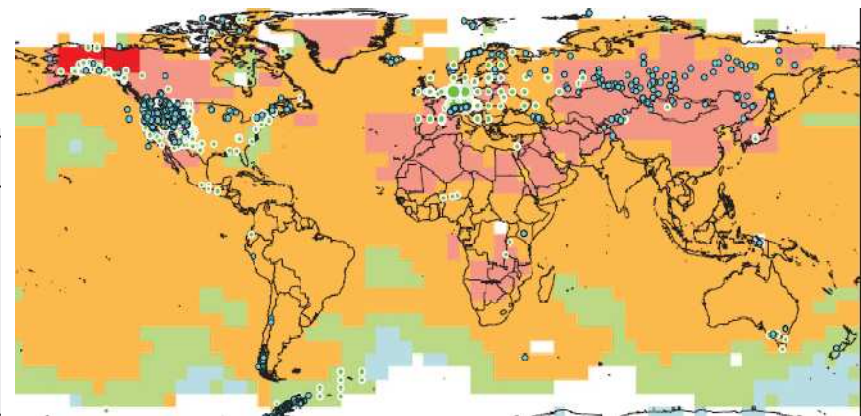
...Increased risks

Land degradation and climate change



70% of pasture land degraded

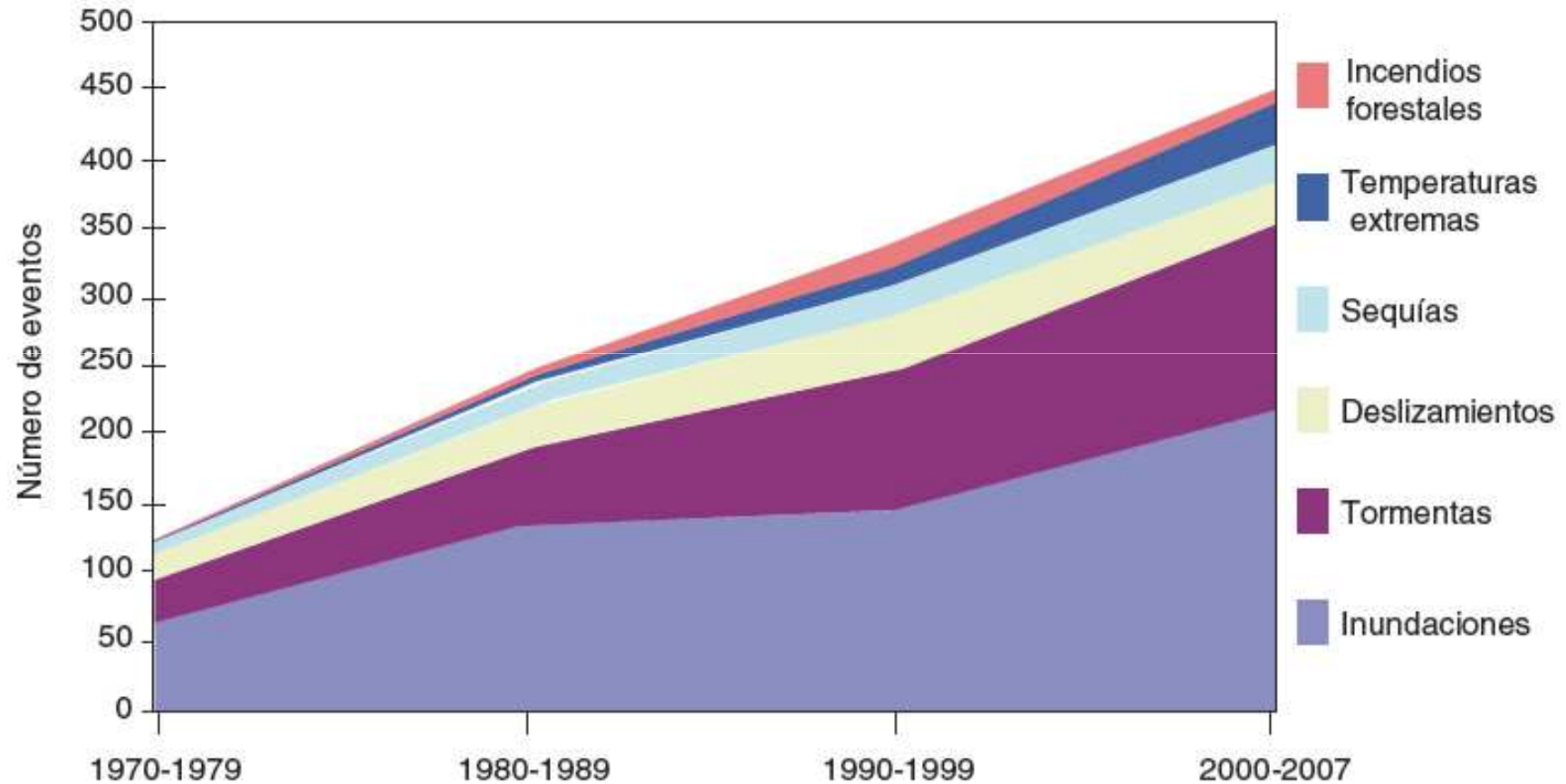
País	2050	2100
Chile	20,8	41,2
Ecuador	28,9	57,2
Bolivia (Estado Plurinacional de)	11,2	22,2
Paraguay	33,5	66,3
Perú	31,3	62,0



Cepal, 2010



...increased frequency and intensity of natural disasters

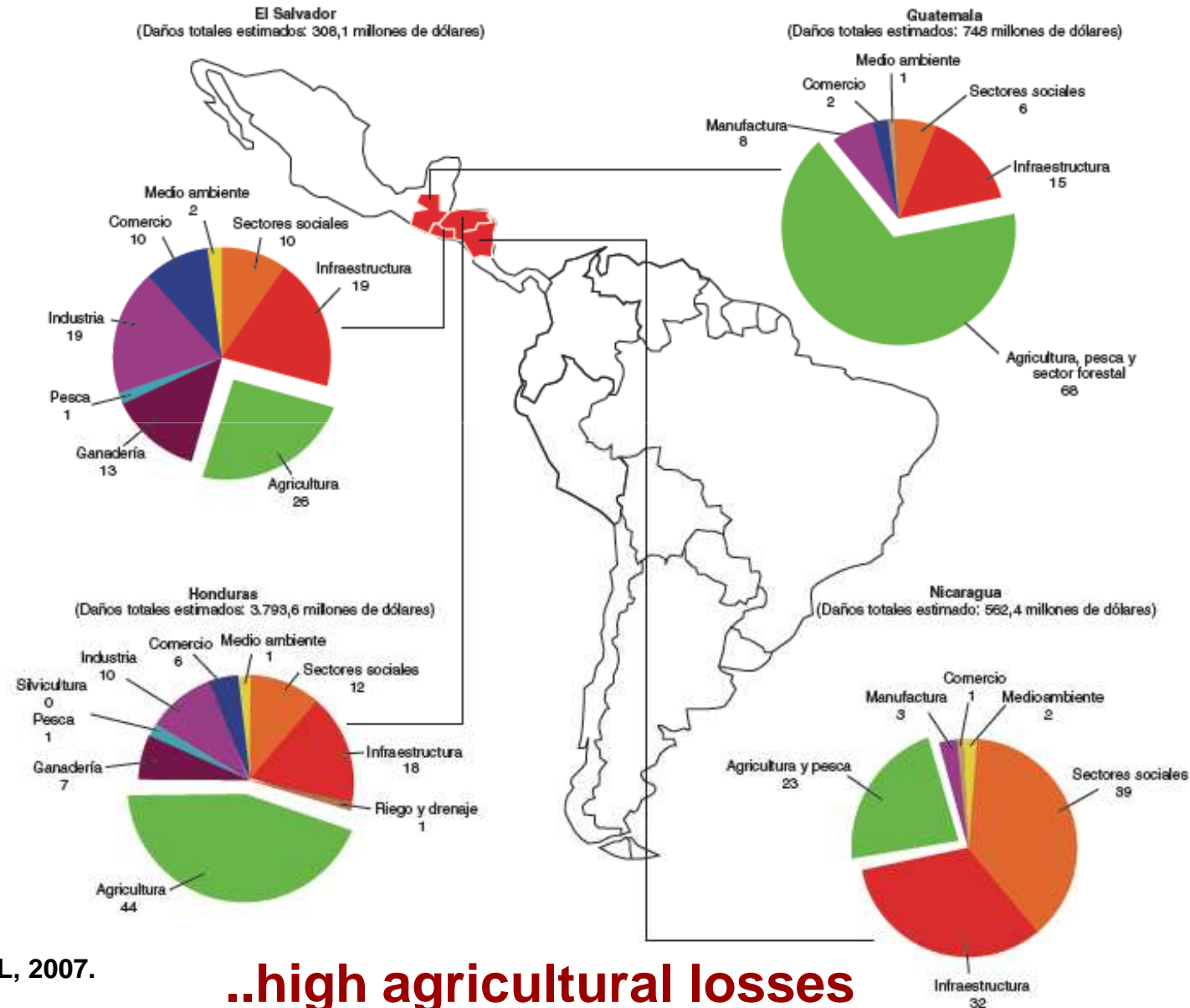


Flooding:
Paraguay, Uruguay, Argentina, Bolivia, Colombia.
Hurricanes in CA

Fuente: CEPAL,2010.



