



Responses to New Agricultural Challenges



Leticia Deschamps, June 2011

Outline

1. Global Changes and Challenges
2. Approaches: National Agricultural Innovation Systems
3. Innovation Management Network for the Agrifood Sector

Global Changes in Agri-food Sector

- Internationalization and Globalization
- Market as the primary incentive for change
- Climate change
- Growing concerns about food security
- Increased private sector participation
- Growth and Diffusion of ICTs
- Changes in the learning structure

Global Challenges in Agri-food Sector

- Increase in poverty
- Climate change
- Food Security
- Diminishing productivity
- Deceleration of investment
- Growth in knowledge gap
- New Investment priorities (diminishing investments for productivity enhancement)
- Limited R&D Manpower and Growth
- Long lags between investment and results
- Stronger international cooperation

Approaches to Innovation

| Concepts | Approach | Players | Main Mechanism | Resources |
|--|--|---|-----------------------------|------------------------------------|
| National Agricultural Research Systems (NARS) | Technology Generation and technology transfers | Research Centers and Universities | Result Transfers | Infrastructure and human resources |
| Agricultural Knowledge and Information Systems (AKIS) | Knowledge and Technology Dissemination | Research Centers, Universities, extension services , NGOs | Knowledge Exchange | The Media |
| National Agricultural Innovation Systems (NAIS) | Technological and Institutional Innovation | Economic actors that generate and use knowledge | Interaction among the users | Interaction Platforms |

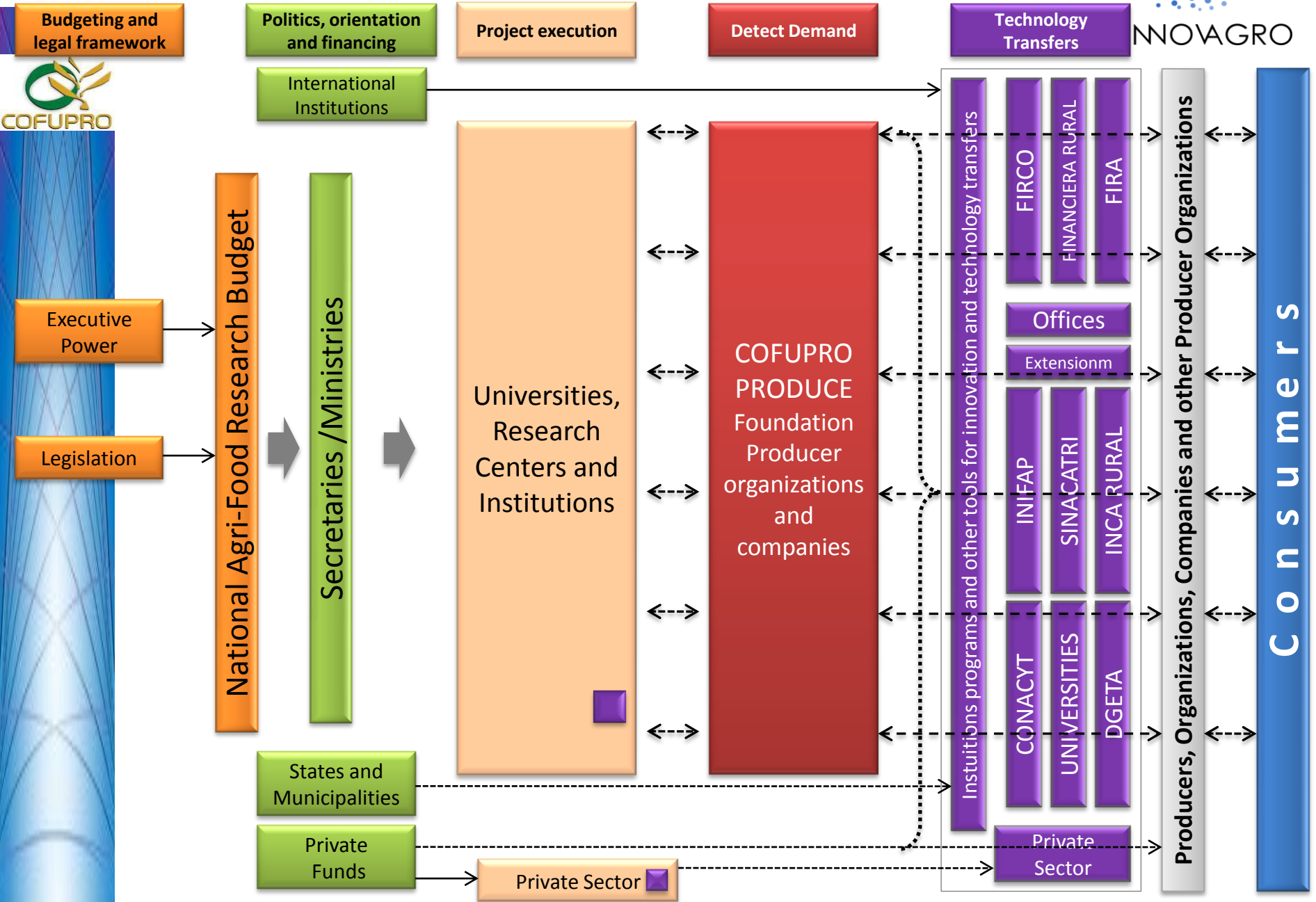
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Willem Janssen, World Bank

