

Innovation for a
competitive, resilient
and inclusive
agriculture in the
Americas:
THE ROLE OF IICA



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Rome

Purpose

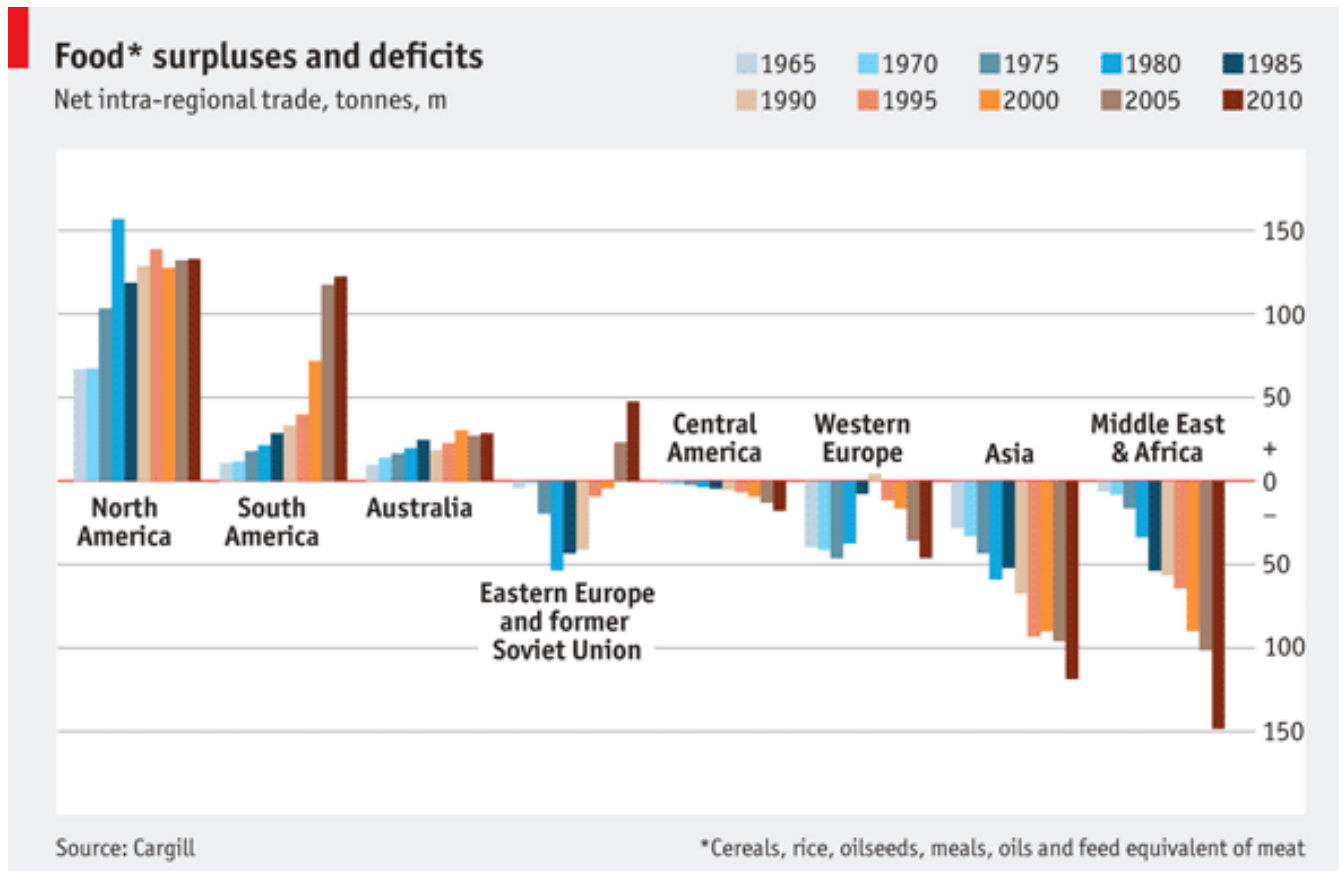
- Highlight the main challenges of agriculture in the Americas.
- Share information regarding current state of innovation in the Americas.
- Confirm IICA's commitment to advance a hemispheric agenda in innovation for a competitive, sustainable and inclusive agriculture.
- Motivate the dialogue to find “innovative” ways to trigger sustainable innovation processes in the Americas.

What is IICA?

- Organization of Inter-American system specialized in agriculture.
- Stablished on October 7th, 1942.
- 35 Member States in the Americas.
- Headquarters in Costa Rica.



