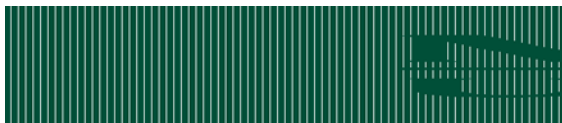


# The Changing Asian Rice Economy and its Implications for the Development of the Rice Subsector in West Africa

Ramziath T. Adjao and John M. Staatz

Michigan State University

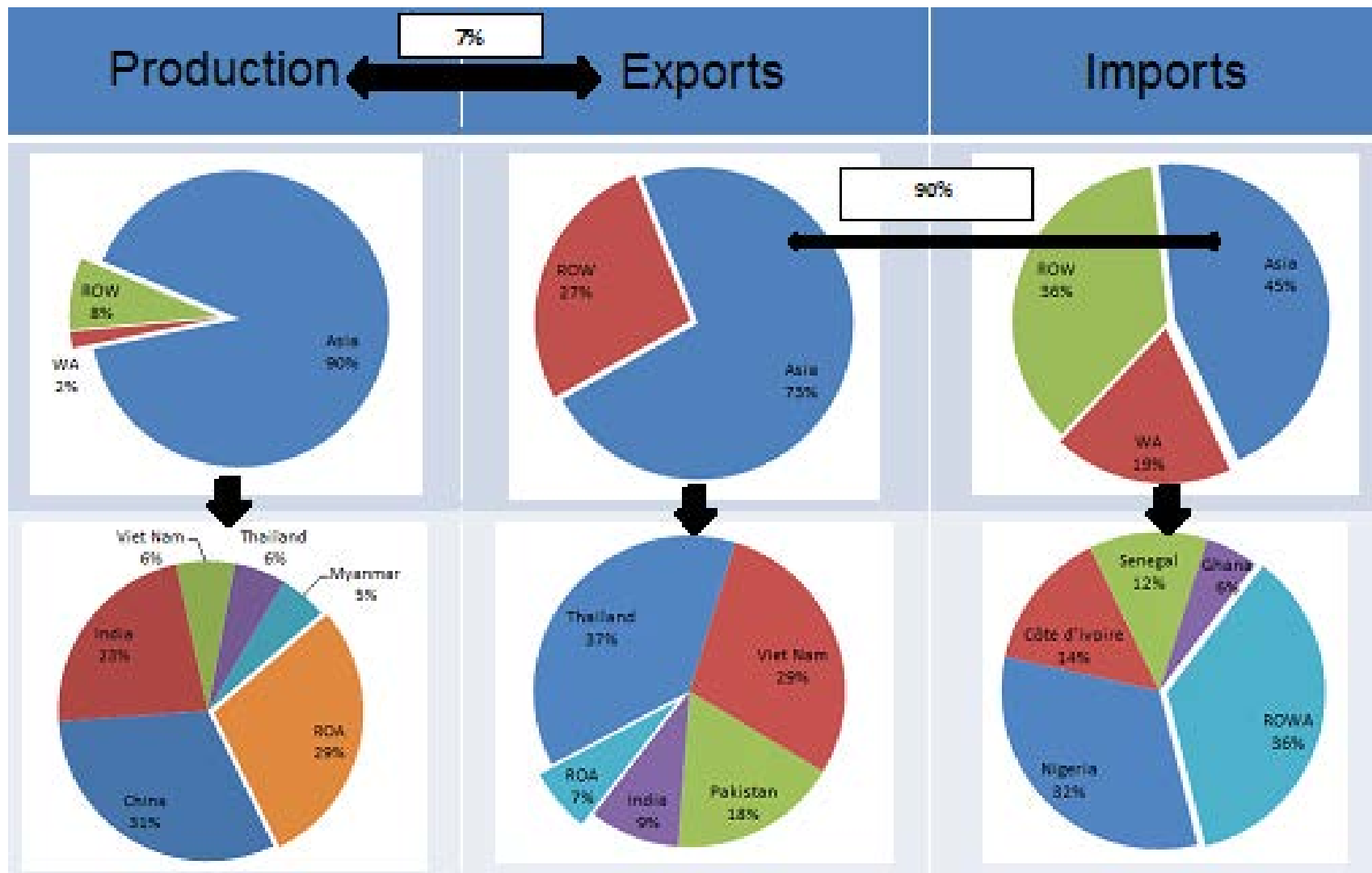
October 2013



**syngenta** foundation  
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**3<sup>rd</sup> Africa Rice Congress**   
21-24 October 2013, Yaoundé, Cameroon