Central American countries severely affected by hurricanes

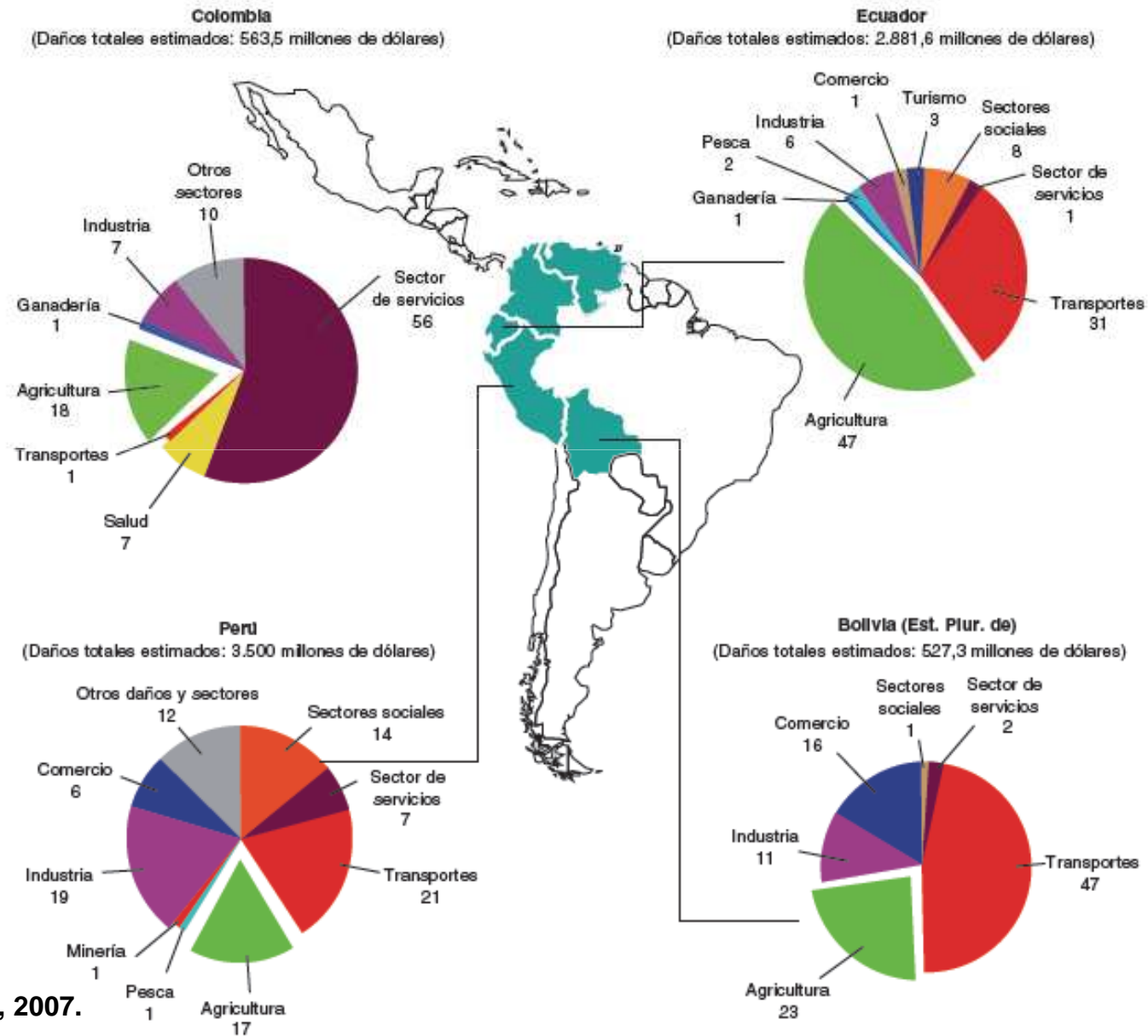


Fuente: CEPAL, 2007.

..high agricultural losses



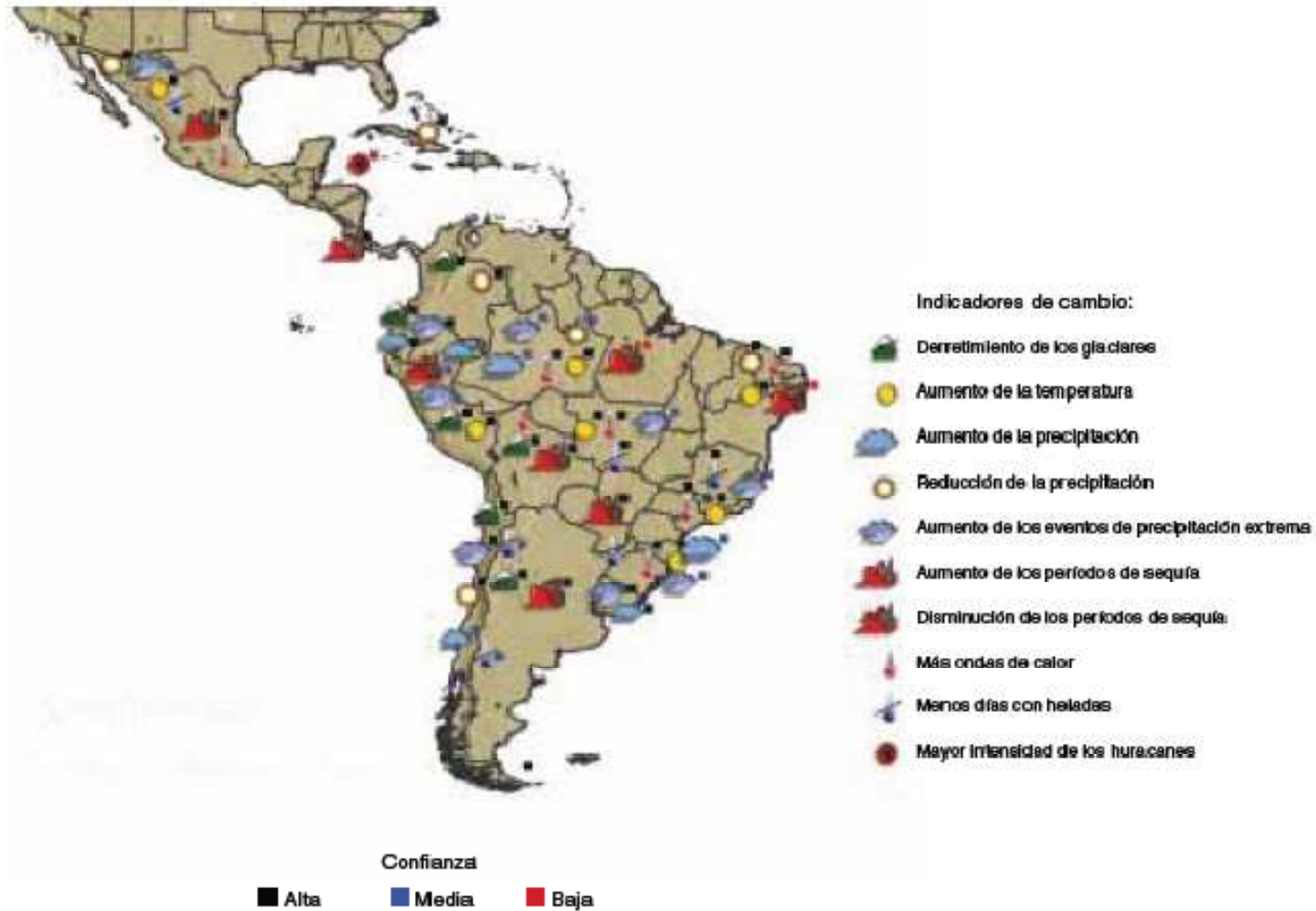
Andean countries severely affected by the NIÑO (drought)



Fuente: CEPAL, 2007.



