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INNOVATION LAB FOR FOOD SECURITY POLICY

Implementing Regional Pesticide Policies in West Africa During a Period of Rapid Market Growth:

Achievements, Challenges and Opportunities

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Outline

1. **Objectives**
2. **Market trends**
3. **Pesticide regulation**
    a) **Sahel**
    b) **Coastal countries**
4. **Lessons learned**

1. Objectives

a) **Compare implementation of regional pesticide policies**
   - in the Sahel (CILSS-CSP)
   - in coastal ECOWAS countries (WACPR-Humid Zone)

b) **Identify reasons for uneven implementation of regional pesticide regulations**

c) **Lessons learned**
   - for accelerating regional pesticide implementation in coastal countries
   - for USAID's regional work

Methods

- **7 country studies**
  - **Market review**
  - **Regulatory review**

Table 1. Countries Selected for Regional Pesticide Case Study*		
Market size	***CILSS CSP Countries***	***Coastal ECOWAS Countries***
Large		**Cote d'Ivoire*** **Ghana*** **Nigeria****
Medium	Burkina Faso **Mali*** **Senegal***	**Guinea***
Small	Cape Verde, Chad, **Gambia*,** Guinea Bissau, Mauritania, Niger	Benin, Liberia, Sierra Leone, Togo
'*Full case study countries; **Rapid appraisal only.		

2. Pesticide market trends

- **Total pesticide imports: $885 million**
- **Herbicides dominate**

Table 2. Pesticide imports into West Africa, 2015*

Pesticide products	Imports: $ millions	Imports: percent
Herbicides	552	62%
Insecticides	229	26%
Others**	104	12%
Total	885	100%