AGRICULTURE IN THE AMERICAS: FOOD SURPLUSES AND DEFICITS

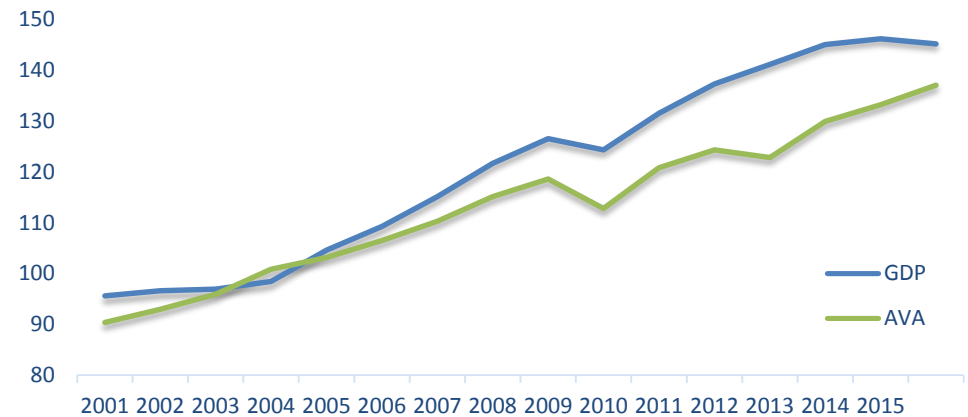


Source: The Economist.

Agriculture in LAC

- LAC exports: over 60 % soybeans, 44% beef, 42 % poultry, 17 % pork and 33 % of maize.
- Heterogeneity: Highly differentiated sub regions: Southern Cone, Andes, CA and Caribbean
- Family agriculture: 17 millions units, 80% all farms, 35% cultivated land, 40% production, 64% rural employment

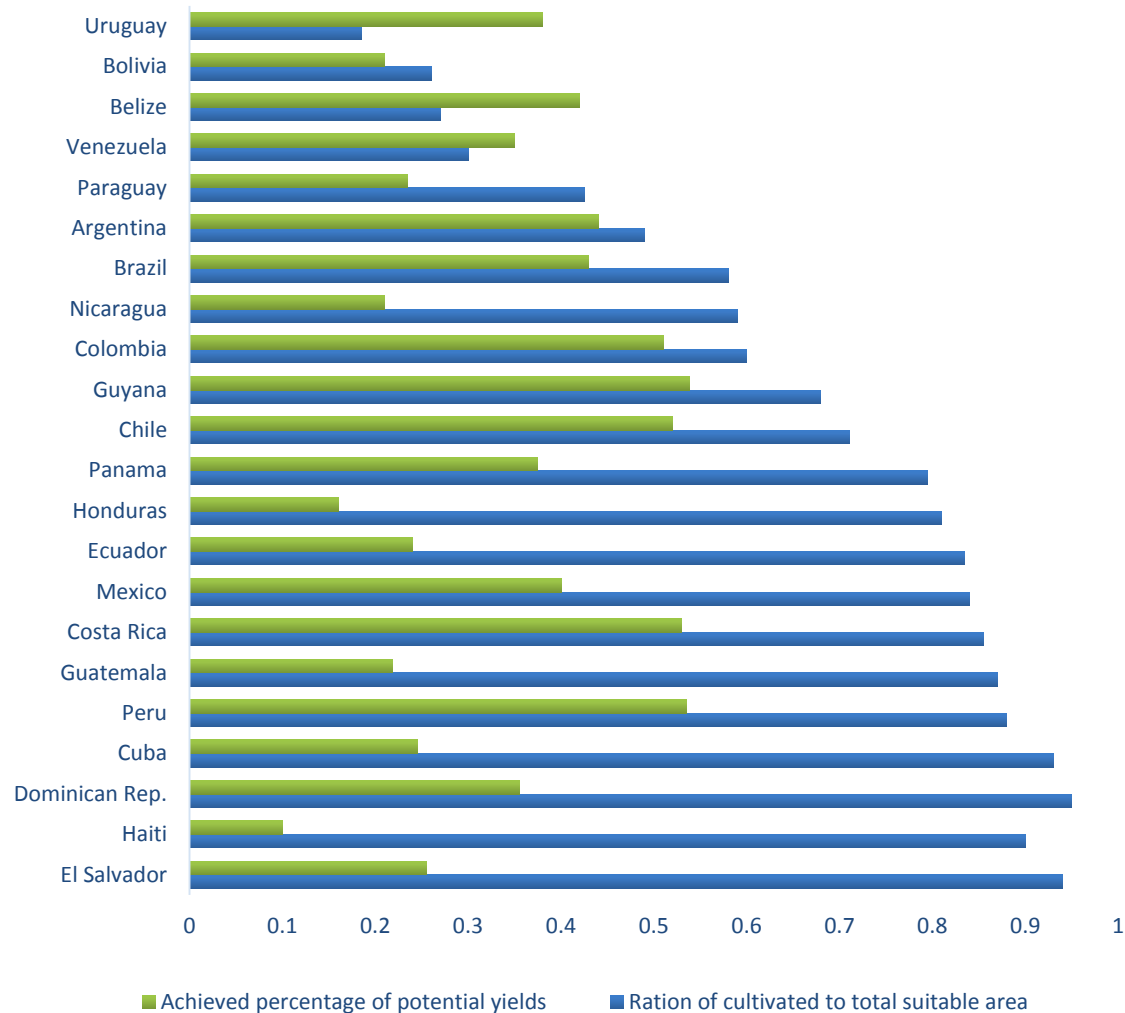
Gross Domestic Product and Agricultural Value Added (Index 2002-2004=100)



Source: IICA (CAESPA) with data from World Bank (WDI).