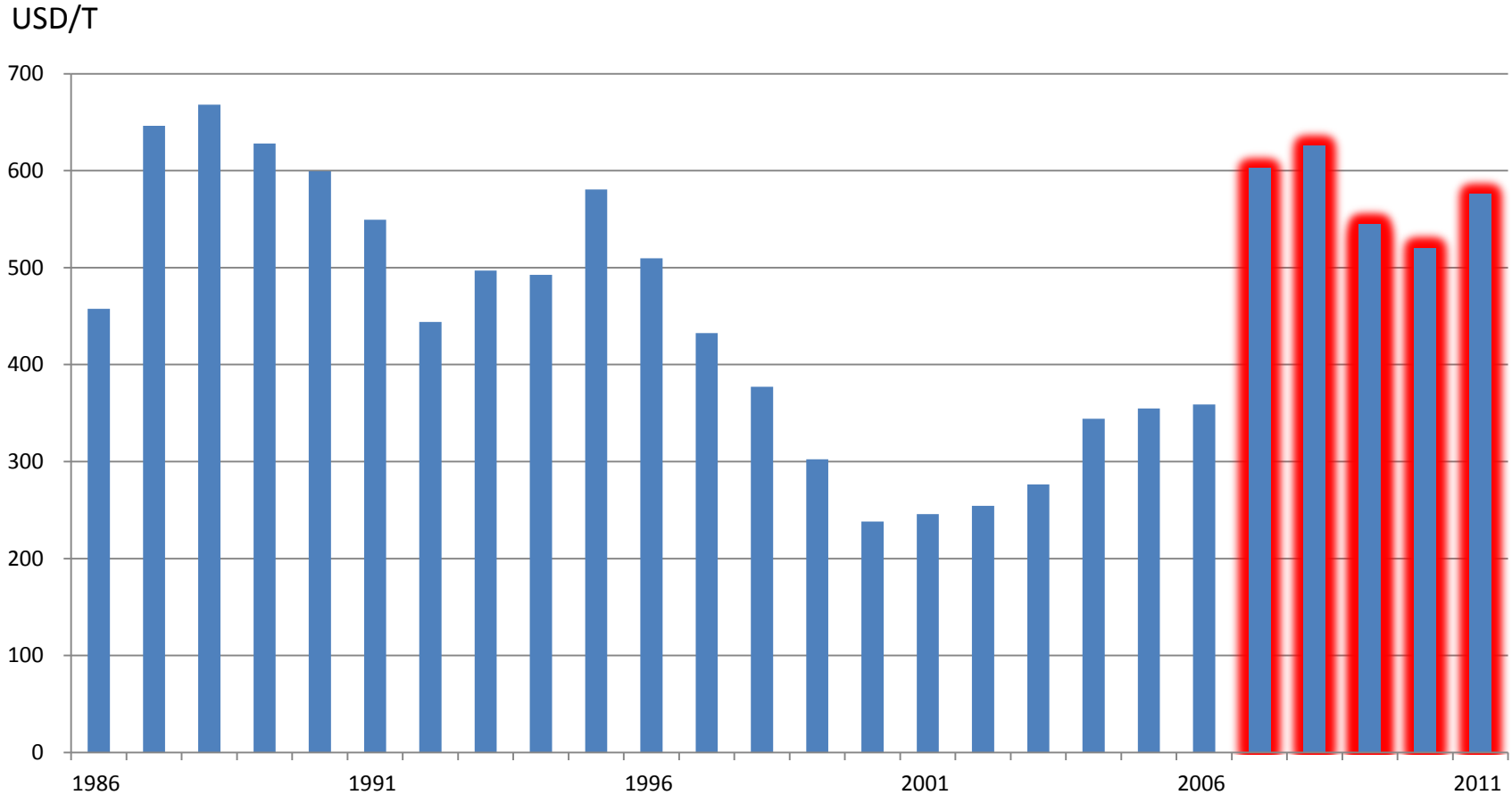
# The Importance of Asia in the Global Rice Market



Source: FAOSTAT



# A Thin, Segmented and Volatile World Rice Market



Thai 5% broken, f.o.b. price adjusted for inflation (2005=100)