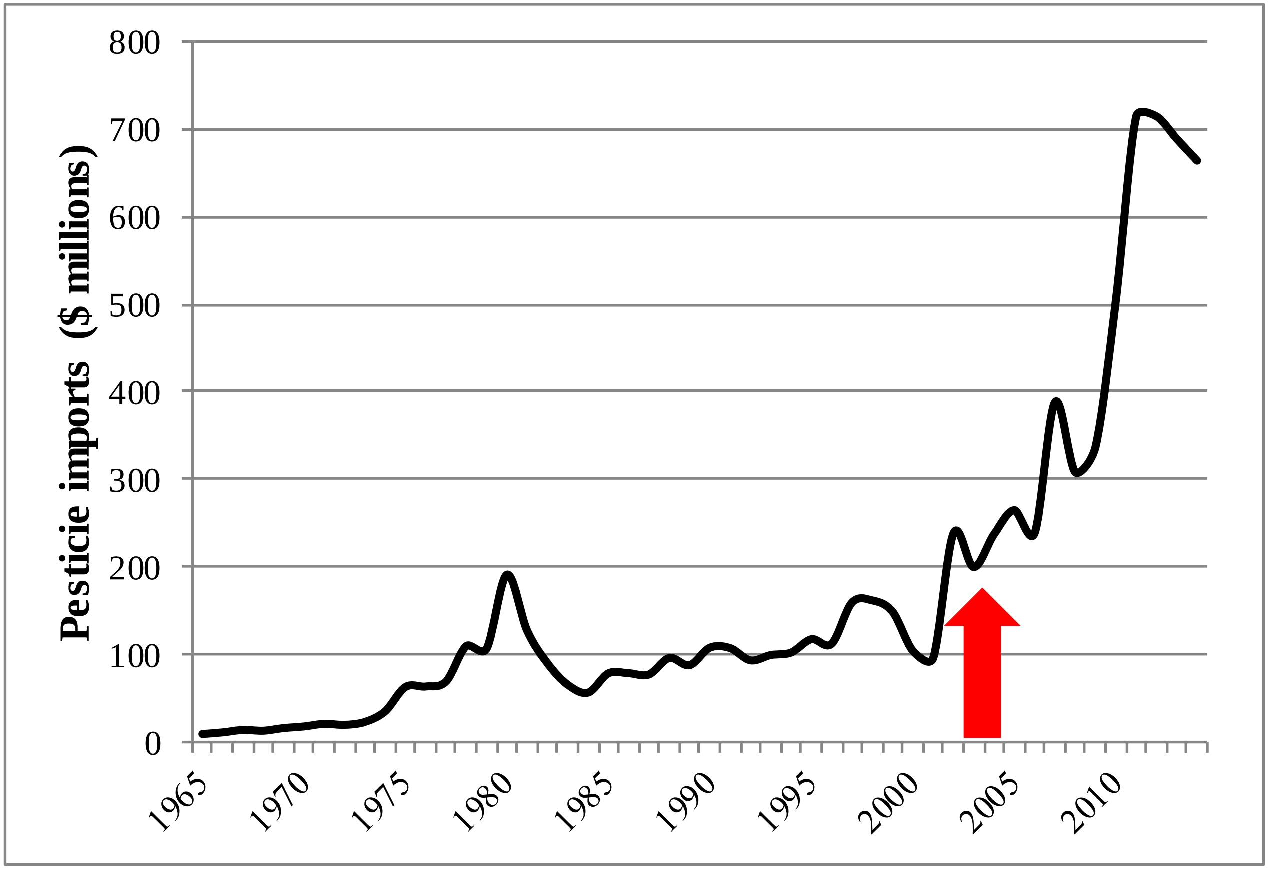
* average, 2014 to 2016

** fungicides, growth regulators, rodenticides, nematicides

Source: COMTRADE (2017), FAOSTAT (2017).

a) Rapid market growth

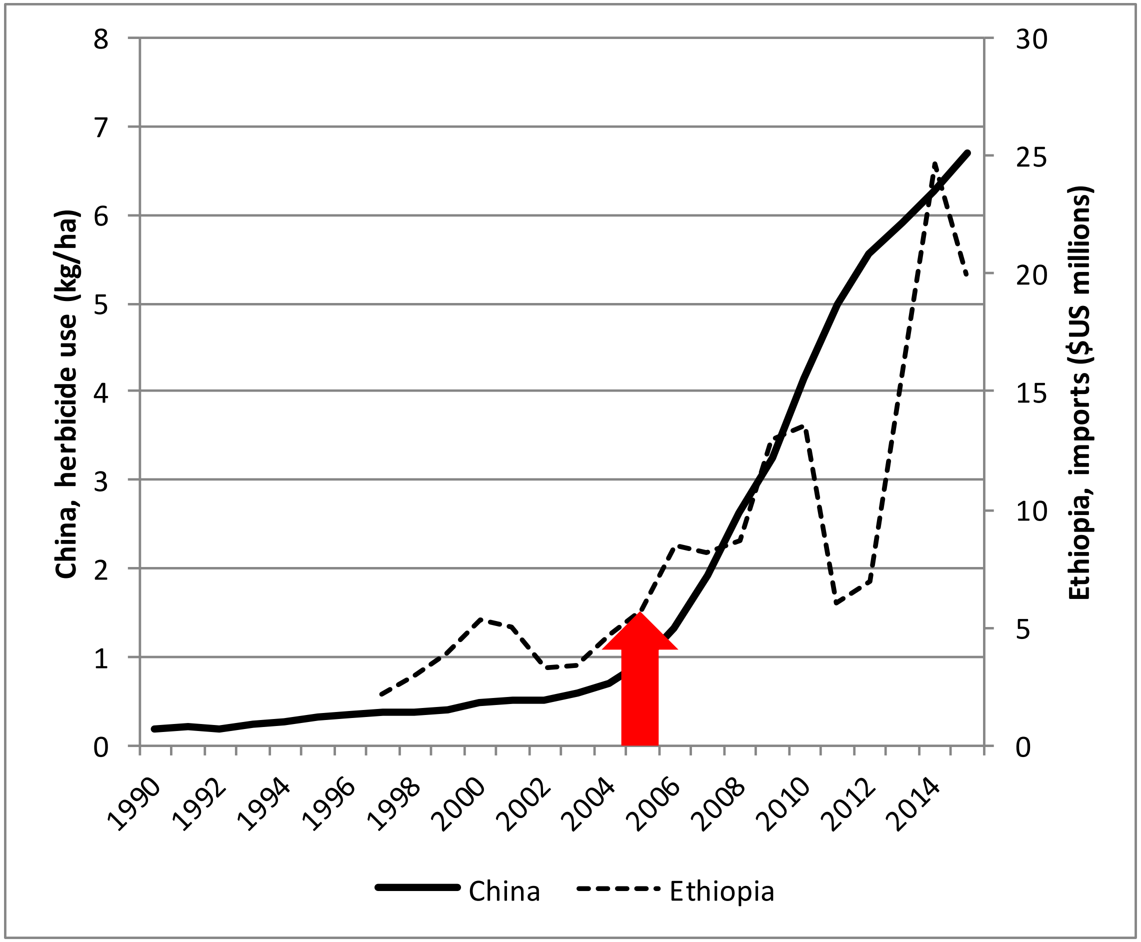
Figure 1. Pesticide import trends in West Africa