AGRICULTURE IN THE AMERICAS: LAC WILL PLAY A KEY ROLE IN GLOBAL FOOD SUPPLIES

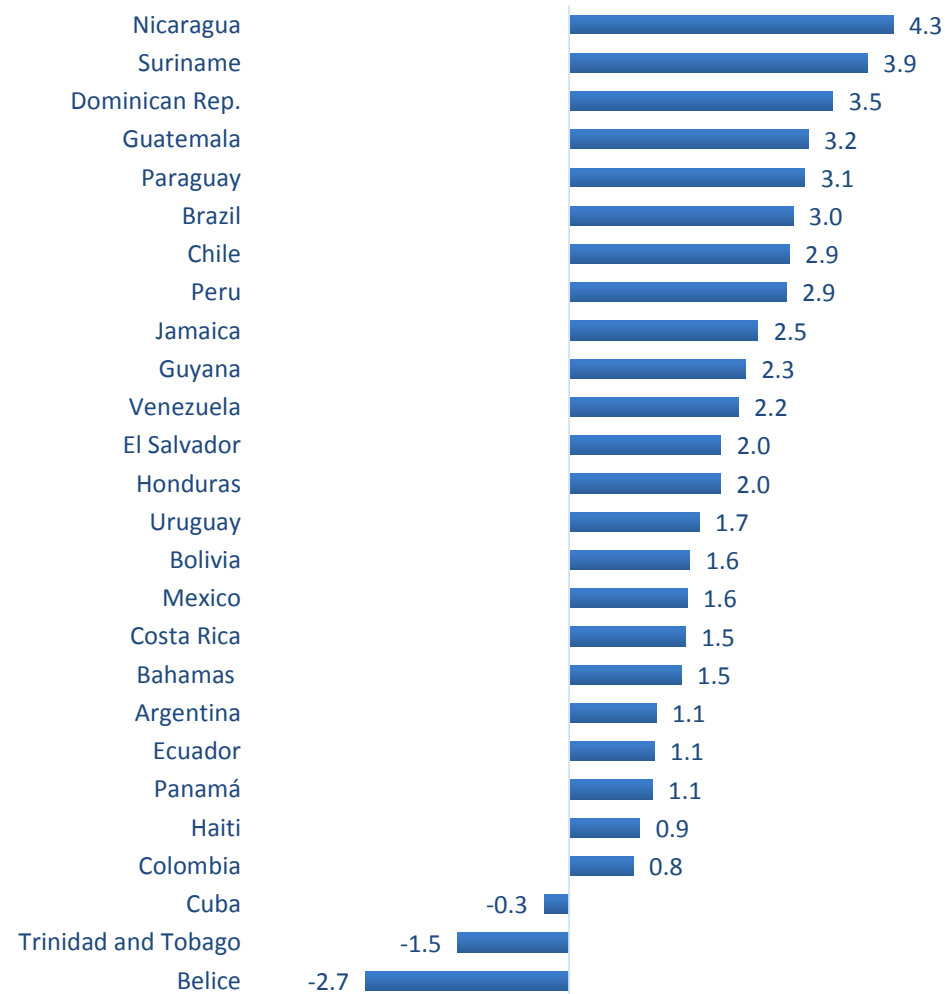
LAC: yield gap and availability of uncultivated land



Source: World Bank, 2011.

AGRICULTURE IN THE AMERICAS: AGRICULTURAL PRODUCTIVITY

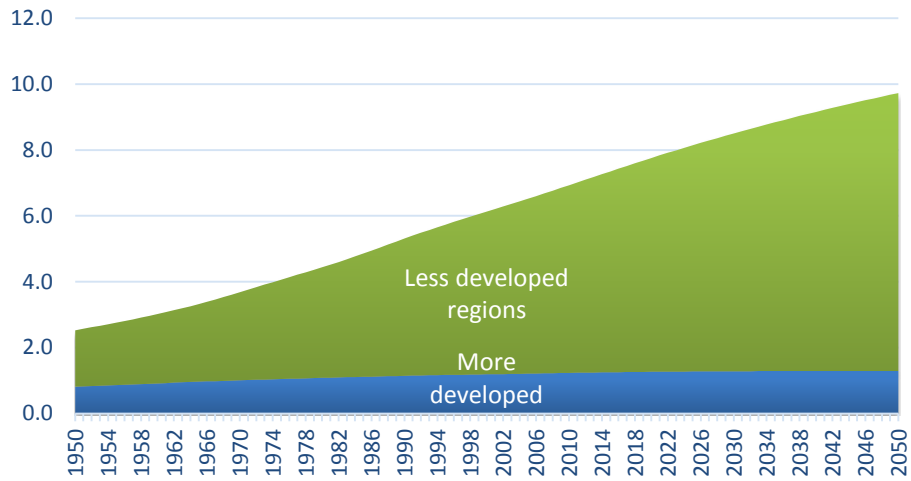
Agricultural total factor productivity growth; 2004-2013



Source: Fuglie, Keith O.(2016).