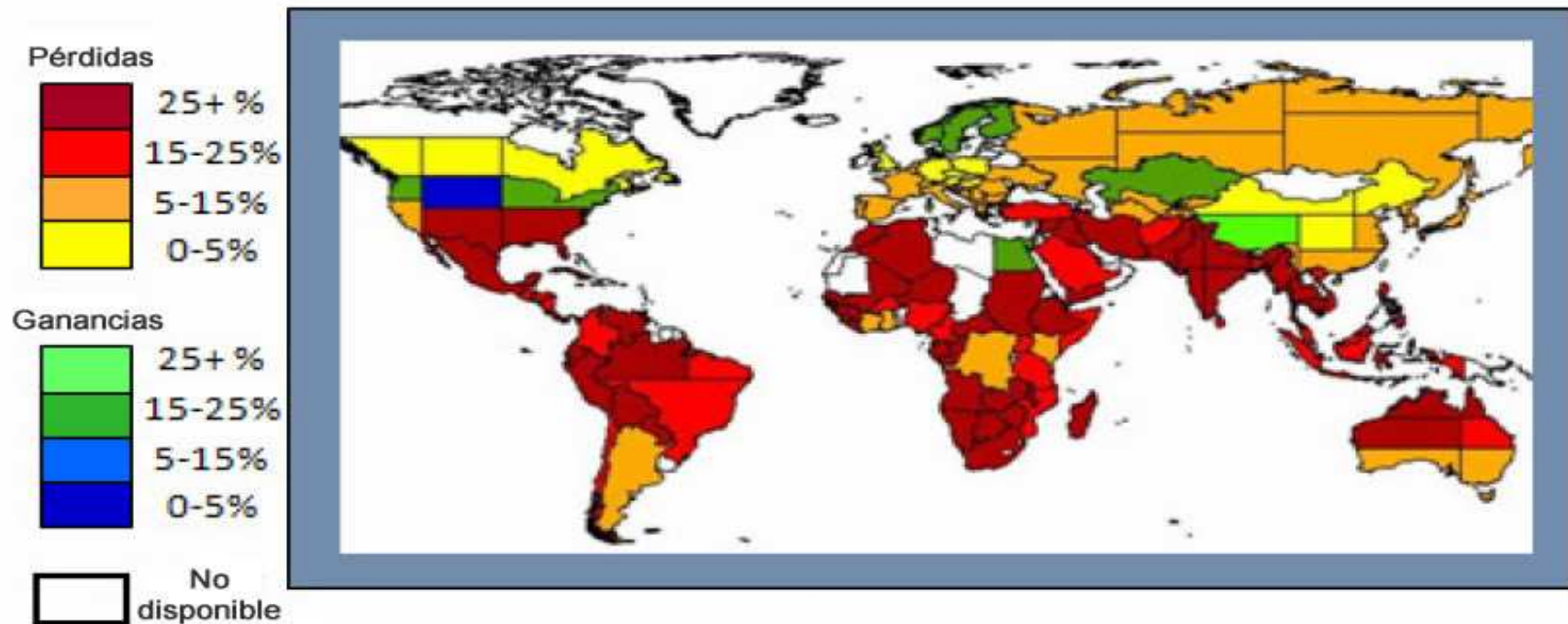
...high probability of becoming worse



Fuente: CEPAL, 2010.

...severe impacts on agriculture

Impacto Potencial en la Producción Agrícola debido al Cambio Climático - Sin el efecto de la fertilización de carbono