Source : COMTRADE (2017)

a) Rapid growth globally

Figure 2. Trends in herbicide use in China and Ethiopia



Source: Huang et al. (2017), Tamru et al. (2017)

b) Drivers of market growth

- **Global drivers**
  - Expiring international patents
  - Rise of generic pesticides
  - Emerging low-cost Asian suppliers
  - Falling global prices
  - House brands

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Number of global patents issued
for new pesticide active ingredients (AI)

	Patents per year
1990s	13
2000s	10
2010s	7

Source: Dominguez (2015)

b) Drivers of market growth

- **Global drivers**
  - Expiring international patents
  - **Rise of generic pesticides**
  - Emerging low-cost Asian suppliers
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Market share of off-patent pesticides

	Market share
2013	78%
2020	90%

Source: Dominguez (2015)

b) Drivers of market growth

- **Global drivers**
  - Expiring international patents
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Chinese herbicide exports:

1990	0
2015	$2 billion

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- **Global drivers**
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Falling glyphosate prices, 1990 to 2015

USA	-50%
China	-70%
Mali	-50% (from 2000)

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  - Urbanization
  - Rural-to-urban labor migration
  - Rising farm labor costs
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In 2015, herbicides cost half as much as hired weeding labor in southern Mali.

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  - Rising farm labor costs:
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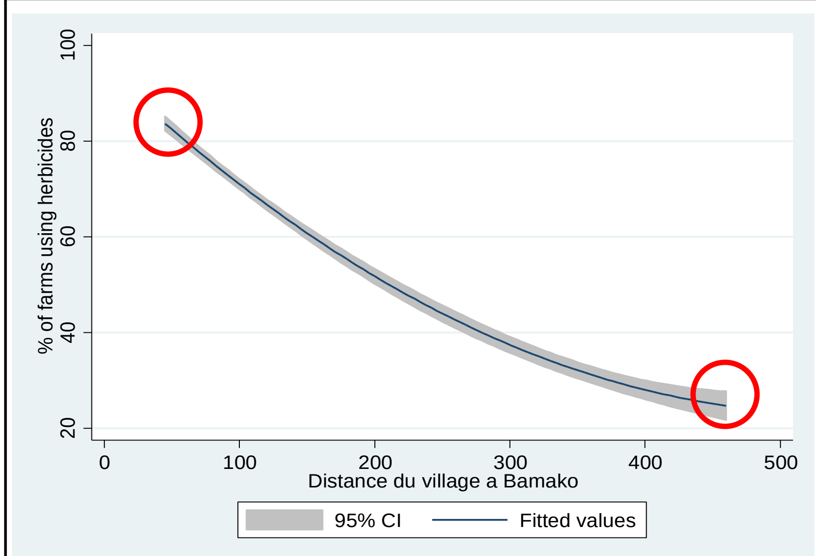
a. Herbicide adoption, Mali (% of plots)



Source: Haggblade et al. 2017.

c) Consequences of rapid market growth

- New traders
- Proliferating pesticide brands
- Counterfeit and unregistered pesticides
- Monitoring capacity can’t keep pace
- Quality problems unmonitored
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Table 3. Trends in the number of registered pesticide traders and applicators

	2000	2016	annual growth rate
Côte d'Ivoire			
importers	12	67	11%
retailers	113	779	13%
applicators	44	396	15%
Guinea			
importers	2	21	16%

Sources: Traore and Haggblade (2017a, 2017b).

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INITIAL FINDINGS, 100 GLYPHOSATE SAMPLES
- 24% below 75% of stated concentration
- 12% over 125% of stated concentration

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3. Regional pesticide policy implementation