AGRICULTURE IN THE AMERICAS: POPULATION GROWTH

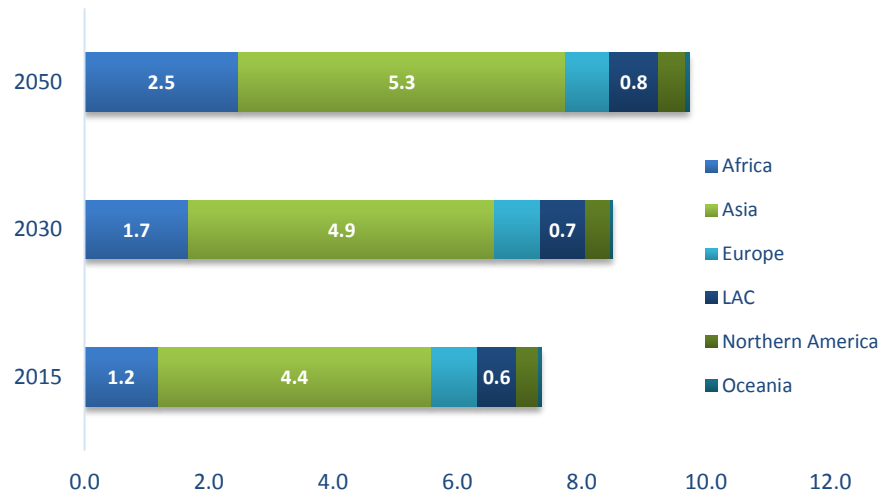
World Population Prospects, bn



9.7 Billion people

World population in 2050

World population by geographic region, bn



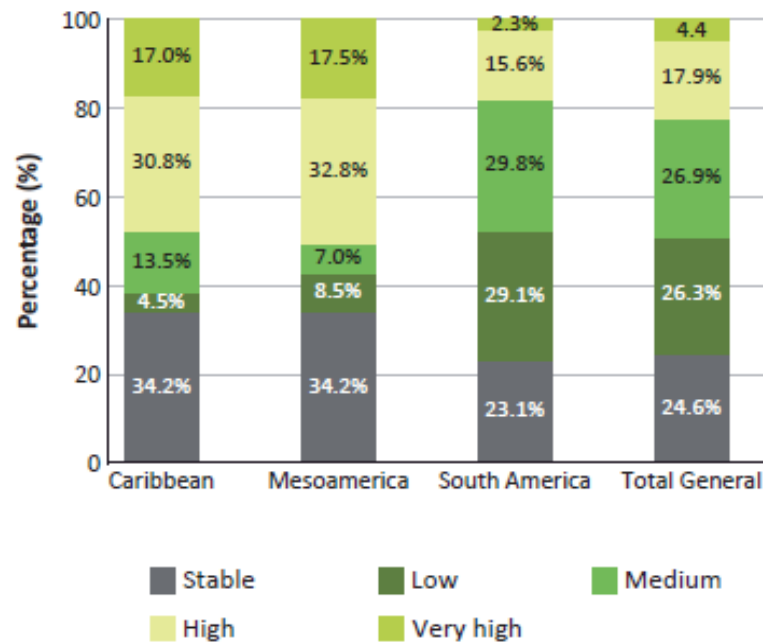
Top 5 - Most populated countries (2050)

1. India (17.5%)
2. China (13.9%)
3. Nigeria (4.1%)
4. United States (4.0%)
5. Indonesia (3.3%)

Source: IICA (CAESPA) with data from UN (DESA), World Population Prospects: The 2015 Revision.

AGRICULTURE IN THE AMERICAS: SOIL DEGRADATION

Severity of soil degradation, 1990.