Innovation systems can be defined as the set of actors, interactions and policies for the creation and dissemination of technologies and innovations that improve productivity, competitiveness, sustainability and equity in the agri-food sector

IICA 2011



How National Innovation System respond to new challenges?

- Aims to reduce poverty, decrease hunger and improve overall human health and nutrition
- Leads to environmental sustainability
- Involves changes in methods and practices
- Leads to improved yields in crop production
- Generates mechanisms to improve institutional cooperation



Innovation Management Network for the Agrifood Sector

IICA's Role on Innovation

Mission

- IICA is the institution of the Inter-American System that provides technical cooperation, **innovation** and specialized knowledge to contribute to the competitive and sustainable development of agriculture in the Americas and to improve the lives of rural dwellers in the member countries.

COFUPRO

- ❖ COFUPRO (The National Coordinator for Produce Foundations)

Is a non governmental organization coordinating 32 institutions (one per state) working with public and private institutions nationally and internationally.

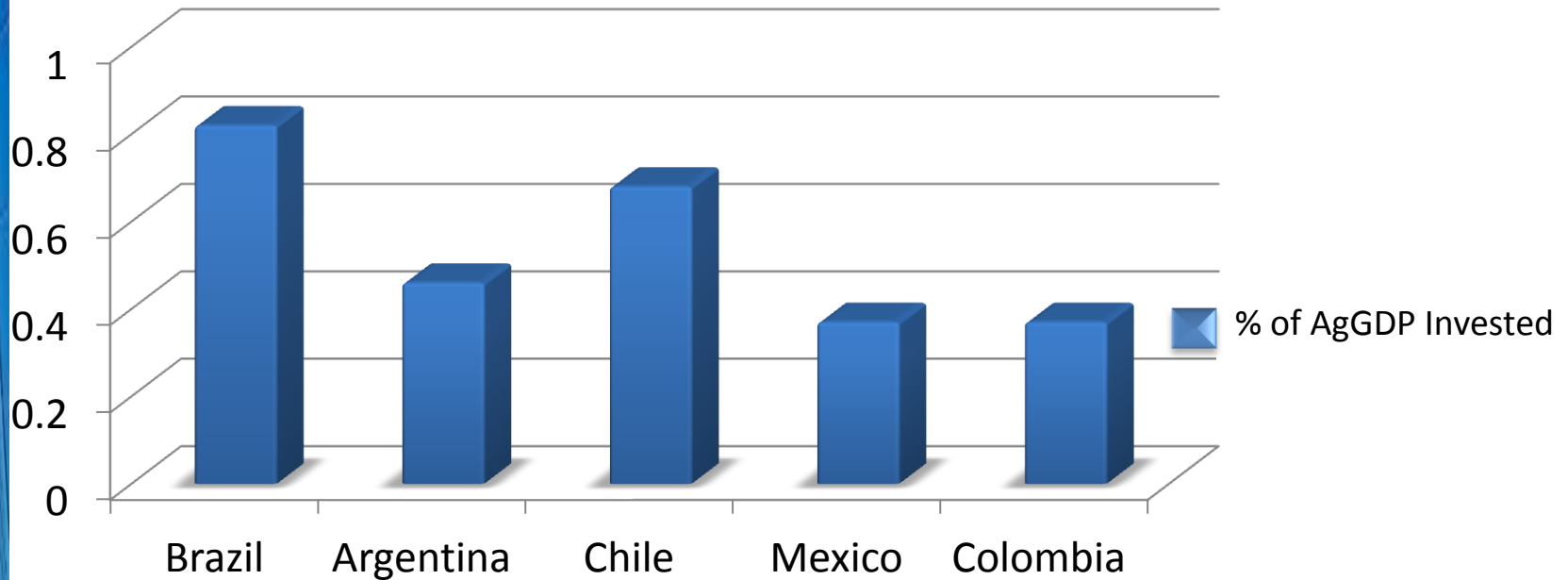
Created as a response to common needs and individual limitations in support of technological innovation.

