



UNCSTD Inter-Sessional Panel Meeting on "The role of science, technology and innovation (STI) in ensuring food security by 2030",  
23-25 January 2017, Geneva, Switzerland.

# Science, Technology and Innovation for Sustainable Food Systems to meet the SDGs





# The 2030 Agenda for Sustainable Development

- ❖ 17 Sustainable Development Goals,
- ❖ 169 targets,
- ❖ 231 indicators.





# The SDG Challenge: Dealing with complexity

- ❖ The development community is challenged with complex development needs;
- ❖ Multiple objectives under SDGs are requiring:
  - *a mix of instruments in several “packages”;*
  - *transdisciplinary approaches in research and innovation;*
  - *effective collaboration among diverse actors and improved governance;*
- ❖ Improved research-practice and research-policy interfaces require cross-sectoral coordination;
- ❖ To address the complexity of the SDGs, understanding both **technological and organizational innovations** is required.



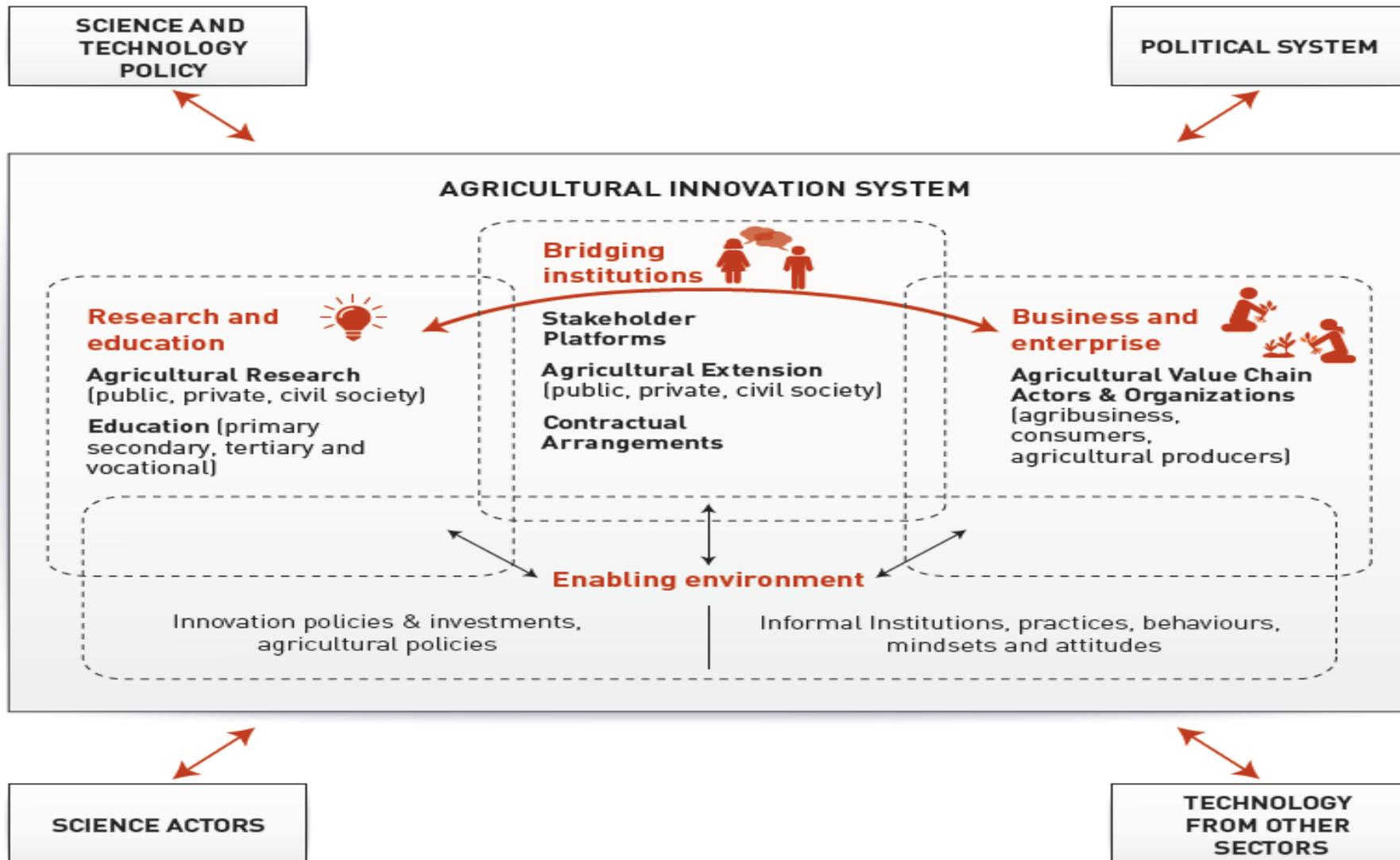
# Agricultural innovation

*“is the process whereby individuals or organizations **bring existing or new products, processes and forms of organization into social and/or economic use** to increase effectiveness, competitiveness, resilience to shocks or environmental sustainability, thereby contributing to food and nutritional security, economic development and sustainable natural resource management.”*

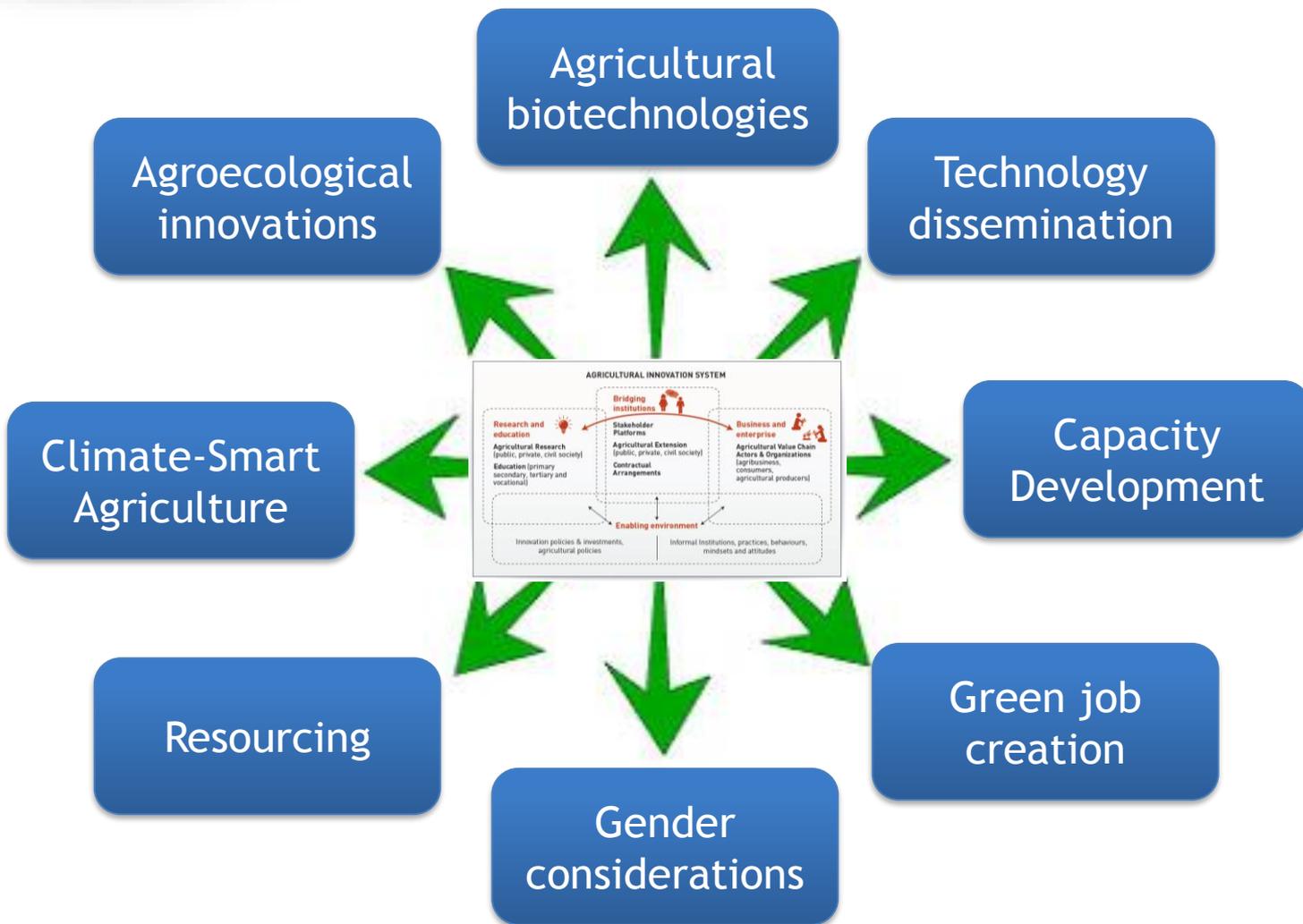
- ❖ Innovation ≠ Invention → Innovation implies application
- ❖ **Innovation refers to technologies and practices:**
  - Improved varieties, agro-ecological practices, biotechnologies, etc.
- ❖ **BUT also to processes and organizational forms:**
  - Public-private partnerships; farmers’ cooperatives; performance contracts, etc.