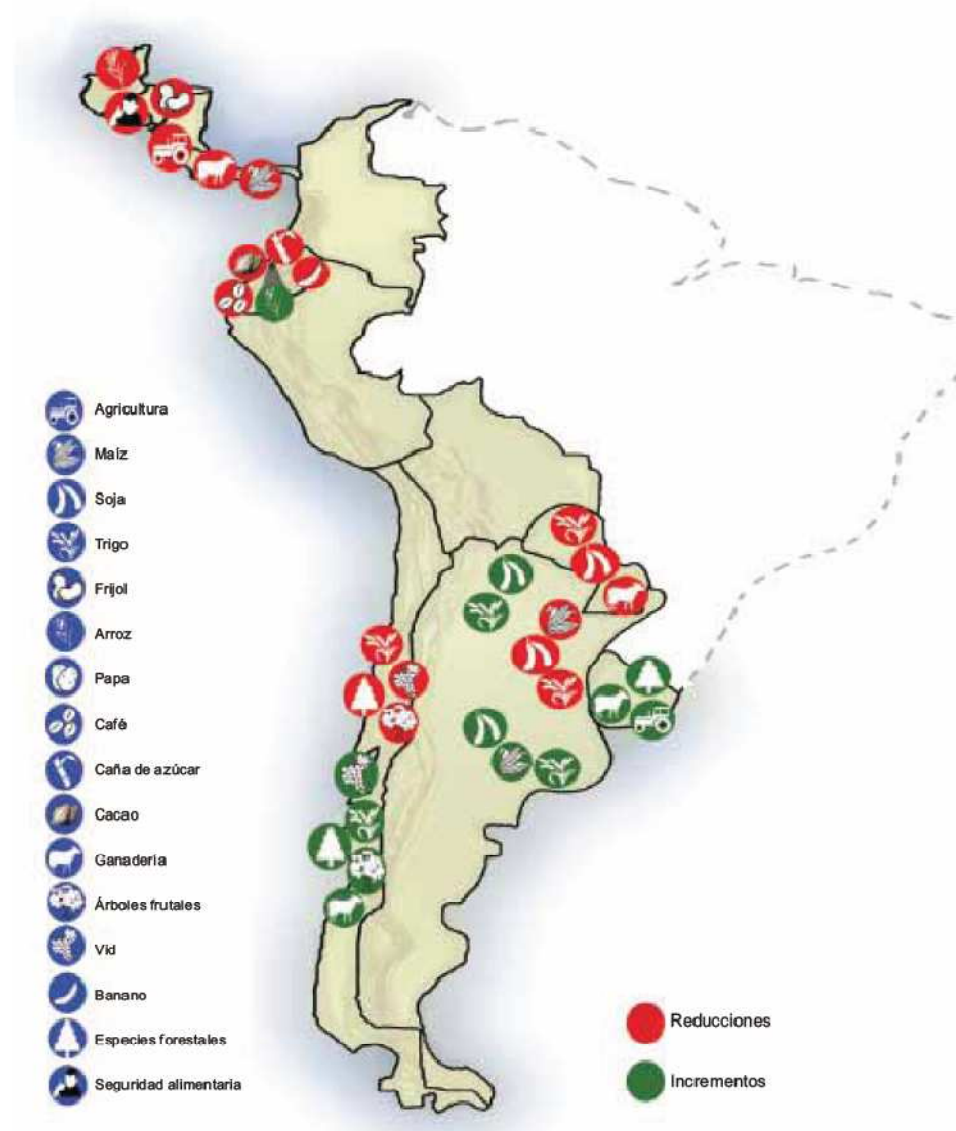


....expected impacts of climate change in the agricultural sector

Estimated productivity reductions by 2100

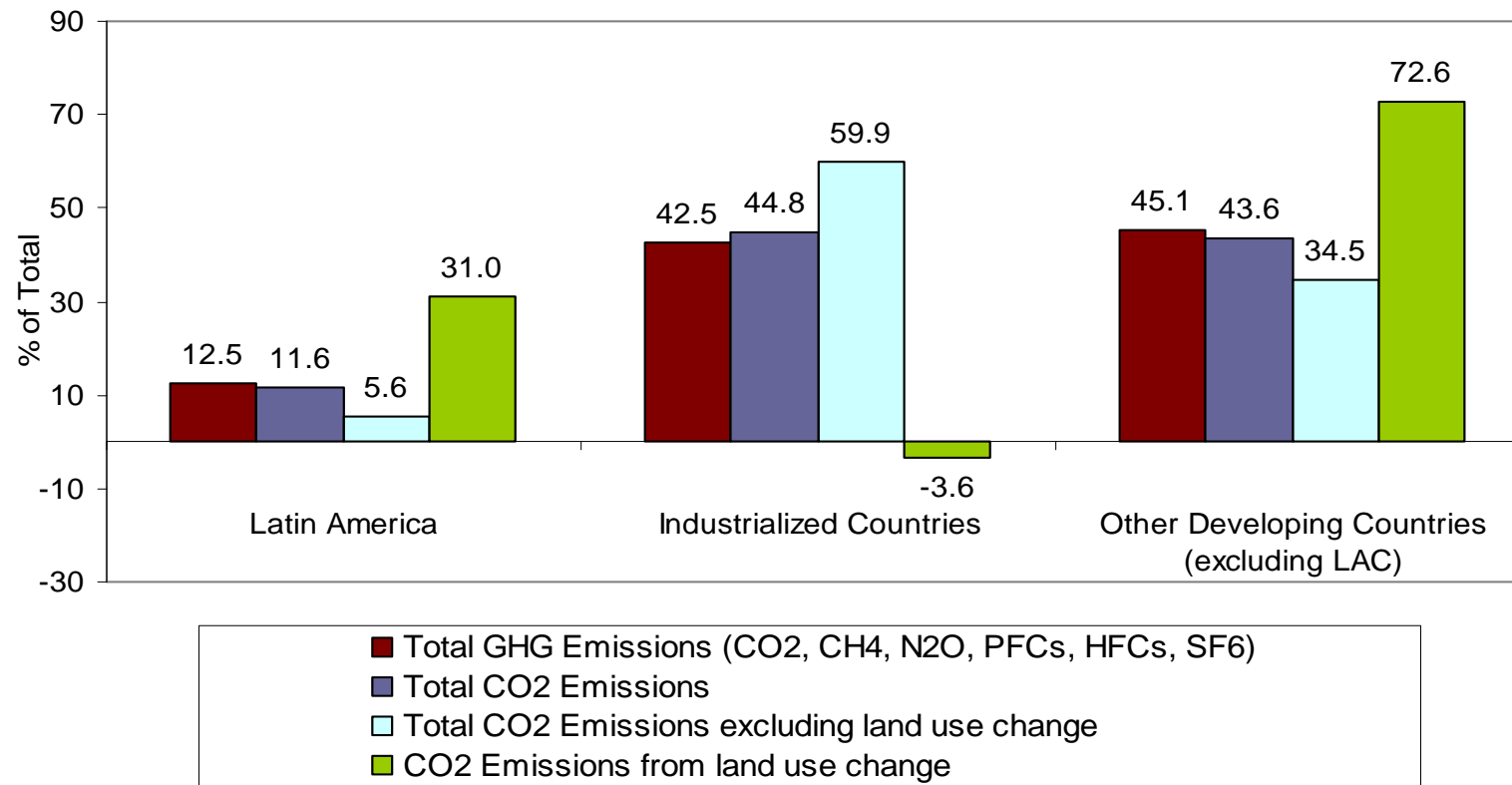
Central America: 12-29%
South America: 12-50%

Mendelsohn (2008)



Fuente: CEPAL, 2010.

Total GHG and CO2 emissions of LAC region are lower than in other regions

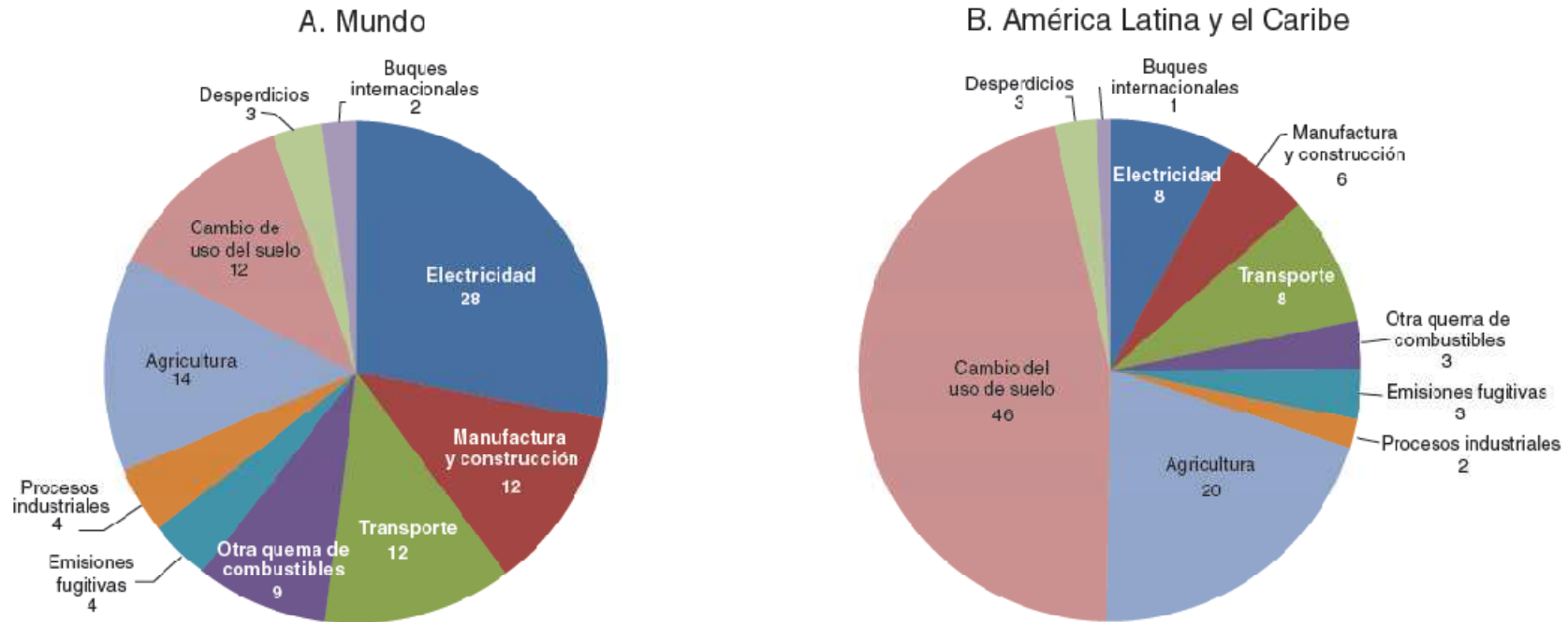


Source: Climate Analysis Indicators Tool (CAIT), Version 5.0. Washington, DC: World Resources Institute (WRI), 2008.



...but CO2 emission from agriculture and land use changes are higher

EMISIONES DE GASES DE EFECTO INVERNADERO POR SECTOR, 2005
(En porcentajes)

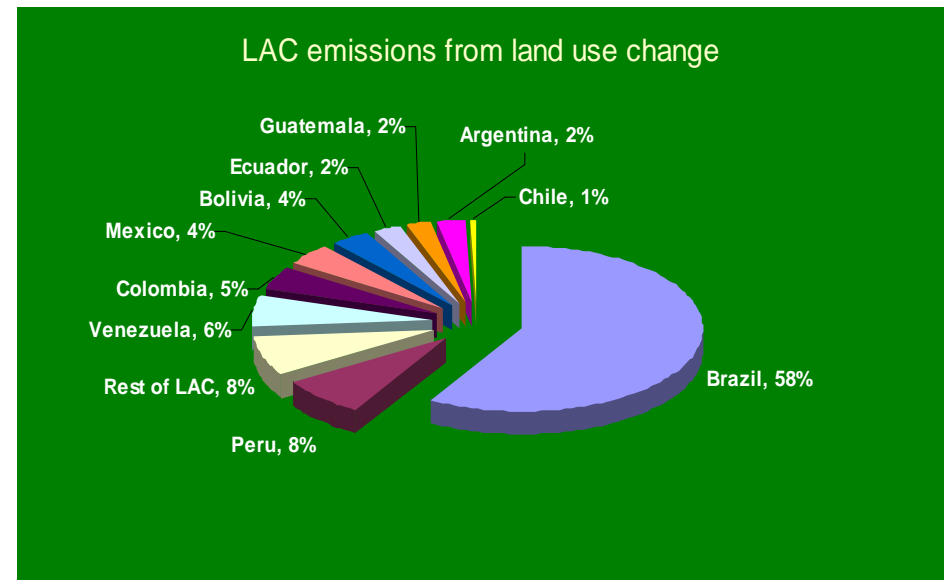
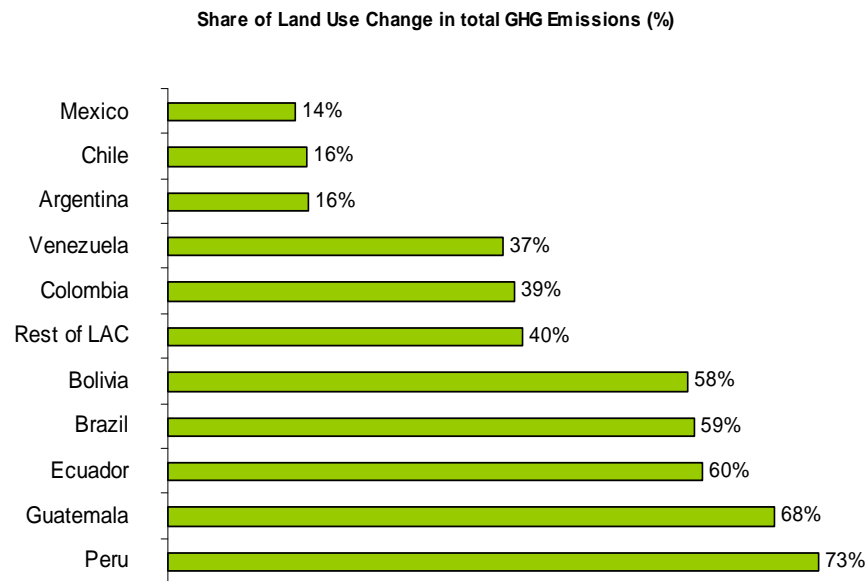


...so, LAC is questioned for land use change emissions and emissions by unit of product

Fuente: CEPAL, 2010.