Source: Oldeman *et al.* 1991

306 Million hectares
in LAC

Have been affected by human soil degradation

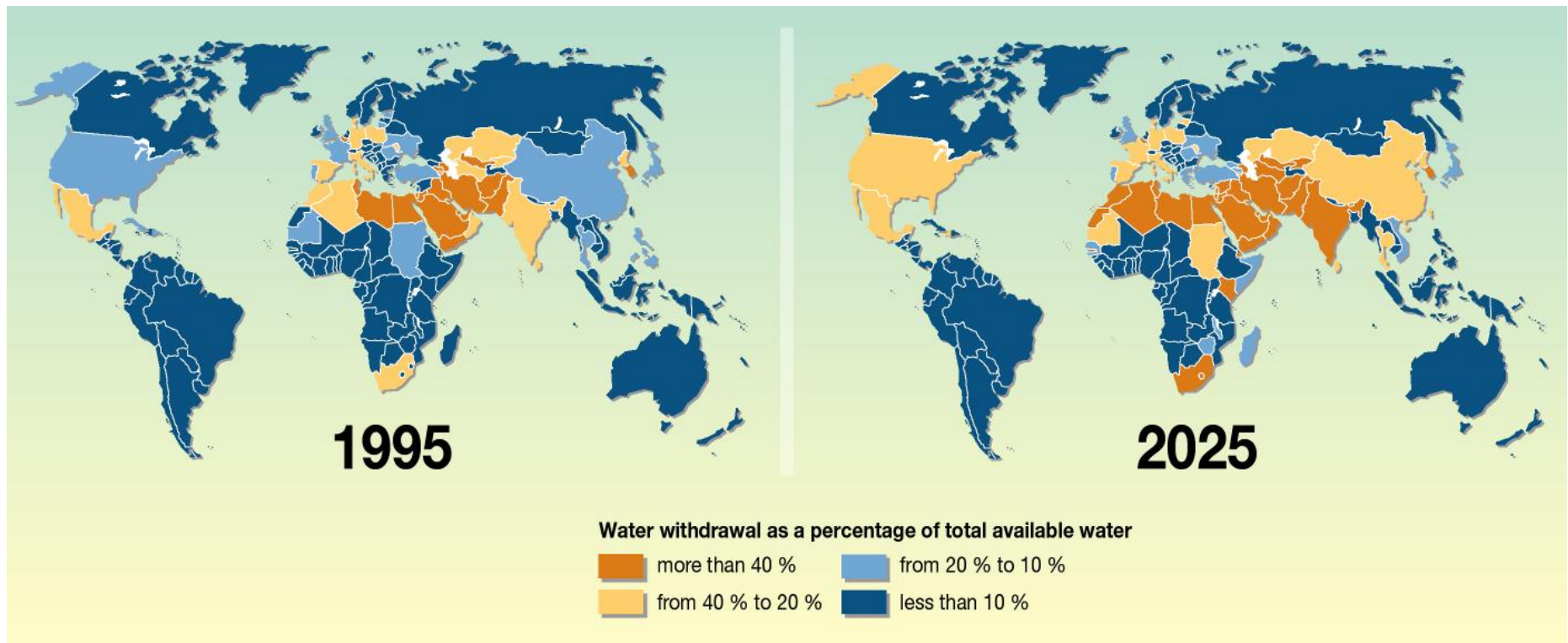
38% Caribbean

50% Mesoameric
a

Of soils are in high and very high levels of
soil degradation

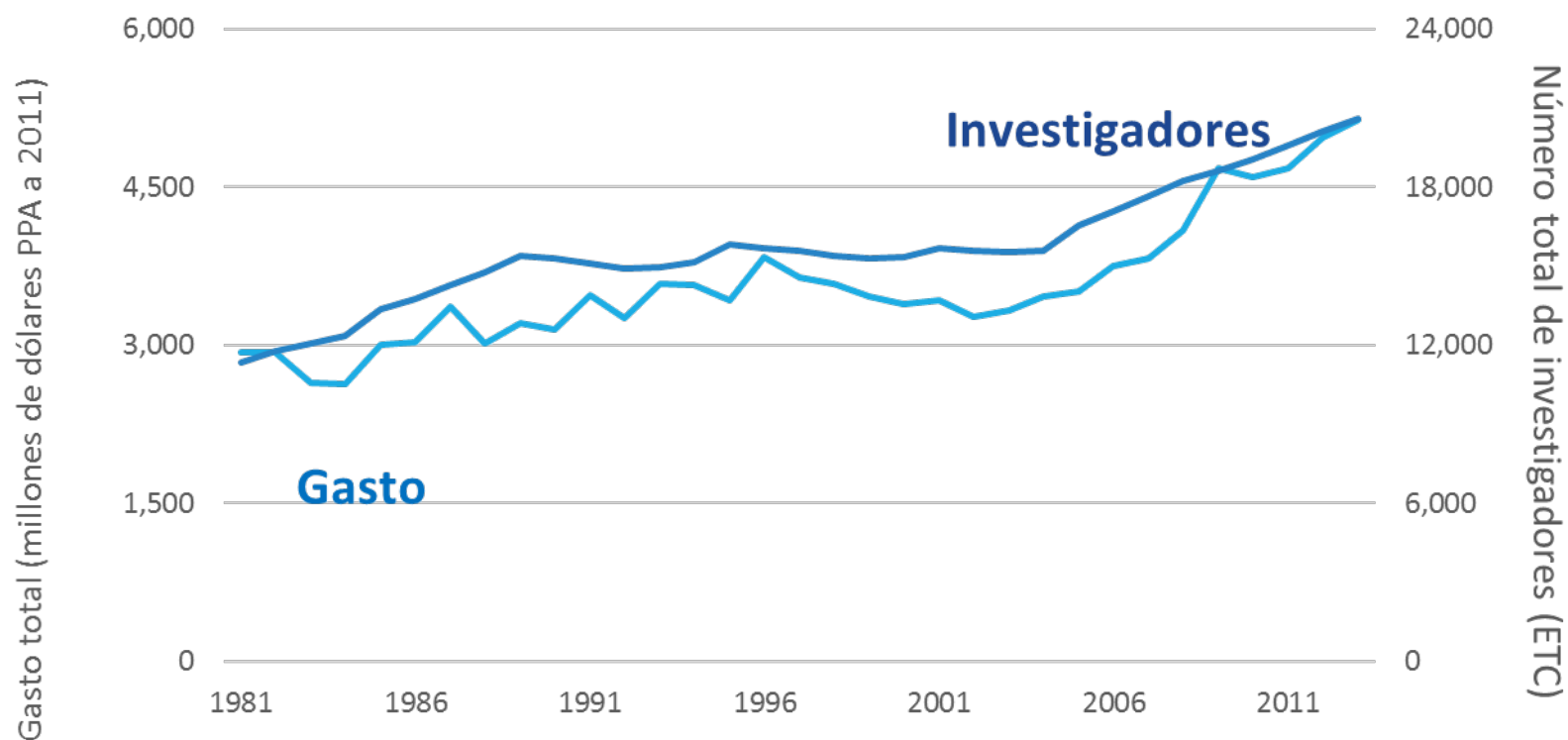
Source: UNEP, 2016.