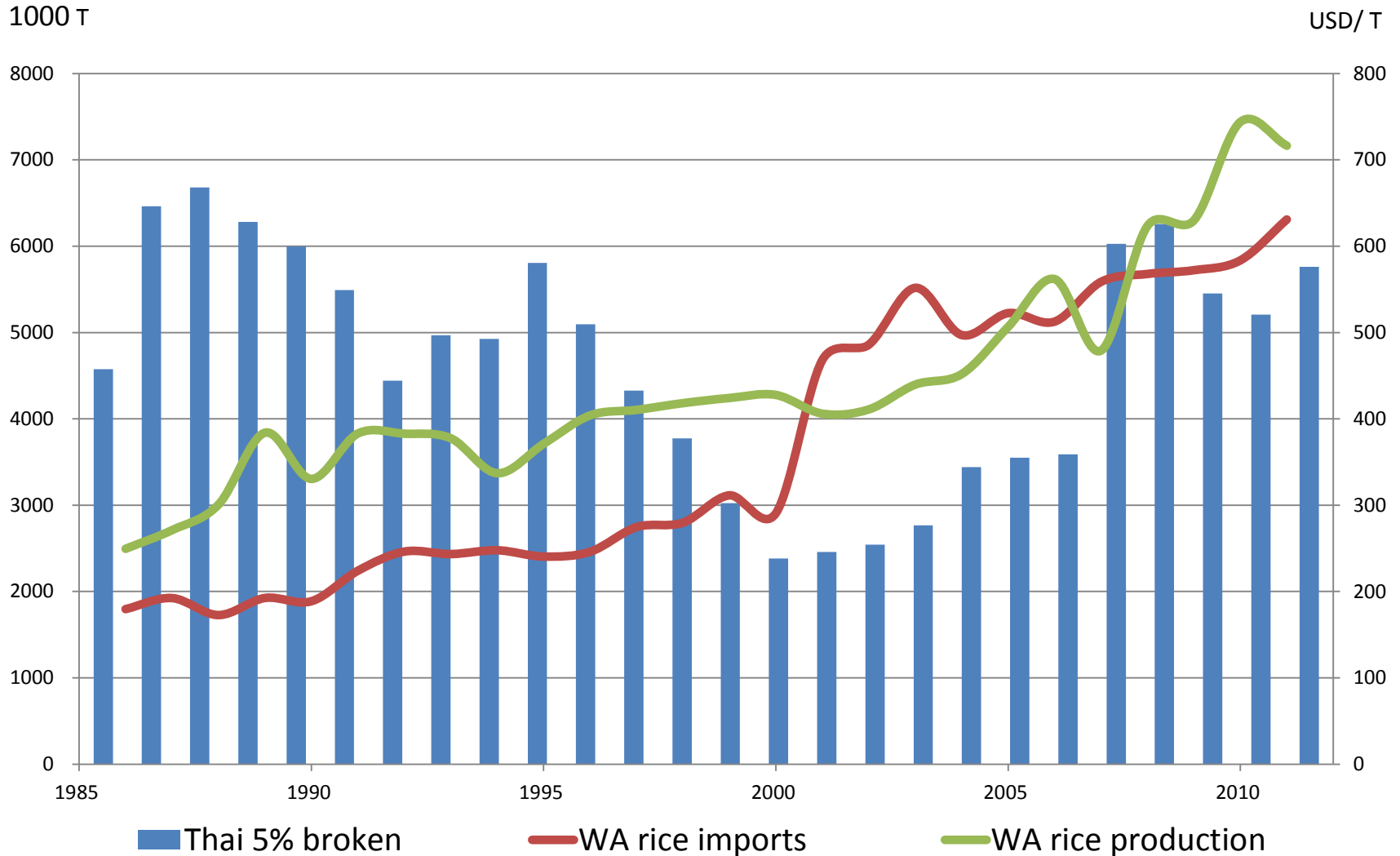
Source: USDA & IMF data



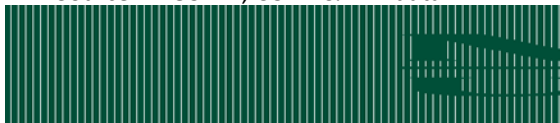
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# The Growing Importance of Rice in West Africa