- ❖ The innovation management network was created to meet the expectations placed on IICA by COFUPRO

Agri-Food R& D + I in Latin America

% of AgGDP Invested

2004-2005



Source: IFPRI-ASTI 2004-2005

Innovation Management Network for the Agri-food Sector

It is therefore necessary for countries to participate in joint programs, which foster collaboration

- Impacts in food production
- Yields new products, services, methodologies and processes.
- Generates several opportunities towards development in:
 - Productivity
 - competitiveness
 - Sustainability
 - Equity

Innovation Management Network for the Agri-food Sector

It was created to:

- Encourage communication between Countries
- Maximize the use of whatever limited resources might be available
- Focus on developing research, technology transferal and innovation management on the Agri-Food Sector.

Network Members



Types of Institution

| Types of Institutions | # |
|---|---|
| Innovation and Research Institutions | 9 |
| Higher Education Institutions | 7 |
| Foundations | 7 |
| Public Sector | 8 |
| International Organizations | 1 |
| National Systems | 1 |
| Financial Institutions | 1 |

Institutions: 34

Countries: 12

Argentina

Bolivia

Brazil

Chile

Colombia

Costa Rica

El Salvador

Spain

Guatemala

México

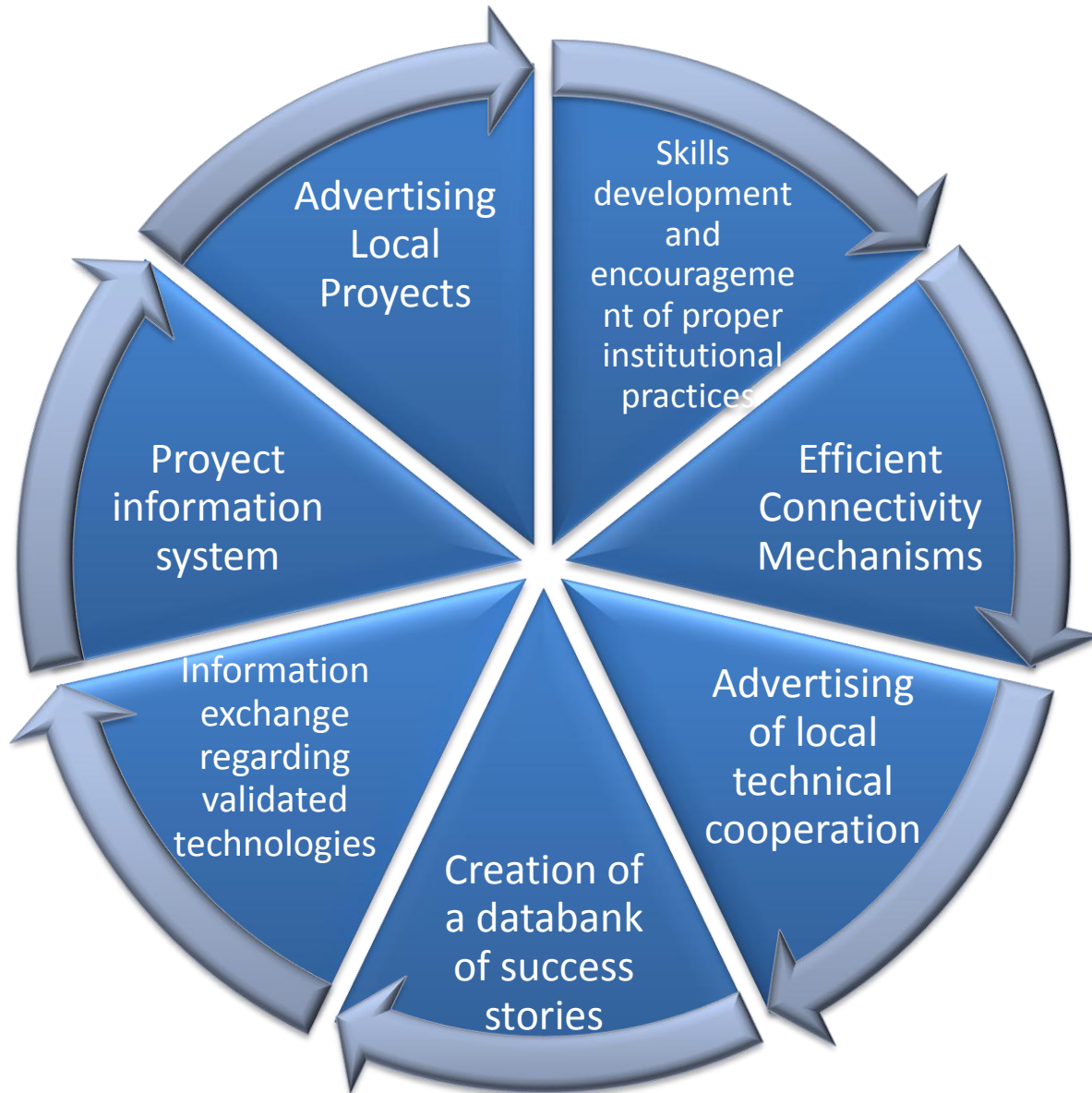
Nicaragua

Dominican Republic

Network: Main Goals

- × Empowerment of all innovation management processes in the agrifood sector.
- × Exchange of knowledge, information, technical cooperation and expertise.

Key Elements



International Seminar for Innovation Management in the Agrifood Sector

- International Seminar on the 26th and 27th of May
- The seminar was broadcasted via web
- This is part of an interactive process
- Viewers could participate with questions and comments



Conclusions

Agricultural Knowledge and Innovation Systems are a reaction to changes in the global context. AKIS are different between countries and regions. They are in a transition phase to emphasize the processes needed to make knowledge useful and applicable.

The challenges in the agri-food sector show us very clearly that innovation and AKIS are key in generating value and wealth.

Investment priorities will have to change in order to face these challenges. Private and public institutions must work together.

Cooperation between different agents involved in innovation systems is essential to overcome the current challenges, hence, working in nets should be increased. These agents are: higher education institutions; research centers, producers, institutions specialized in technology transfer, etc.

INNOVAGRO's, Innovation Management Network for the Agrifood Sector seeks

- to transcend borders and continents
- to collaborate internationally

“If we sow innovation today, we can surely reap prosperity tomorrow”

*Víctor Villalobos A.
Director General del IICA*