AGRICULTURE IN THE AMERICAS: WATER SCARCITY



Source: UNEP, Vital water graphics, 2008.

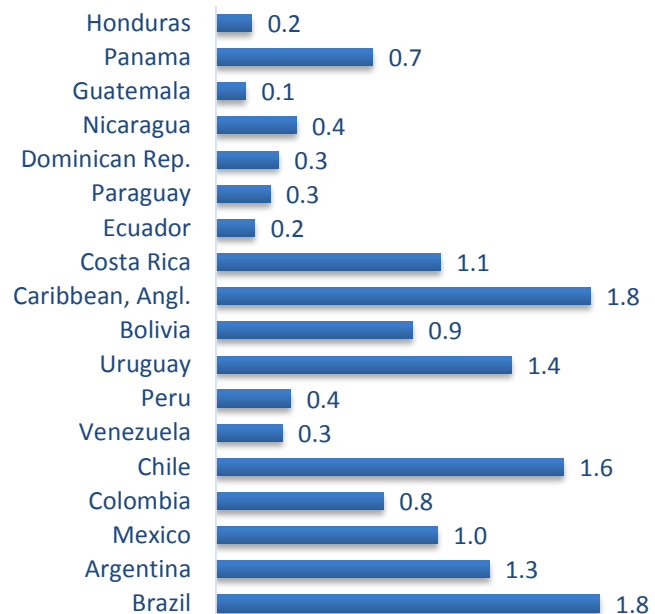
PUBLIC FUNDING FOR AG RESEARCH IN LAC



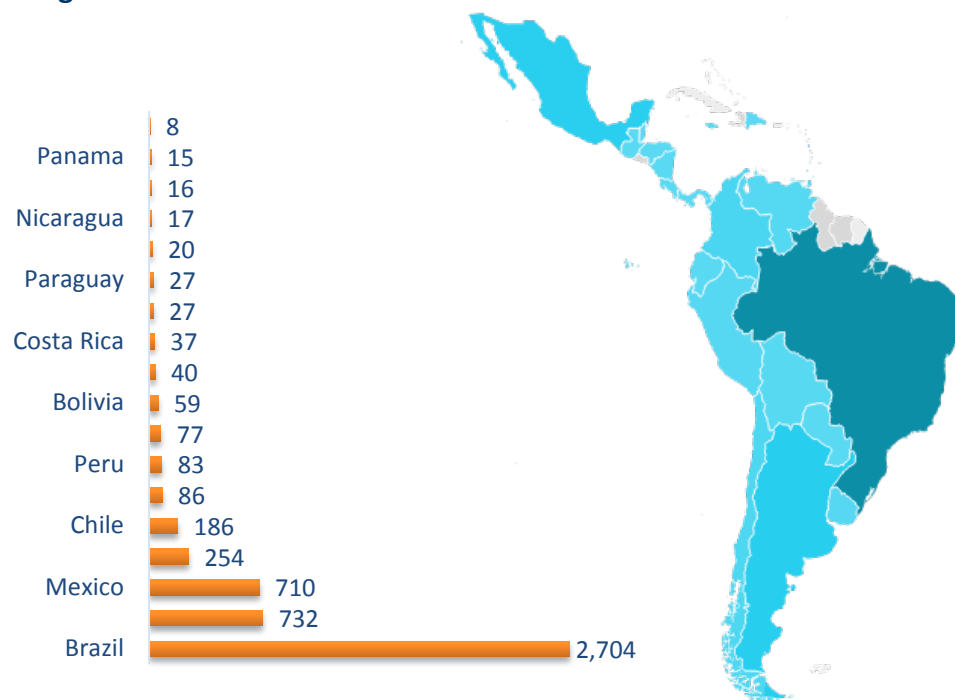
Con autorización de Pérez,
2016.ASTI. Lead by IFPRI

CHALLENGES FOR AGRICULTURE SECTOR IN THE AMERICAS: FINANCIAL RESOURCES

Spending - Share of AgrGDP, %



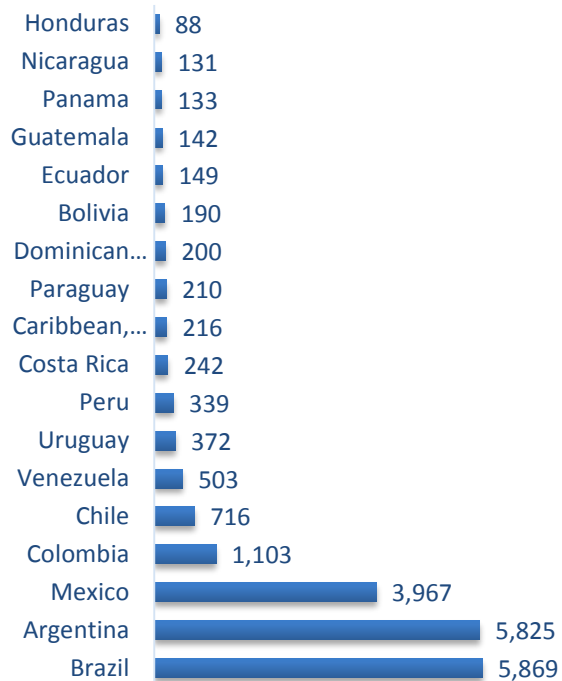
Spending - million constant 2011 PPP dollars



Source: IFPRI (Agricultural Science and Technology Indicators (ASTI)).

