



Convergence of Sciences



# CONVERGENCE OF SCIENCES:

Strengthening agricultural innovations systems  
in Benin, Ghana and Mali

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CoS-SIS programme



# CONVERGENCE OF SCIENCES PROGRAMME WEST AFRICA

Convergence of Sciences

1 <sup>st</sup> phase	Benin and Ghana	2001-2006	€ 2.3 million
2 <sup>nd</sup> phase	Benin, Ghana and Mali	2008-2013	€ 4.7 million

## Convergence between:

- **Stakeholders (trans-disciplinarity):** science as a multi-stakeholder process – democratization
- **Social and natural sciences (inter-disciplinarity):** multi-dimensional innovations





challenge CoS programme  
Research having an impact on farmers' livelihoods

## PATHWAY OF SCIENCE

- Ensuring research relate to needs and opportunities of resource poor farmers
- *Ex ante* assessment by pioneering with:
  - Technography
  - Diagnostic studies

# NJAS

wageningen journal of life sciences

Diagnostic studies: a research phase in the Convergence  
of Sciences programme

volume **52** numbers 3 – 4  
december 2004 pages 209 – 448

**Special issue on  
Convergence of Sciences research,  
West Africa**

## International Journal of Agricultural Sustainability

CHIEF EDITOR Jules Pretty

### CONTENTS IN BRIEF

- Assessing the effectiveness of a LANC in cocoa production practices
- Understanding variation in sorghum
- Socio-cultural factors in rain and rowcrop diversity
- The social construction of weeds
- Exploring diversity among farmers
- Land tenure and sustainable soil fertility management in Benin
- Organisational linkages in the cotton industry in Benin
- Creating space for innovation
- Pathways for agricultural science impact in West Africa

**EARTHSCAN**



# LESSONS LEARNED CoS1

- Windows of opportunity too small
- Farmers need reasons to innovate







# Changing approaches agricultural R&D

(Scoones and Thompson, 2009)

	<b>ToT (1950-1970)</b>	<b>FSR (1970-1990)</b>	<b>FF/FPR (1990-2005)</b>	<b>Innovation systems</b>
Scope	Productivity	Input-output	Farm-based	Beyond farm gate
Changes	Farmer behaviour	Scientist's knowledge	Scientist-farmer relationship	Opening space for innovation (instit./prof./pers.)
Institutions and politics	Technology transfer independent	Ignored	Acknowledged	Central dimension of change
Innovators	Scientists	Scientists adapt packages	Farmers and scientists	Multiple actors

# CONVERGENCE OF SCIENCES 2ND PHASE:

Strengthening agricultural innovations systems  
in Benin, Ghana and Mali (2008-2013)

- Alleviate constraints at higher than farm level
- Innovation emerges from interaction and synergy in networks of interdependent actors
- CoS-SIS facilitates such interactions (workshops, domain advisory groups, concertation and innovation groups)

## CONVERGENCE OF SCIENCES:

### Strengthening Agricultural Innovation Systems

#### Partners:

- Benin: Université d'Abomey-Calavi
- Ghana: University of Ghana, Legon
- Mali: l'Institut Polytechnique Rural de Formation et de Recherche Appliquée, Katibougou (IPR/IFRA)
- Pays-Bas (WU, KIT, AGRITERRA)