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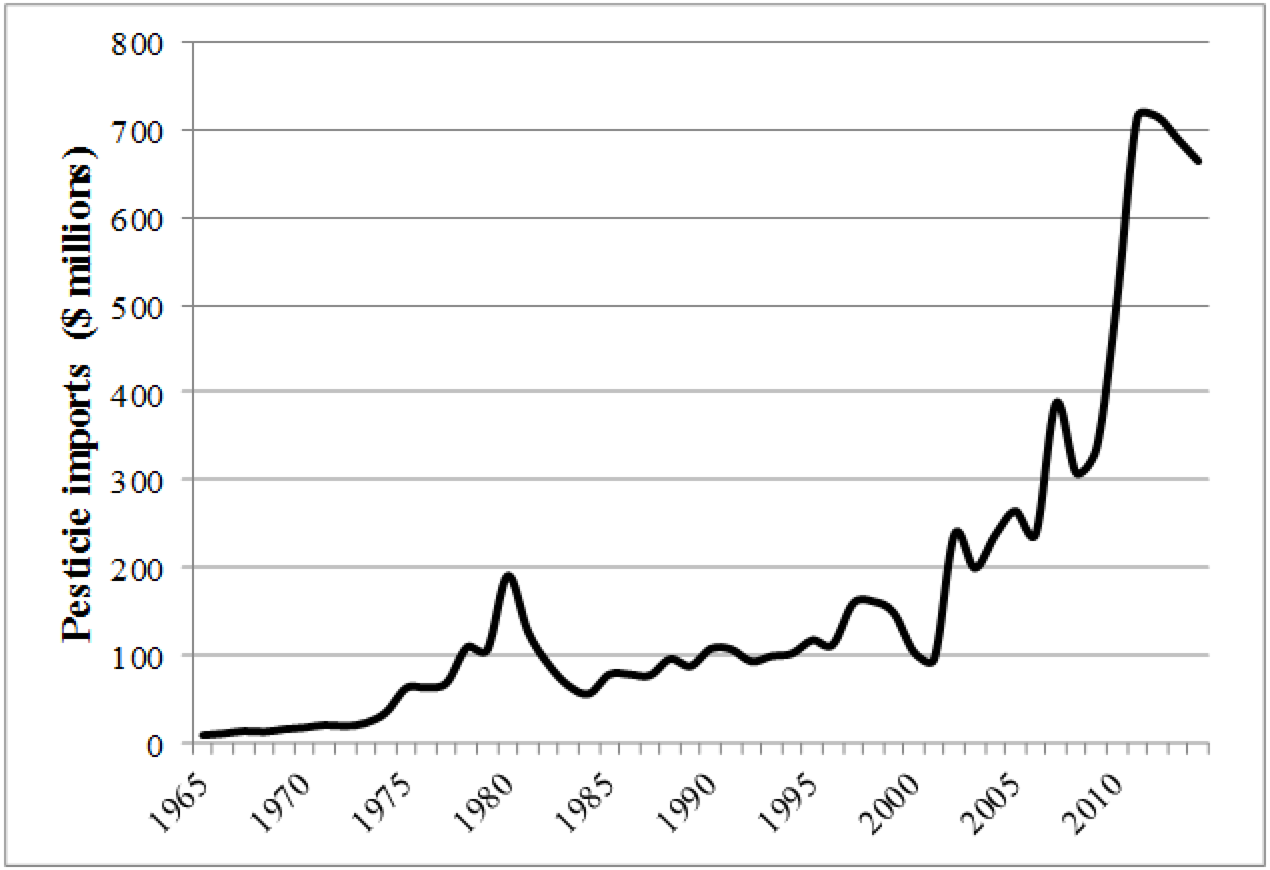