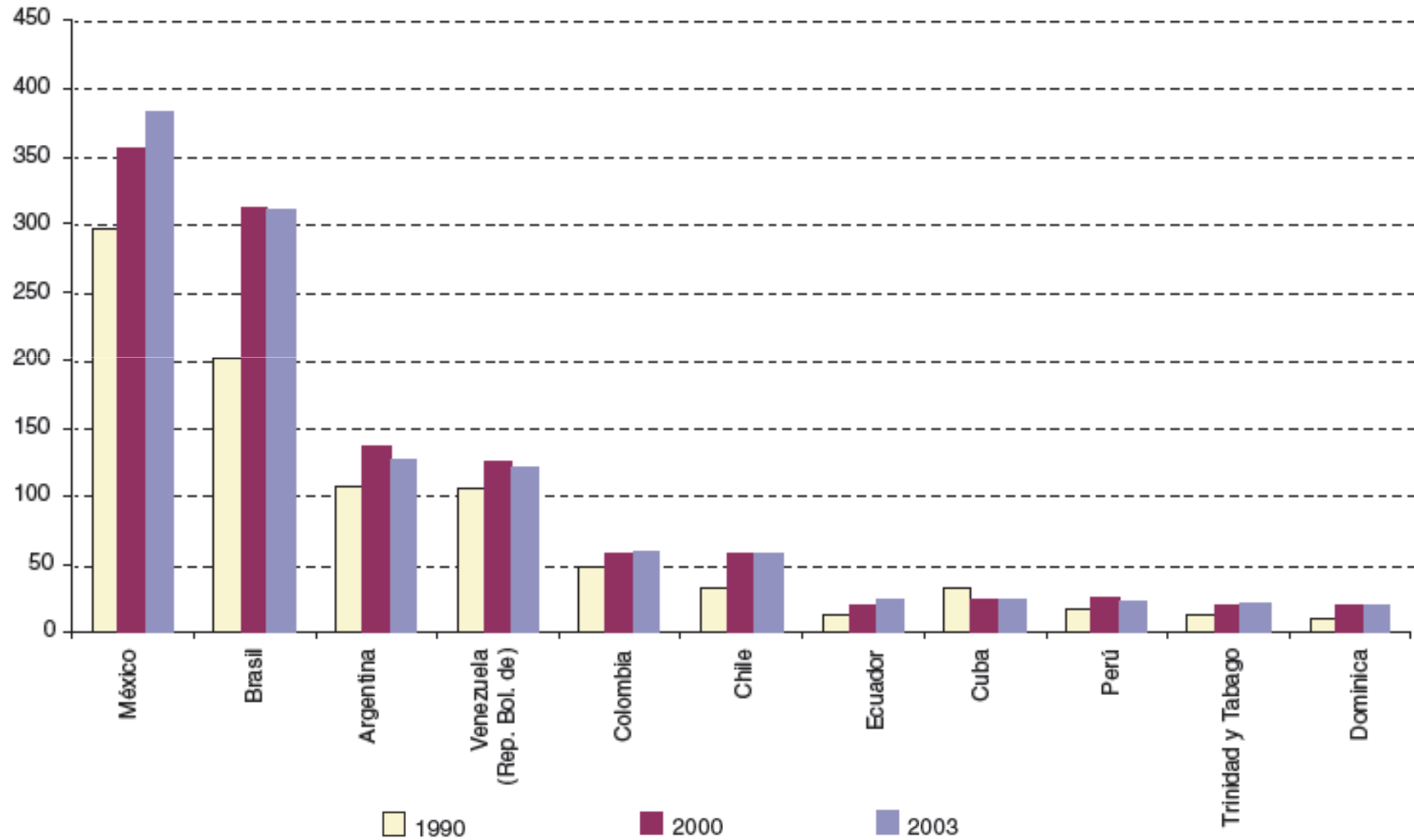
...highest LUC emissions in Brazil, but other countries LUC emissions also are high as share of their total GHG emissions

Share of emissions from LULUC by LAC Country (2000)





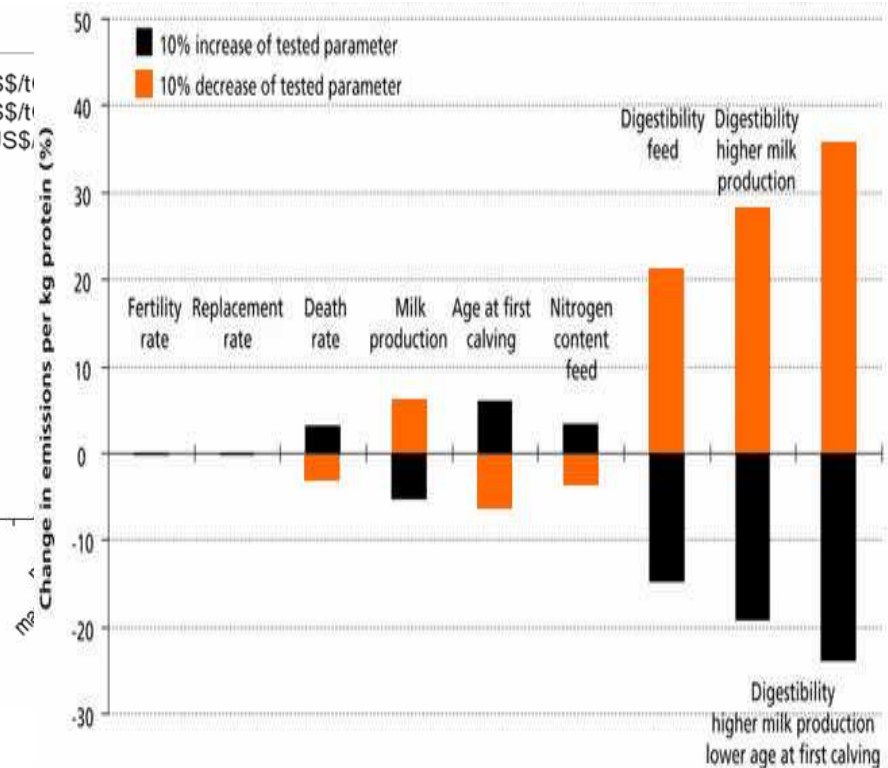
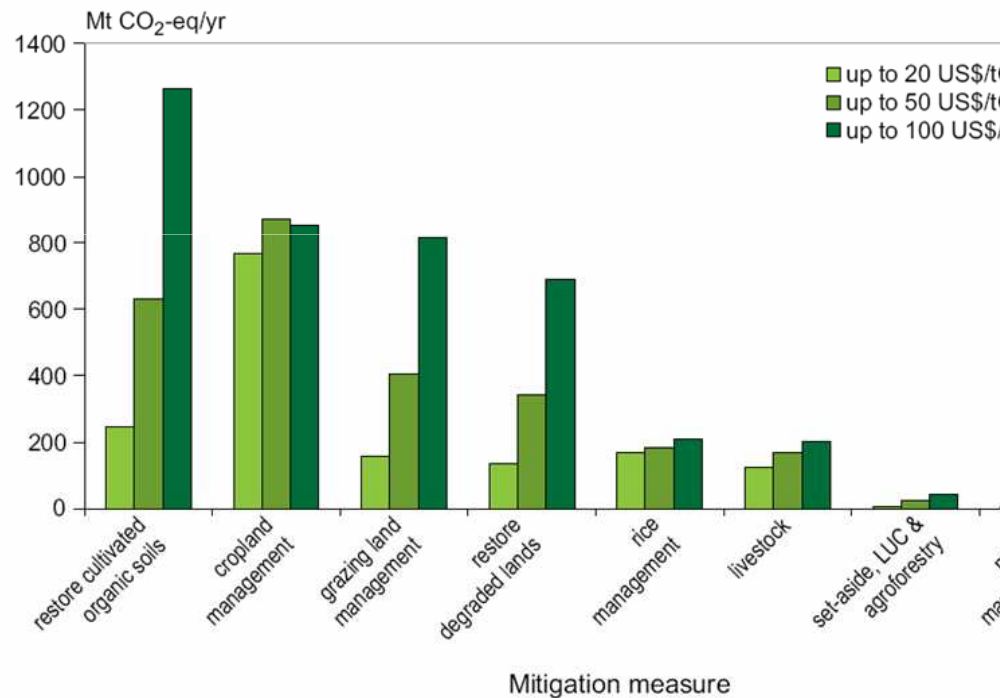
...Mexico, Brasil, Argentina, Venezuela...more CO2 emissions without including land use change (En millones de toneladas de CO2)



Fuente: Instituto de los Recursos Mundiales (WRI), 2008.