#### National programme management teams

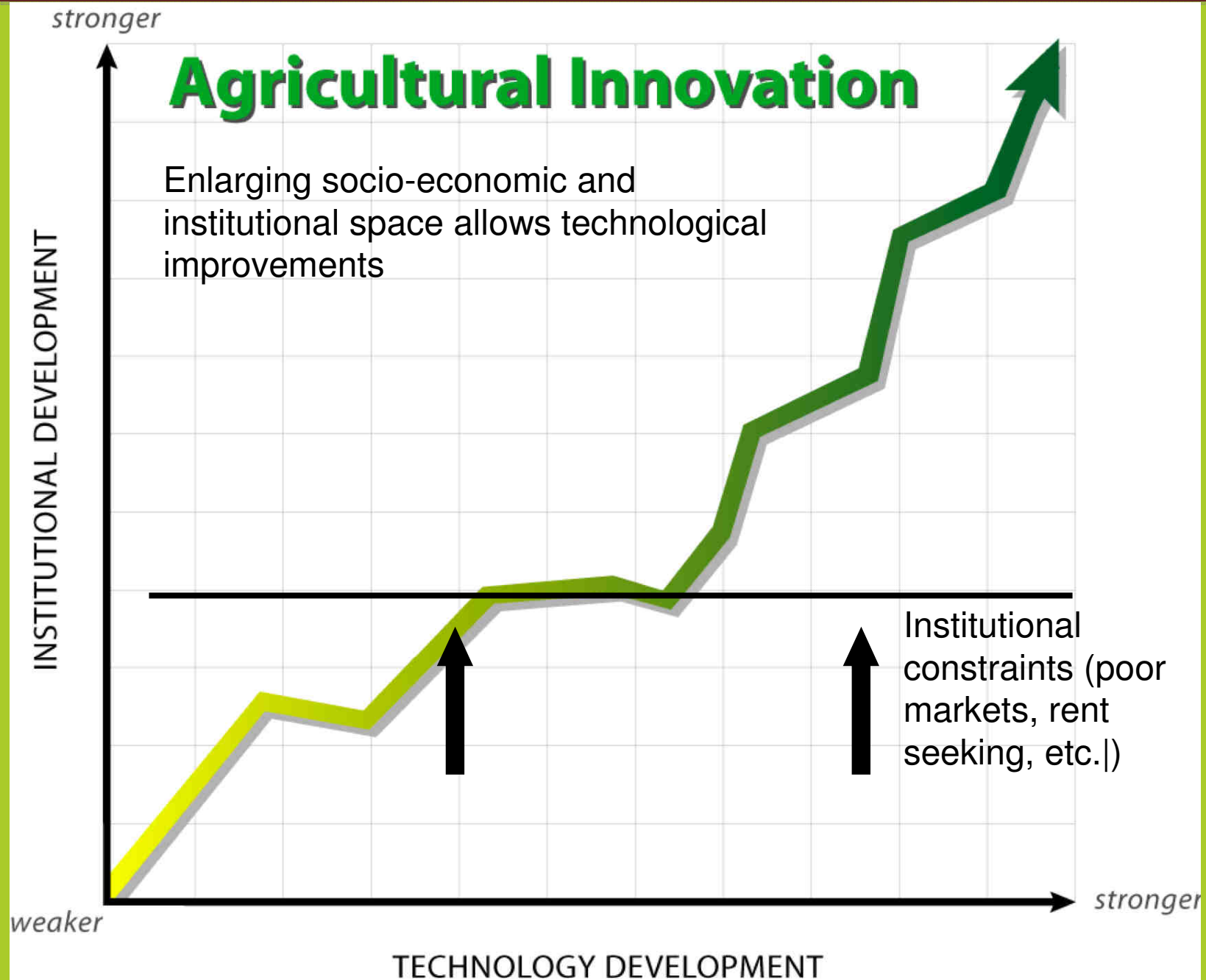
- Directors R&D
- Ministries
- FBOs
- NGOs
- Private enterprise