CHALLENGES FOR AGRICULTURE SECTOR IN THE AMERICAS: HUMAN RESOURCES

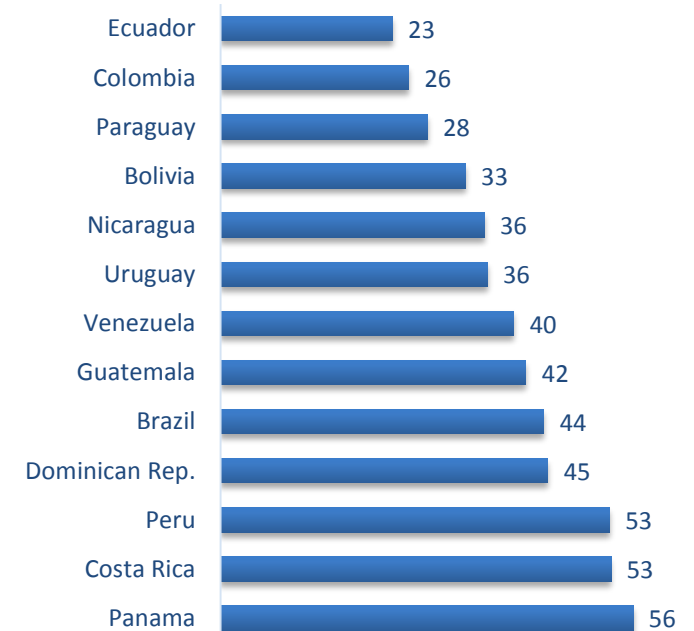
Researchers, (FTEs)