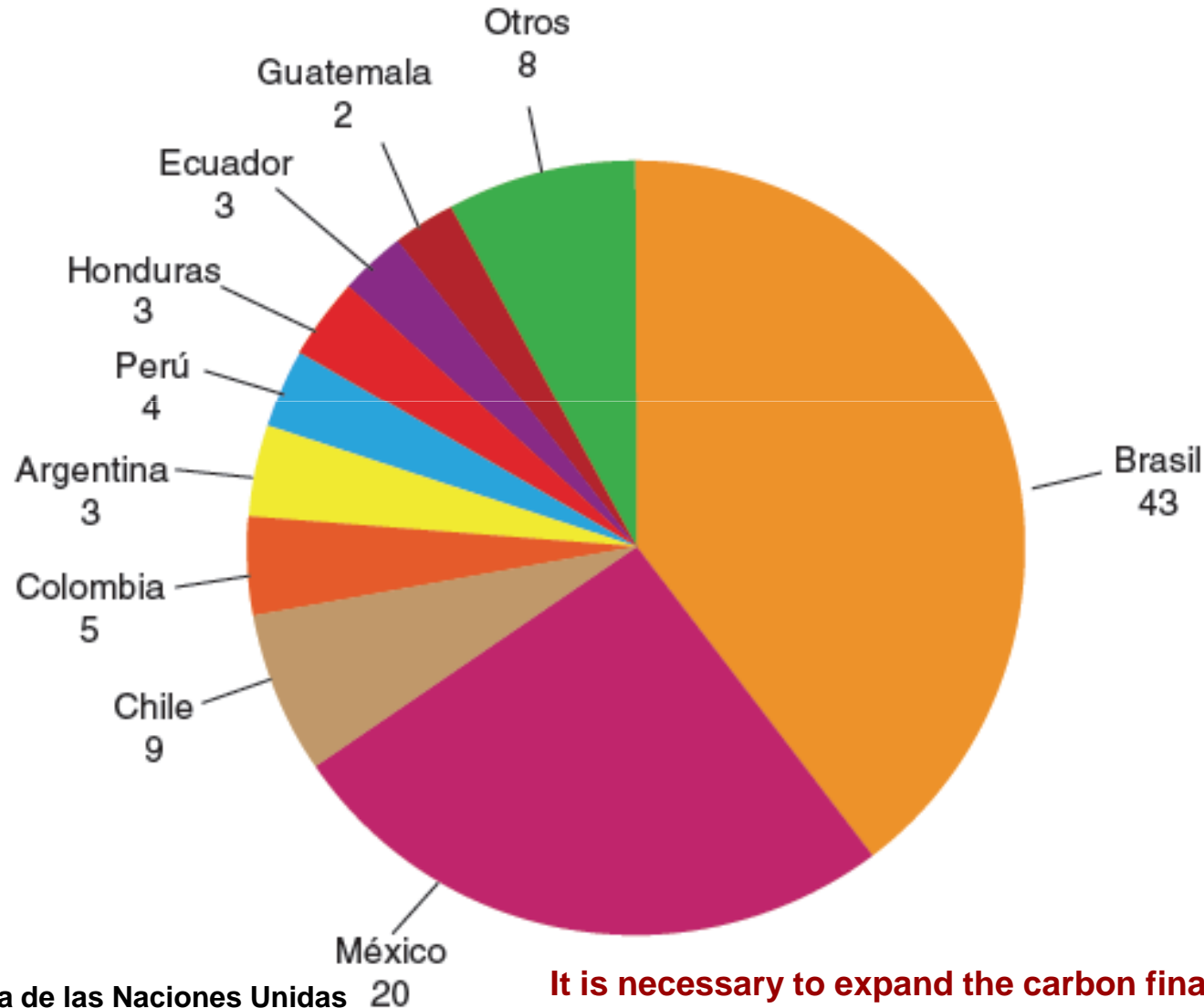
..however, LAC has a great potential for reducing emissions from LULUC



..recovering degraded pastures, increasing production efficiency and avoiding deforestation



LAC countries are already using CDM but big differences among countries (En porcentaje)

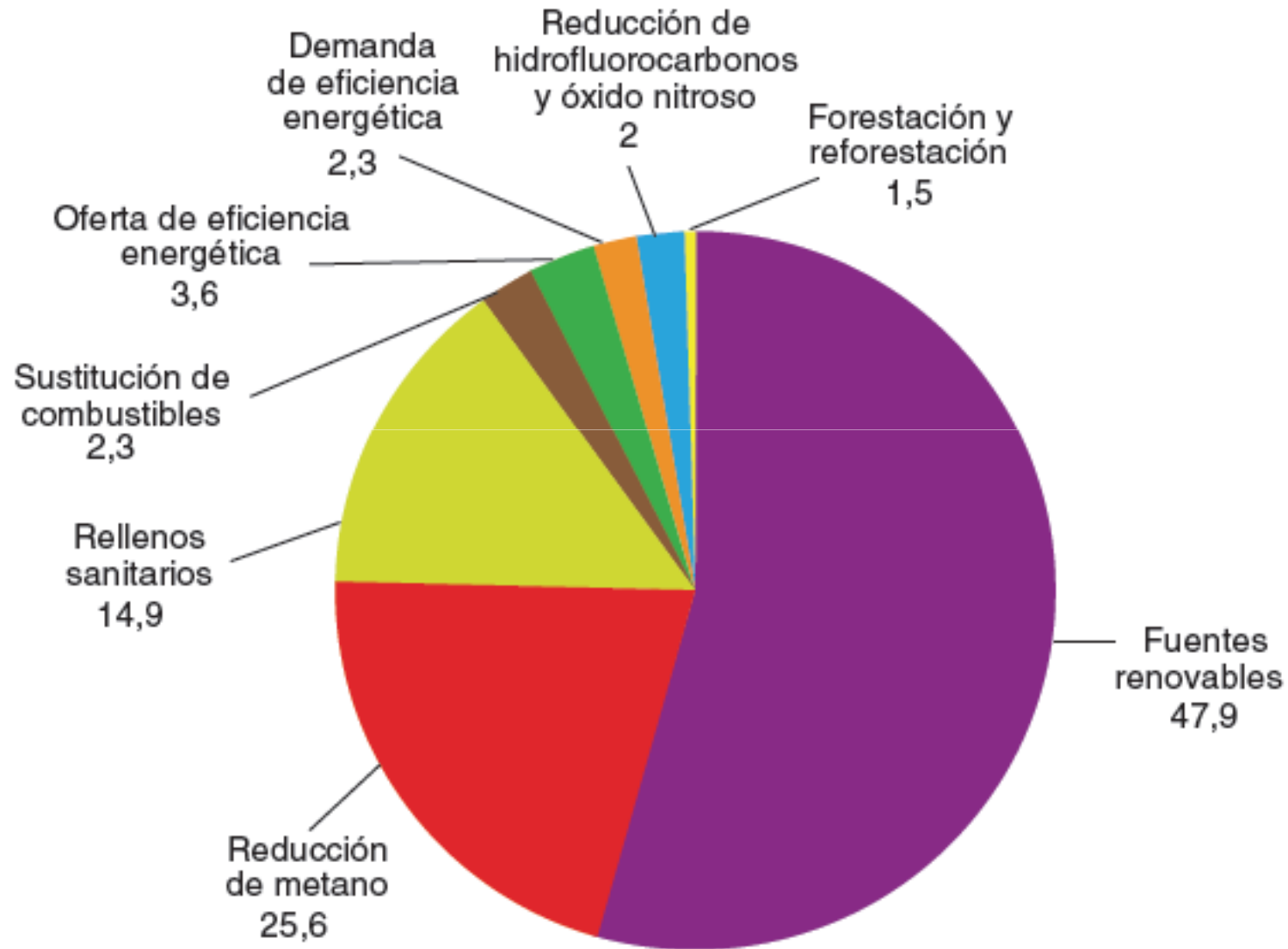


Fuente: Programa de las Naciones Unidas para el Medio Ambiente (PNUMA), 2009.