Source: FAOSTAT, USDA & IMF data

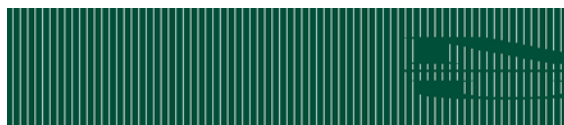


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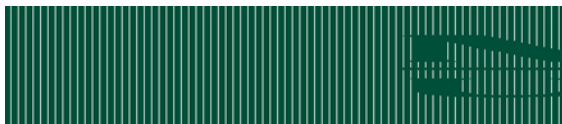
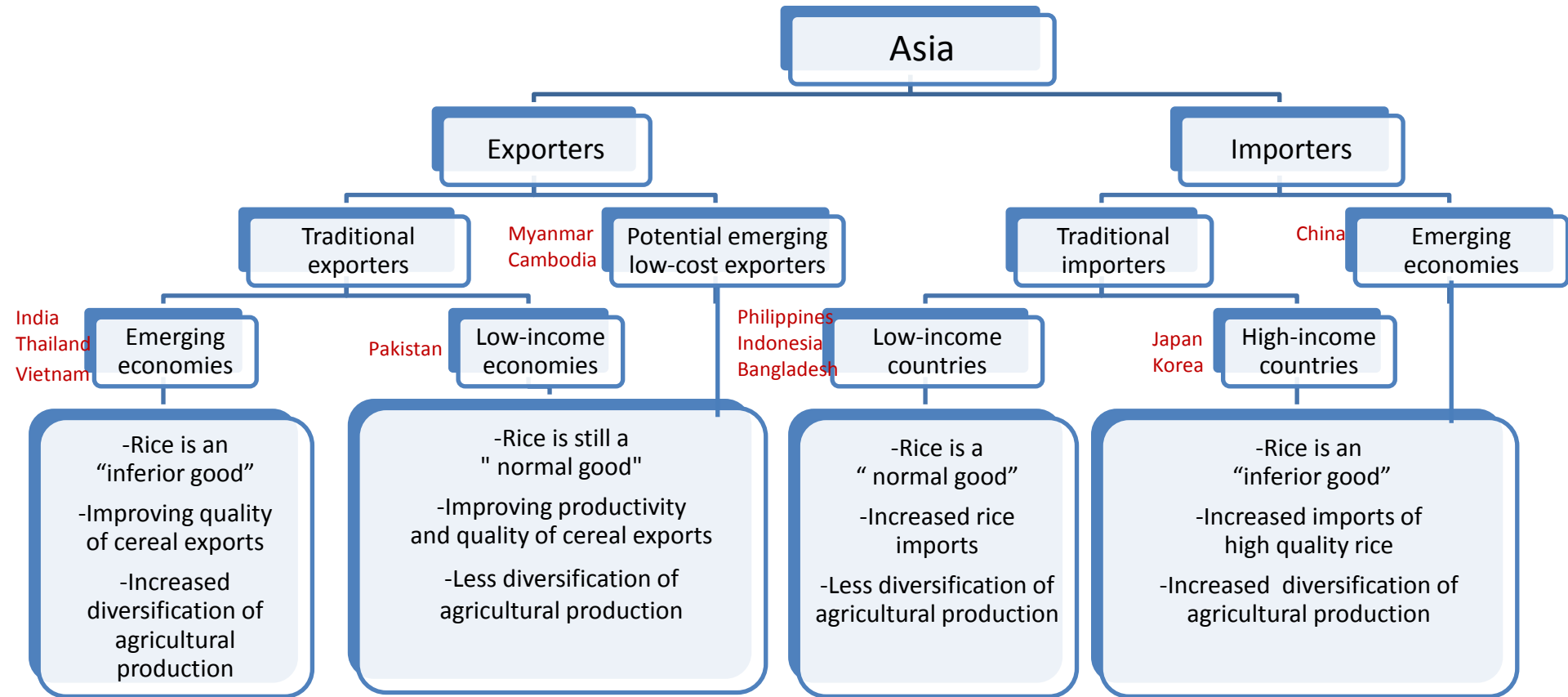
3<sup>rd</sup> Africa Rice Congress  
21-24 October 2013, Yaoundé, Cameroon

# Structural Change and Emerging Trends in Asia

- **Structural change**
  - Increased income
  - Urbanization
- **... leading to diversification of diets**
  - Decreased per capita consumption of rice
  - Increased per capita consumption of fruits, vegetables and meat
- **... and diversification of production into higher value crops**
  - Increasing competition between rice & other crops for water and land
  - Falling cereal prices relative to inputs costs
  - Diminishing returns to modern varieties
  - Declining TFP of rice