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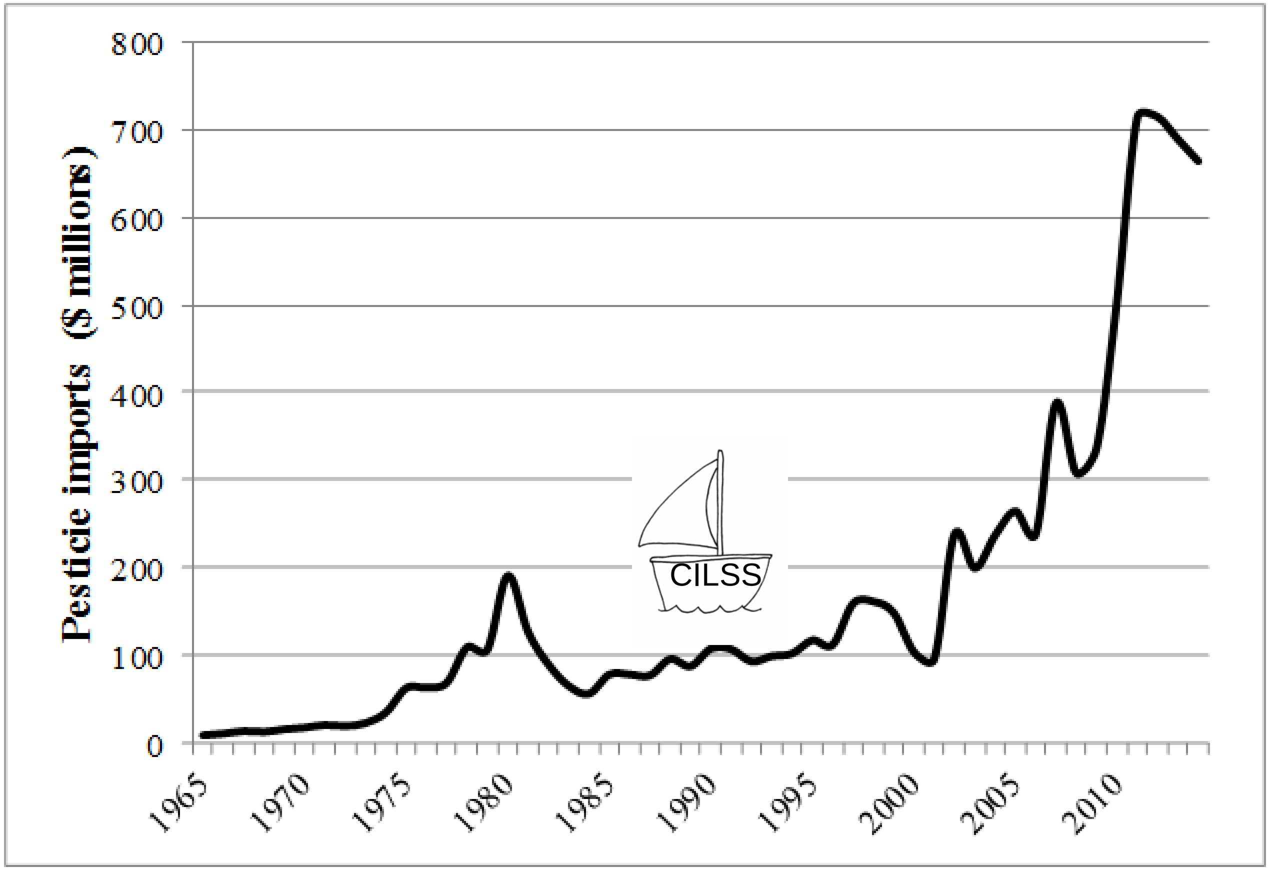

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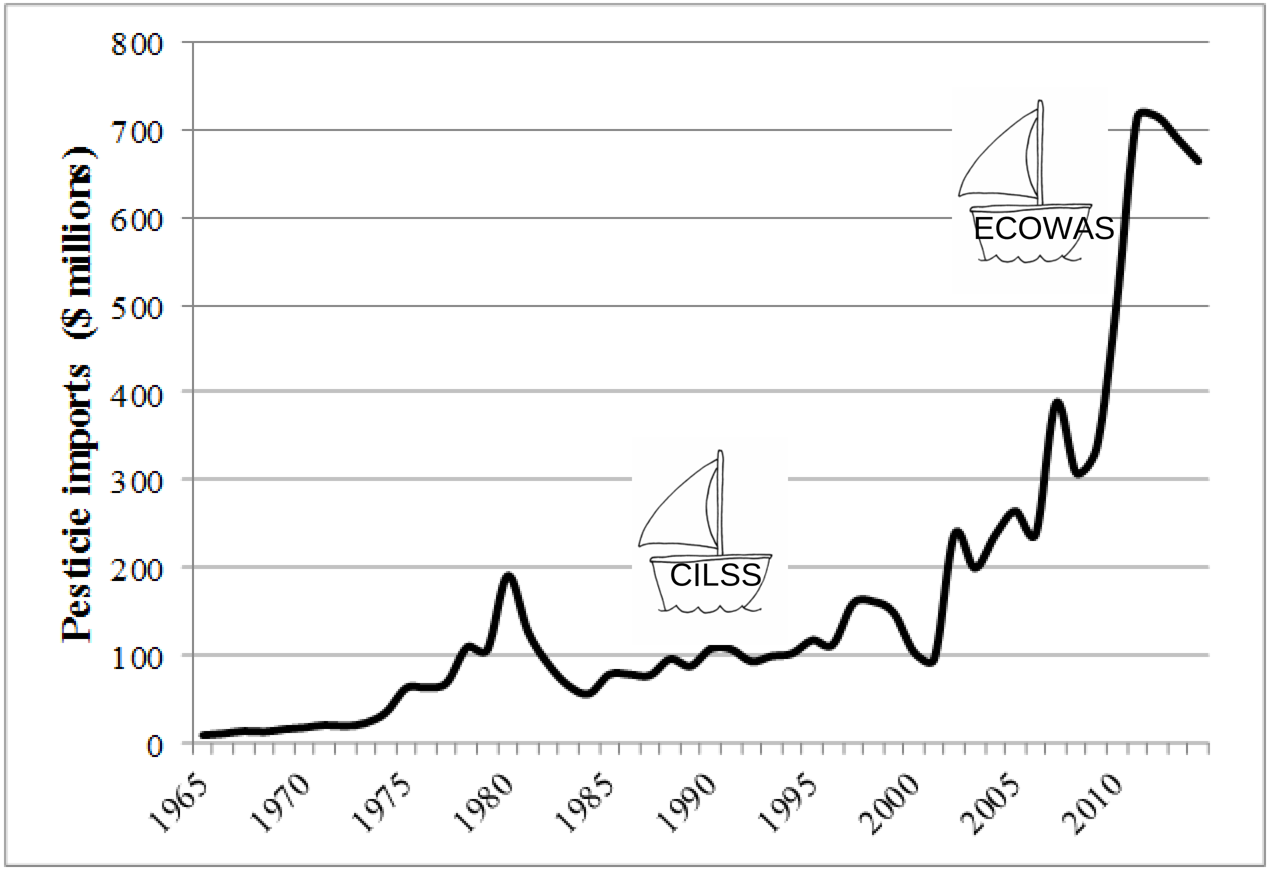