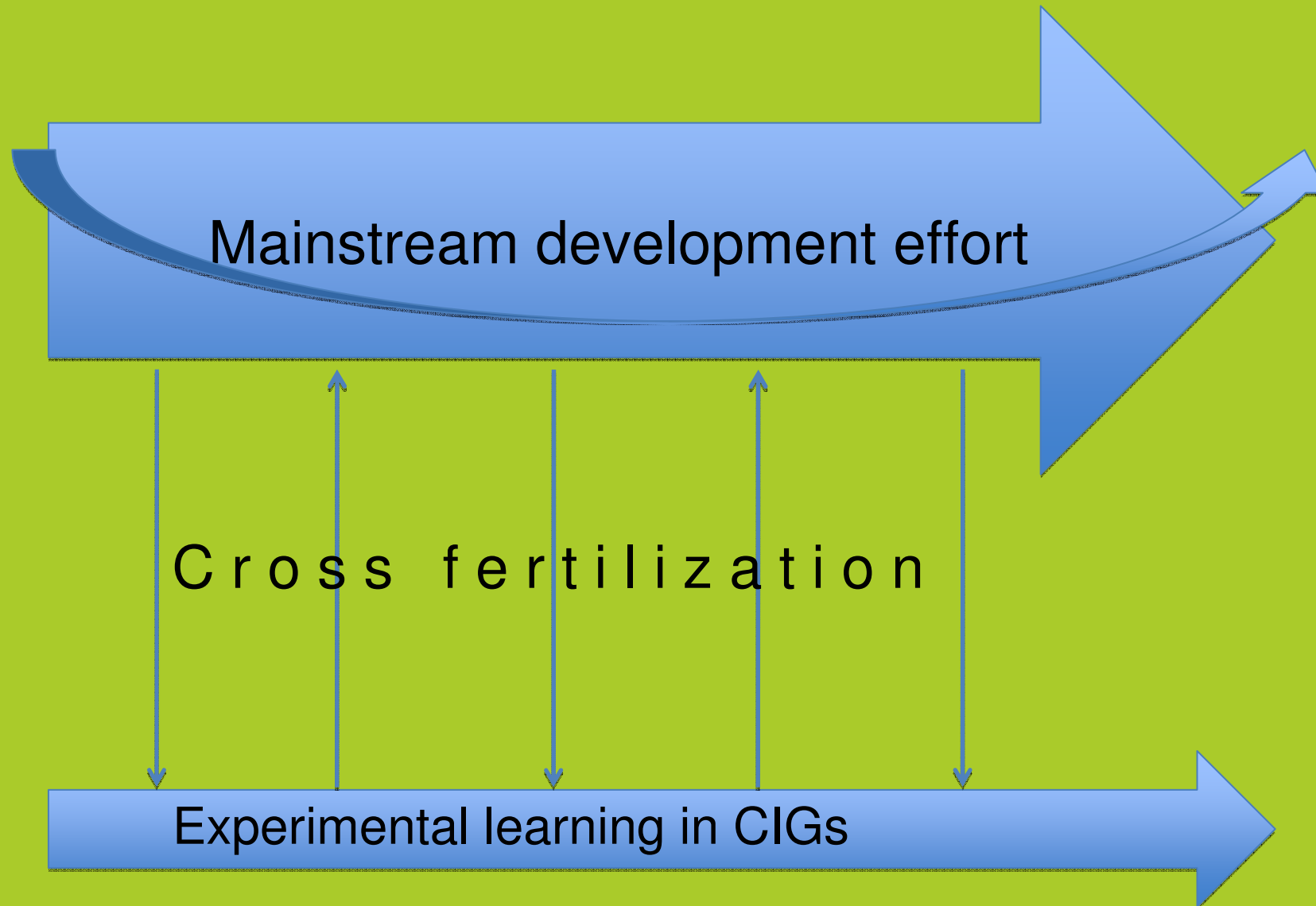
# INSTITUTIONAL EXPERIMENTATION IN DOMAINS

8 postdocs and 9 PhD students (at least one per domain)  
 19 local supervisors and 19 Dutch supervisors (both from natural and socio-economic disciplines)

Country	CoS-SIS domains
Benin	<ol style="list-style-type: none"> <li>1. Cotton</li> <li>2. Oil palm production</li> <li>3. Water management</li> </ol>
Ghana	<ol style="list-style-type: none"> <li>1. Cocoa</li> <li>2. Food security (cowpea, millet, sorghum and livestock)</li> <li>3. Oil palm production</li> </ol>
Mali	<ol style="list-style-type: none"> <li>1. Agricultural surface water management</li> <li>2. Non-woody forest products: karité</li> <li>3. Integrated livestock and fodder management</li> </ol>







CoS3 ???

# Thank you

[www.cos-sis.org](http://www.cos-sis.org)