It is necessary to expand the carbon finance options



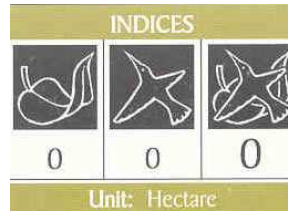
„,and only a few CDM projects for forestation and reforestation. (En porcentaje)



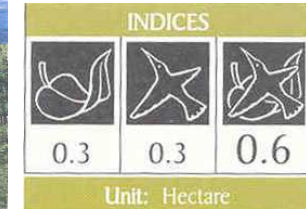
Fuente: Programa de las Naciones Unidas para el Medio Ambiente (PNUMA) , 2009.

...good pilot experiences in LAC with payment of environmental services to livestock producers

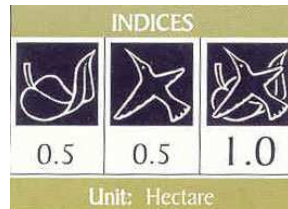
Degraded Pasture



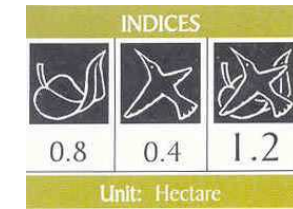
Natural Pasture with recently planted trees



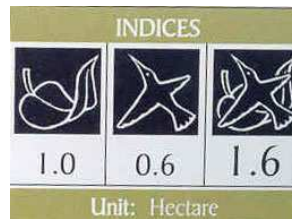
Natural Pasture with High Tree Density



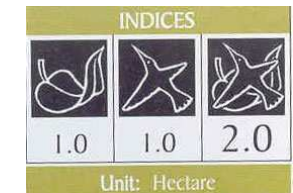
Monoculture Timber Plantation



Intensive Silvopastoral System



Mature Forest



LAC Regional perspectives: business as usual scenario (1)

- Short-term economic growth (high carbon, medium growth)
- Increased livestock production and exports by increasing area (agriculture frontier)
- Increased vulnerability, risk and severe impacts of climate change
- Increased land use and land use change emissions
- Increased extensive grazing systems and land degraded areas
- Limited investments in climate change mitigation and adaptation
- Low investments in research and innovation
- Lacking climate-friendly development policies
- Increased poverty in rural areas

LAC Regional perspectives: optimistic scenario (2)

- Increased economic growth (low carbon, high growth)
- Increased livestock production efficiency and exports
- Increased weather monitoring and forecasting to improve risk management (including animal and public health)
- Reduced land use and land use change emissions
- Sustainable intensification of grazing systems
- Higher investments in climate change mitigation and adaptation, research and innovation, food safety & Q
- Climate-friendly policies for sustainable livestock development in place
- Social protection improved and poverty reduced
- LAC leadership in the international arena

...this scenario will prevail if responsible livestock development is adopted!

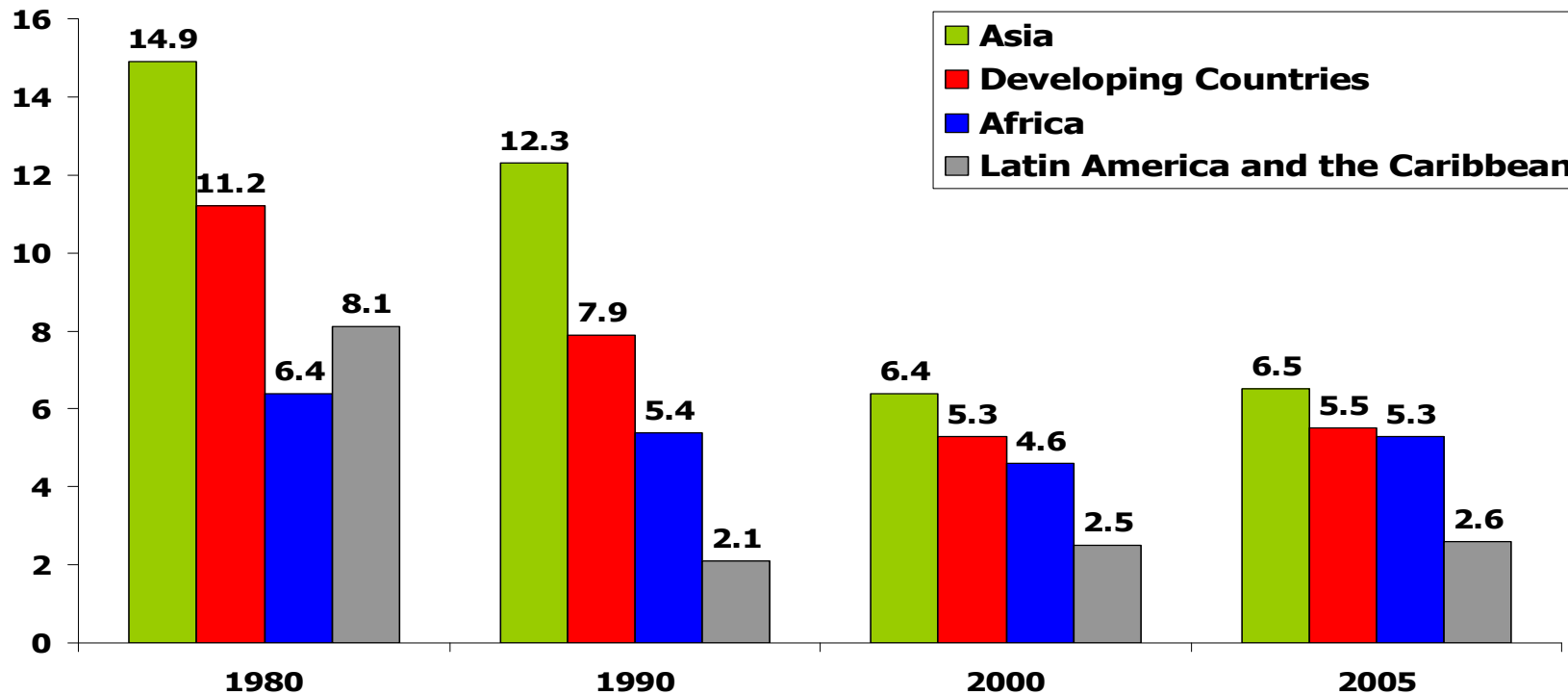


Regional priorities for responsible livestock sector development



P1: Increase public and private investments

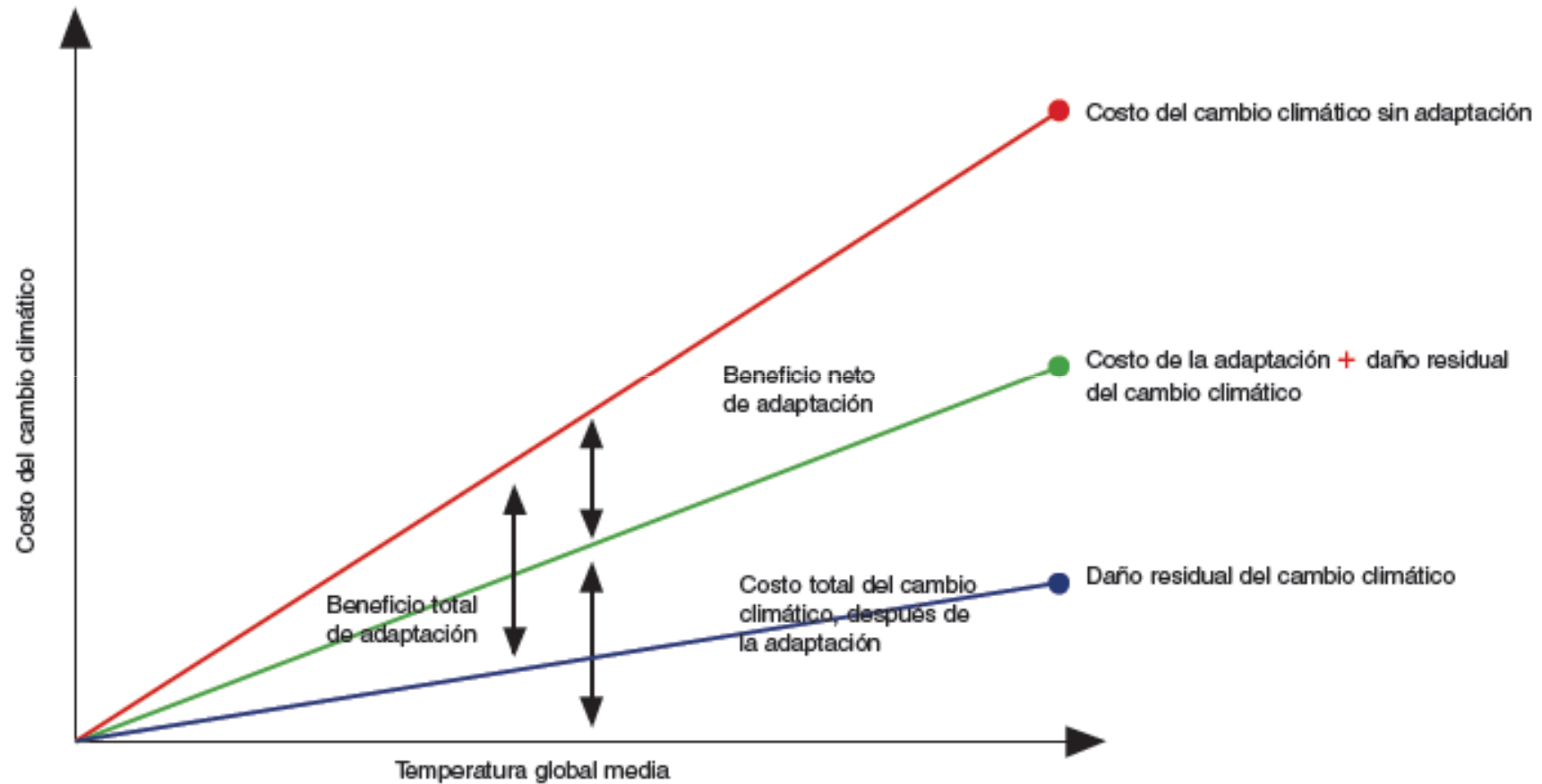
(%)
Public agricultural expenditures in developing countries
1980-2005