# Agricultural Innovation System (AIS)



# Main drivers of change



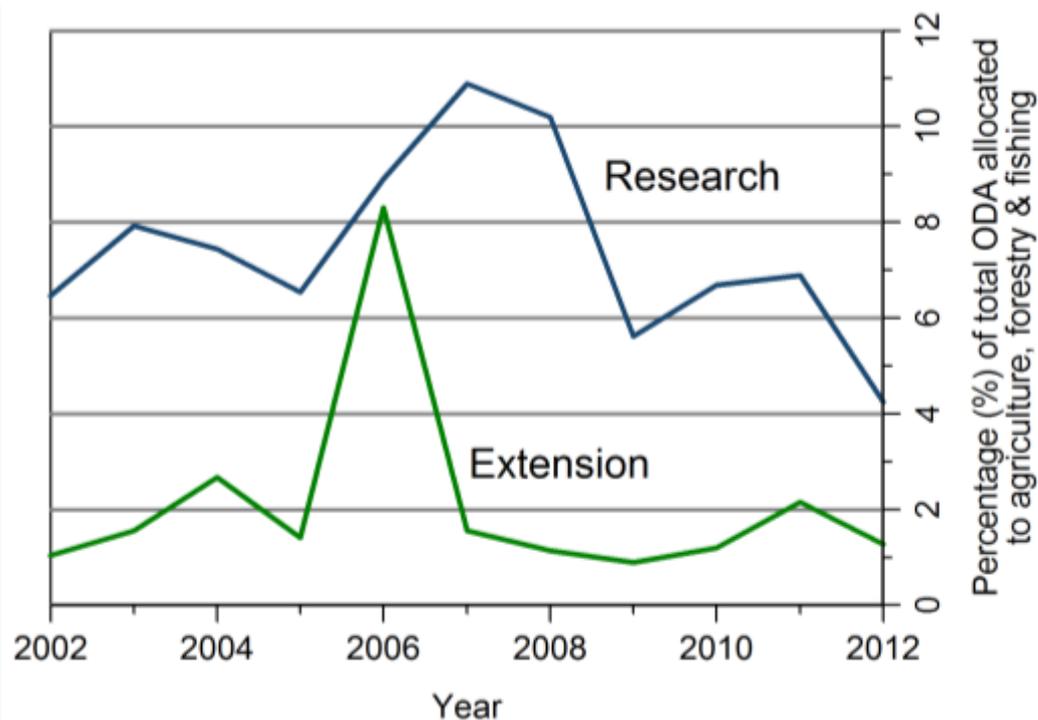


# Decline in international investments in agricultural innovation

Investments in agricultural research and development are **declining** and mostly **concentrated** in high-income as well as in a few large middle-income countries.

From 2002 to 2012 the share of **Official Development Assistance (ODA)** allocated to research and extension has **decreased** or remained **steady**.

Volatile aid flows are causing challenges in planning and implementation.

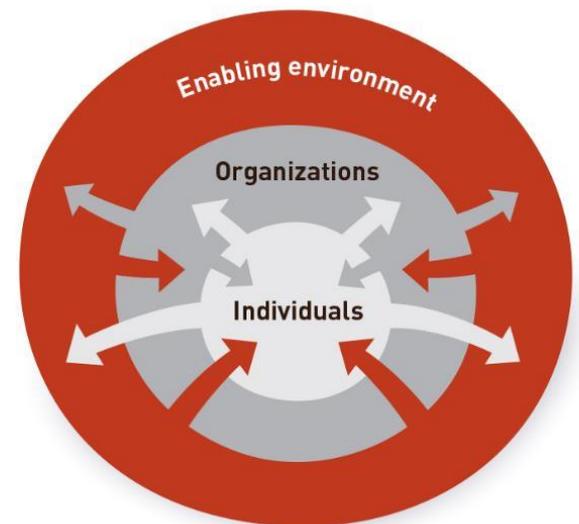


Source: Angelico et al. 2015. Is Aid to Agricultural Innovation a Priority for the International Community? <http://www.fao.org/publications/card/en/c/90bfc23f-6e73-4387-9175-590f140e4794/>



# What countries need?

- ❖ Increased investments in agricultural R&D, extension and advisory services;
- ❖ Capacity development to improve their national agricultural innovation systems:
  - Enabling environment and institutional capacities;
  - Organizational capacities;
  - Individual capacities.