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1. **Sahelian countries, 1992 onwards**
   - Pest invasions 1970’s and 1980’s
   - Regional control efforts through CILSS
   - CILSS issues regional pesticide regulations 1992
   - CSP operates from March 1994
   - Countries cooperate; see benefits of pooling scarce technical resources
   - Legal “domestication” requires two rounds and over a decade

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1. **Sahelian countries, 1992 onwards**

   Round 1. Regional regulations implemented but not legally "domesticated" by member countries

   - CILSS regulations 1992
   - CSP established 1994, operates continuously
   - Countries participate and accept CSP decisions
   - Countries issue non-conforming regulations and legislation

   Round 2. Legal "domestication" by countries

   - Legal review of nonconforming legislation and regulations
   - CILSS issues new regional regulations, 1999
   - 8 countries issue conformation national laws
   - By 2005 all but Guinea Bissau embed CILSS regulations into national law
   - CSP continues to operate continuously to register pesticides regionally

3. Regional pesticide policy implementation

1. Sahelian model

Regulatory phases	Tasks	Responsibility
Pre-registration	New product testing	National regulators
Registration	Review applications Decide on approvals	**Regional collective decision (CSP)**
Post registration	Register traders Market monitoring Environmental impact Health impact	National regulators

3. Regional pesticide policy implementation

2. Coastal countries, 2008 onwards

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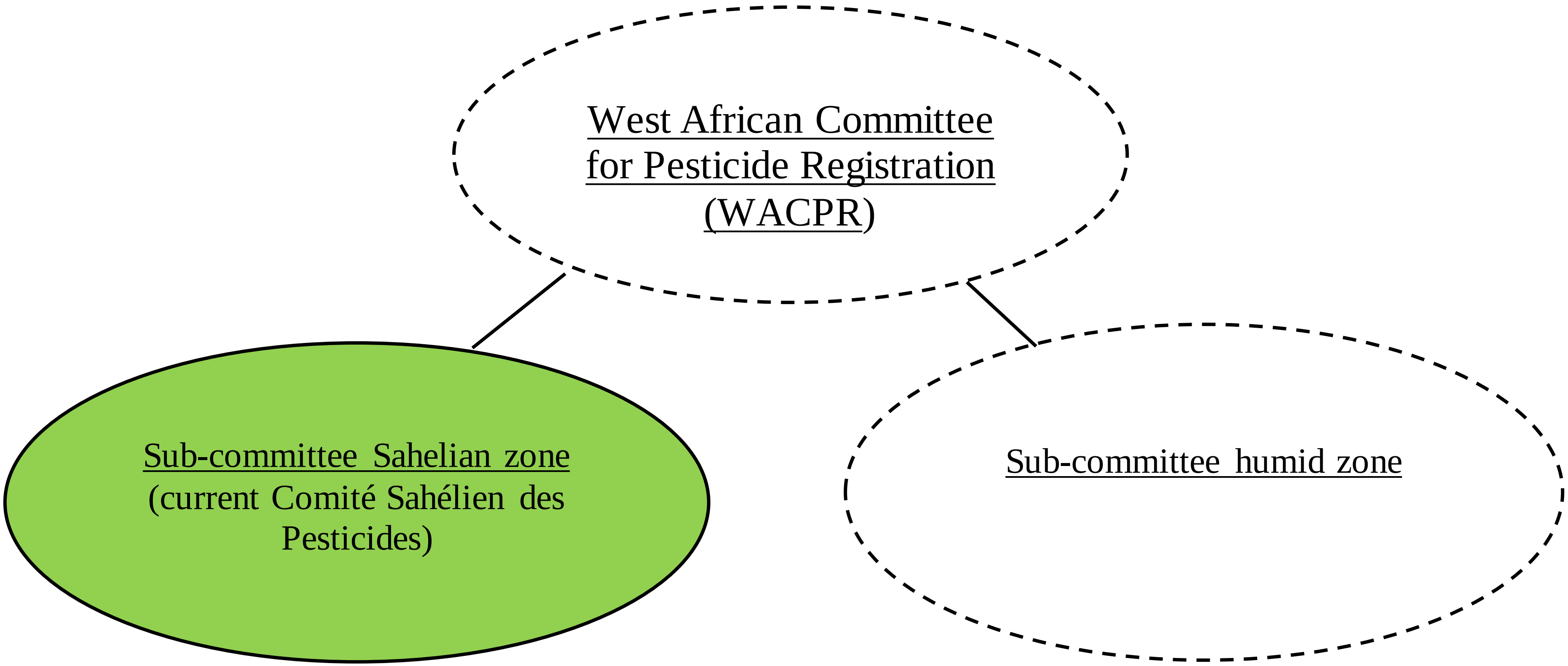

3. Regional pesticide policy implementation

2. Coastal countries, 2008 onwards

Round 1. Minimal implementation (2008-2012)

- ECOWAS regional pesticide regulations, 2008
- CSP continues to function as WACPR-Sahelian Zone
- No overall WACPR secretariat established
- No WACPR-Humid Zone established
- Coastal countries move slowly in absence of a regional regulator

Round 2. ECOWAS enlists CSP to jump-start implementation in coastal countries (2013-present)

- CSP begins technical consultations with coastal countries
- UEMOA supports NPMC launch in coastal member countries
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- Tri-partite agreement ECOWAS, CILSS, UEMOA: September 2017
- CSP to serve at transitional Coordinating Unit for WACPR