Researchers - Share with PhD



Researchers – Share of >50 years

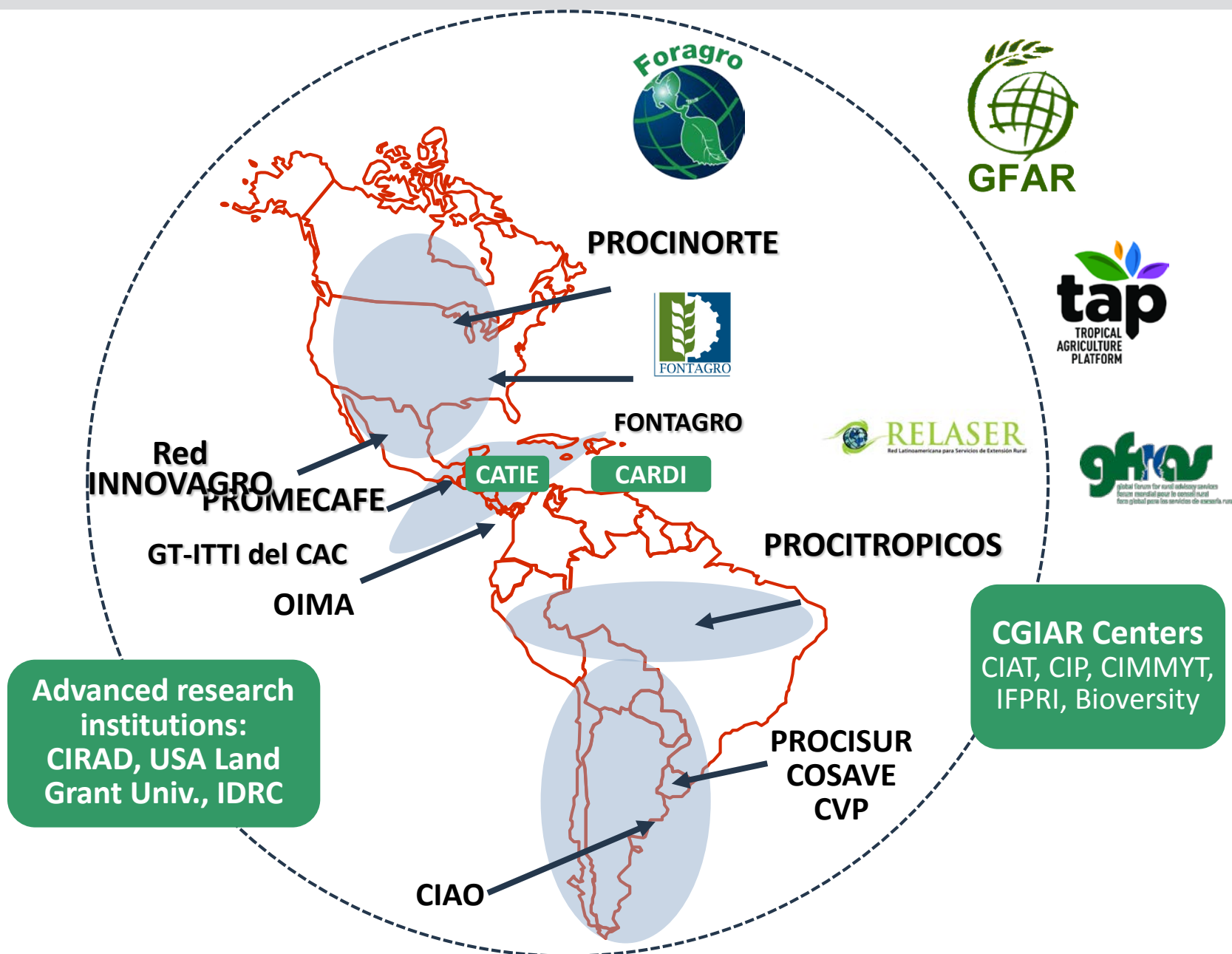


Source: Agricultural Science and Technology Indicators (ASTI).

SCIENTIFIC PRODUCTION IN THE REGION (2015)

Country	Number of scientific articles	Citations
Brazil	12651	3113
México	3212	1149
Argentina	2710	990
Chile	1505	553
Colombia	1163	378
Peru	359	152

IICA AND MECHANISMS FOR TECHNICAL COOPERATION



PROCI

	COUNTRIES	AREAS OF FOCUS
PROCISUR	Argentina, Bolivia, Brazil, Chile, Paraguay, Uruguay	Sustainable intensification, Climate change, genetic resources and water, Family farming, Value added chains, Institutional innovation
PROCITROPICOS	Bolivia, Brazil, Colombia, Ecuador, Peru Suriname, Venezuela	Sustainable intensification, Climate change, genetic resources and water, Family farming, Diversification and value added, Agro-energy, Institutional innovation
PROCINORTE	Canada, Mexico, USA	Animal health, Crop protection, Genetic resources, Fruit crops
PROMECAFE	Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Panamá	Breeding, genetic resources, Rust, early warning systems, Agronomy, best practices, Value added, ecosystem services
GT ITTI	Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Panamá	Food security, Family farming, Innovation systems, Alternative energy sources, Climate change, Agribusiness, Sanitary, phytosanitary measures and food safety, water and irrigation, extension services

OTHER COLLABORATION MECHANISMS

	COUNTRIES	AREAS OF FOCUS
CIAO	USA, México, DR, Costa Rica, El Salvador, Guatemala Honduras, Nicaragua Panamá, Bolivia, Colombia Ecuador, Venezuela, Perú, Argentina, Brasil Chile, Paraguay, Uruguay	Trade facilitation and market development for organic products, establishment and strengthening of national control systems, Promotion of organic production, information and knowledge management
COSAVE	Argentina, Bolivia, Brazil, Chile, Paraguay, Peru Uruguay	Regional collaborations on sanitary and phytosanitary issues: Support on negotiations, analysis, harmonization, standards
OIMA	Canada, Mexico, USA, Belize, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador, Peru, Bolivia, Brazil, Argentina, Uruguay, Paraguay, Chile, Caribbean countries	Information exchange on agricultural markets, knowledge exchange, capacity-building to improve countries' market information systems

- Sustainable financing for agricultural research and innovation
- Board: 15 member countries
- Sponsored by IICA and IDB
- Secretariat based at IDB
- Finances projects to institutions of at least 2 member countries

- Capital: over **US\$ 100 million**
- **98** projects approved
- **US\$ 81.7 million** approved
- Leverages **US\$ 1** to **US\$ 5** from others
- **25** countries benefited



INNOVAGRO NETWORK

- 78 members from 16 countries, 13 from LAC plus Spain, Netherlands and Israel
- International seminars, on-line training, strategic studies, videoconferences.
- Governance: representatives of constituencies from innovation systems.
- Executive Secretary, technical and administrative support provided by IICA.



BUDGETS AND IICA SUPPORT

Organization	Secretariat Total Operational Cost	Salaries/Op Costs	2014 Source of Funding			TOTAL
			Member countries	IICA*	Mobilized resources**	
	in US\$ MM	%	in US\$ MM			
FONTAGRO	0.53	50%	2.59	0.07	13.09	15.75
FORAGRO	0.08	50%	-	0.08	-	0.08
CAC-TGI	0.12	58%	-	0.05	6.37	6.42
PROCINORTE	0.13	31%	0.40	0.13	-	0.53
PROCISUR	0.40	57%	0.55	0.22	0.38	1.15
PROMECAFE	0.28	61%	0.17	0.21	6.90	7.28
PROCITROPICOS	0.16	56%	0.19	0.27	0.40	0.86

* Annual cash and in kind contribution

** Mobilized resources in active projects as of dec 31, 2015

AREAS FOR POTENCIAL COLLABORATION WITH GFAR

- Policies for agricultural innovation
- Strengthen innovation systems
- Build new paradigms for public and private financing
- Brokering articulation among actors
- Opportunities to “retain brains”
- Institutional capacity building



For more information or comments:

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