# Institutional innovation: Capacities for effective partnerships

- ❖ Innovation Partnerships between Public, Private Sectors and NGOs (Innovation platforms, networks) coupled with innovation brokers;
- ❖ New finance mechanism for research, extension and innovation (e.g. innovation funds);
- ❖ Farmer-led initiatives (certification for GAP, other certification labels);
- ❖ South-South, North-South and triangular collaboration arrangements.



# FAO's response

FAO has embarked on a series of **strategic activities and key areas of work** covering multiple sectors along the research to development continuum, by:

- ❖ *Strengthening linkages between research, advisory services and other key innovation actors;*
- ❖ *Promoting Agroecology;*
- ❖ *Promoting Agricultural biotechnologies;*
- ❖ *Advocating for rural financing;*
- ❖ *Promoting green job creation;*
- ❖ *Supporting the Tropical Agriculture Platform (TAP).*





# Capacity development for agricultural innovation





# FAO's focus as recommended by COAG, 25<sup>th</sup> Session, 2016:

Promoting an  
enabling environment

*Policy, Coordination, Knowledge sharing,  
etc.*

Strengthening capacity to  
innovate at country level

*Three-dimensional: individuals,  
organizations  
and the enabling environment*

Promoting public-private  
partnership

*A framework - that while engaging  
the private sector - acknowledge and  
structure the role for governments.*

Advocating and monitoring  
investments

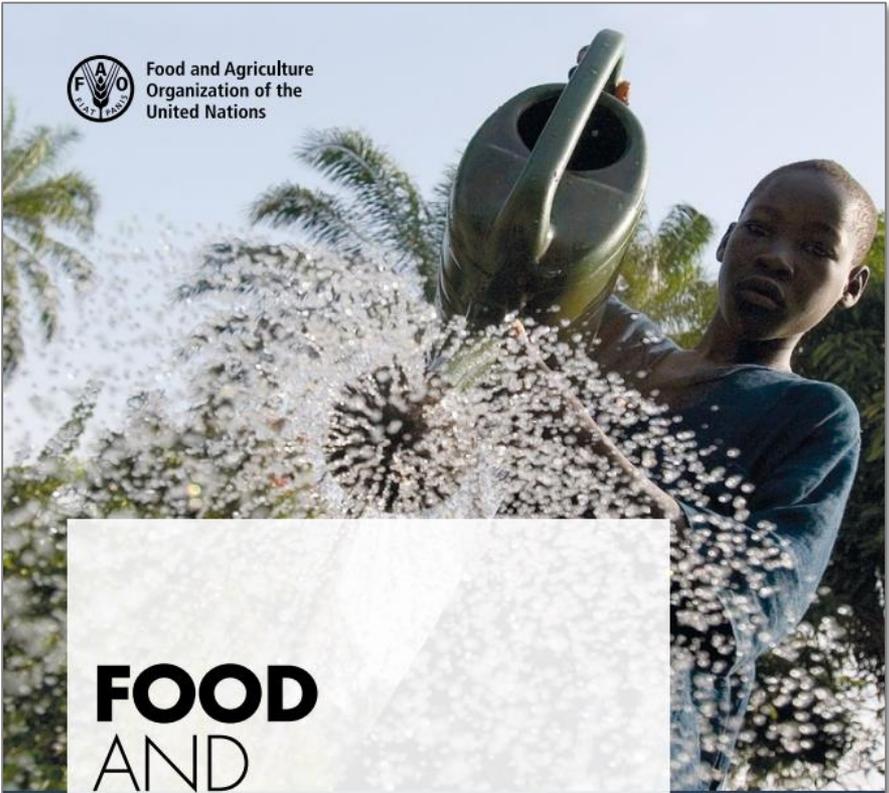
*Mapping the investments needed to  
achieve national development targets  
over a defined time frame.*



Food and Agriculture  
Organization of the  
United Nations



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United Nations



# FOOD AND AGRICULTURE

Key to achieving  
the 2030 Agenda  
for Sustainable Development

# Thank you

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