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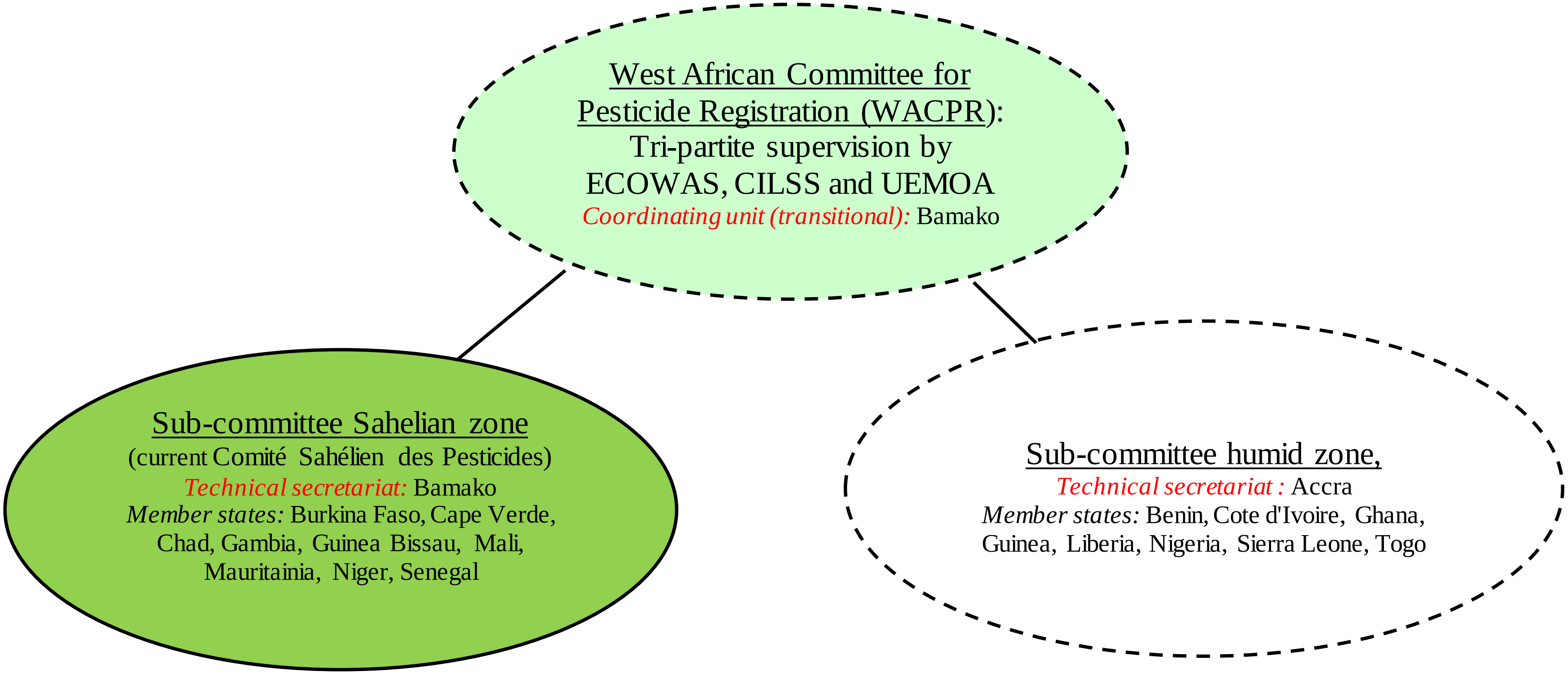
West Africa Committee for Pesticide Registration (WACPR)



Why did CSP launch quickly in the 1990s?

- Early introduction of CILSS regulations (1992)
- Limited national legislation; new laws modeled on CILSS template
- Small, slow-growing pesticide markets during transition phase
- Decades of prior collaboration fighting drought and regional pest invasions
- Strong commitment to working together to control pests
- Small countries, scarce resources → willingness to share

Obstacles to WACPR implementation in the coastal countries

- Late start, during a period of rapid pesticide market growth
- No sub-regional regulator (WACPR-Humid Zone) in place
- Well-established national regulators already exist
- Conflicting national registration decisions
- Differing institutional structures and legislation for national regulators
- National regulators risk losing financial resources to the new sub-regional regulator

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Table 3. Number of pesticides registered by national regulators in the coastal countries, 2015

	Herbicides	Insecticides	Other	Total pesticides
Côte d'Ivoire	432	607	271	1,310
Ghana	212	205	91	508
Guinea	94	54	14	162

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Table 4. Differing ministerial homes for pesticide regulators in the case study countries

	Ministry of Agriculture	Ministry of Health	Ministry of Environment
Côte d'Ivoire	√		
Gambia			√
Ghana			√
Guinea	√		
Mali	√		
Nigeria		√	
Senegal			√

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Ghana			√
Guinea	√		
Mali	√		
Nigeria		√	
Senegal			√

Advantages favoring WACPR implementation in the coastal countries

- HIP project (1993-99) → common registration and testing requirements in 5 coastal countries (Benin, Cote d'Ivoire, Ghana, Guinea, Togo)
- UEMOA willing to finance NPMCs
- CILSS expansion to 4 coastal countries (Cote d'Ivoire, Guinea, Benin, Togo) → experience observing CSP in action

4. Lessons for the coastal countries

1. Mobilize new financial resources for national and regional regulators: need high-level review
2. Technical harmonization
3. Legal harmonization
4. Launch sub-regional technical secretariat for the coastal countries

4. Lessons for USAID

1. Regional pesticide policies
   a. Short run: CSP needs help urgently (i) high-level financial review of regional and national regulators; (ii) transition financing
   b. Medium run: post-registration monitoring support (counterfeits, product quality, environmental impact, human health)
   c. CSP, not CORAF, has expertise and mandate from ECOWAS
2. Regional fertilizer and seed policies
   a. Differences with pesticides: (i) slow market growth; (ii) national not regional regulators
   b. Similarities: (i) post-registration monitoring difficulties (counterfeiting, few accredited labs, low national enforcement capacity)

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