Fonte: World Economic Situation and Prospects 2009.



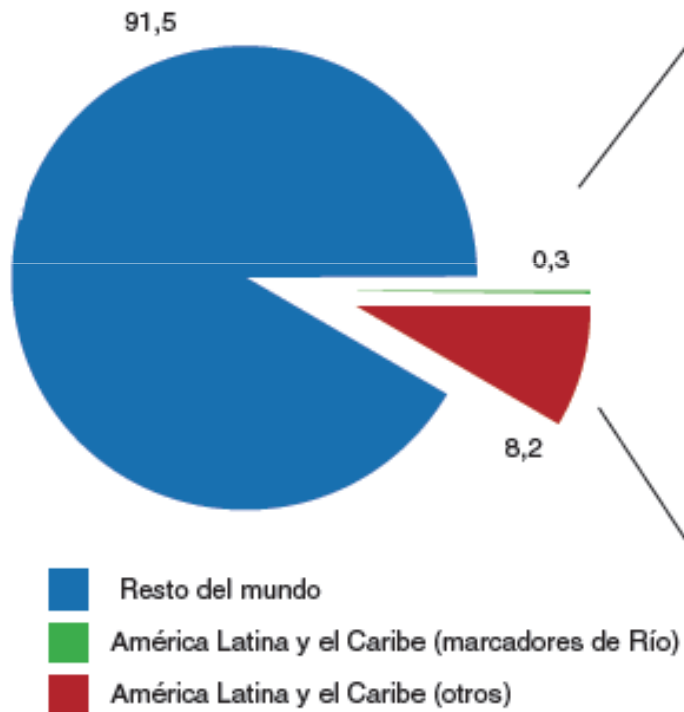
P2: Increase investments in climate change adaptation



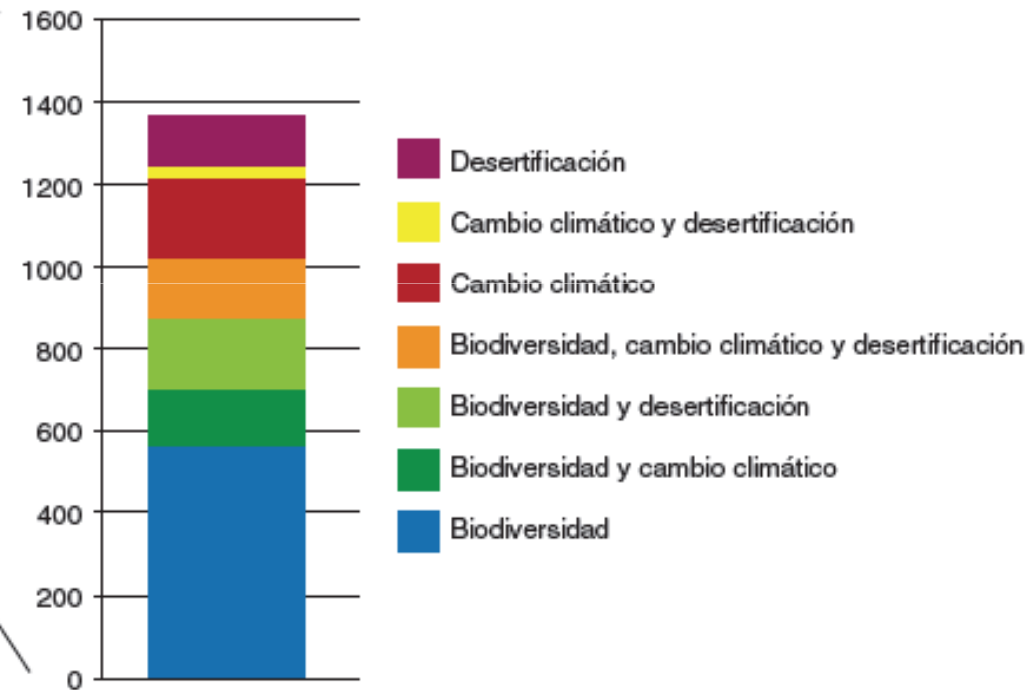


P3: Increase Official Assistance to Development (AOD), for Climate Change Adaptation and Mitigation

Desembolso total de AOD, acumulado 2000-2007
(En porcentajes)



Desembolso total de AOD en América Latina, 2000-2007 (marcadores de Río)
(En millones de dólares)



specially for poor and more vulnerable countries



P4: Improve governance

- Creating regional and national instances or platforms to discussing sustainable livestock development issues among policy makers, private sector, scientific community, civil society and consumers
- Improving **normative and incentive frameworks** for sustainable livestock development and create mechanisms to monitoring
- Improving **coordination mechanisms** among Ministries of Agriculture, Environment and Economy
- Encoraging and supporting **local social innovation**
- Expanding access to **information** and **reducing social inequities**



P5: Improve policy framework for sustainable livestock development

- Improving **livestock development** policies (ecosystem approach, planning, zoning, risk management)
- Developing **differential policies for family agriculture** and small holders
- **Articulating** livestock development policies and environmental policies (climate-friendly policies)
- Developing **climate change** adaptation and mitigation regional, national and local **frameworks and action plans**
- Creating **incentive mechanisms** to sustainable livestock development, including, payment for environmental services, environmental certification of farms and products
- Enhanced market linkages for environment good and services (C funds, CDM, REDD, NAMA).



P6: Improve institutional framework and capacity-building

- Improving **coordination mechanisms** among Ministries of Agriculture, Environment and Economy
- Strengthening agriculture **research and development** institutions
- Strengthening **veterinary and public health services**
- Increasing and improving **agricultural extension services**
- Supporting **social and local innovation** for sustainable rural development
- Improving livestock **information services**, prospective **analysis** capacities and **awareness** raising
- Promoting **public-private** alliances



P7: Improve livestock production efficiency

- Rehabilitating degraded areas and avoiding deforestation
- Improving grazing systems efficiency and carrying capacity
- Developing and adopting of integrated systems (crops-livestock-forest)
- Developing of economic models for sustainable intensification of livestock production
- Developing livestock chains agreements and agroindustrial clusters
- Improving livestock technology services



P8: Develop climate change adaptation and mitigation strategies

- Enhancing weather monitoring/forecasting to improve risk management
- Improving social protection programs to help protect against weather shocks and avoid poverty traps
- Improving land, water, and financial markets
- Maintaining and protecting ecosystems
- Mitigating the effects of, and recovering from natural disasters
- Capturing and store water, regulate flows, control floods
- Implementing early warning systems to monitor and respond to outbreaks
- Developing and sustainable use of adapted plant and animal genetic resources



Final consideration

LAC is facing challenges but moving in the right direction towards a sustainable development of the livestock sector..and will continue feeding the world....however

...this scenario will prevail if responsible livestock development is adopted by all stakeholders!

Thank you

Muito obrigado

Gracias



<http://www.rlc.fao.org>

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