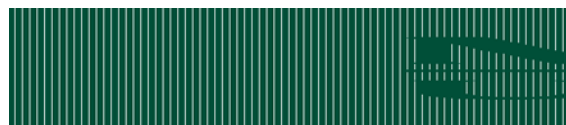
# Agricultural Trends in Asia



# Perspectives of the World Rice Markets

	Asia		West Africa	
	Current	Trend	Current	Trend
Consumption per capita (kg/year)	80	↑	37	↑ ↑ ↑
Production (1000 T paddy)	650 055	↑	13 079	↑ ↑
Area (1000 ha)	145 543	↓	6 365	↑ ↑
Yield ( T/ha)	4.5	↑ ↑	2.1	↑
World price of rice (\$/T)	576	↓	576	↓
Energy/input costs (\$/T)	195	↑	195	↑ ↑
Net Trade (1000 T)	9 815	↑	- 5 175	↓

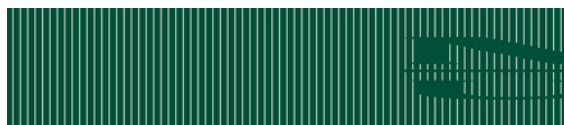
Source: FAOSTAT, USDA & IMF data



# Perspectives of the World Rice Markets











	Asia		West Africa	
	Current	Trend	Current	Trend
Consumption per capita (kg/year)				↑ ↑
Production (10 <sup>6</sup> T)			↑ ↑	
Area (10 <sup>6</sup> ha)				↓
Yield (T/ha)				
Rice price (US\$/T)				↓
Energy/input cost (US\$/T)	15		195	↑ ↑
Net Trade (1000 T)	9 815	↑	- 5 175	↓

**The changing structure of the rice economy in Asia suggests scope for greater rice production/self-sufficiency in West Africa...**

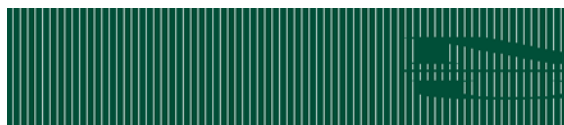




# Perspectives of the World Rice Markets

	Asia			
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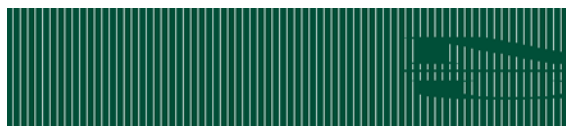
Reduction of consumption and exports from emerging Asian economies like China



# Perspectives of the World Rice Markets

	Asia		West Africa	
	Current	Trend	Current	Trend
Consumption per capita (kg/year)	80	↑	37	↑ ↑ ↑
Production (1000 T paddy)	650 055	↑		↑
Area (1000 ha)	145 543			
Yield ( T/ha)	4.5			
World price of rice (\$/T)	576	↓		↓
Energy/input costs (\$/T)	195	↑	195	↑ ↑
Net Trade (1000 T)	9 815	↑	- 5 175	↓

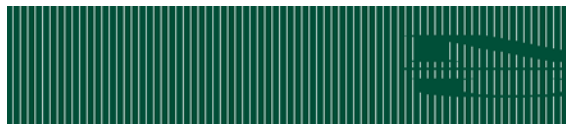
Increasing imports from low-income countries like the Philippines, Indonesia and Bangladesh



# Perspectives of the World Rice Markets

	Asia		West Africa	
	Current	Trend	Current	Trend
Consumption per capita (kg/year)	88	↑	88	↑
Production (1000 T paddy)	9815	↑	5175	↓
Area (1000 ha)	2100	↑	2100	↑
Yield ( T/ha)	4.5	↑	4.5	↑
World price of rice (\$/T)	576	↓	576	↓
Energy/input costs (\$/T)	195	↑	195	↑ ↑
Net Trade (1000 T)	9 815	↑	- 5 175	↓

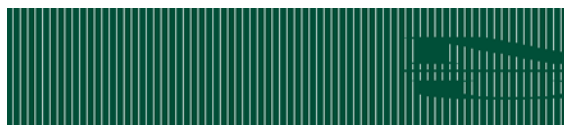
Increased maritime freight rates between Asia and WA



# Perspectives of the World Rice Markets

	Asia		West Africa	
	Current	Trend	Current	Trend
Consumption per capita (kg/year)				↑ ↑
Production (10 <sup>6</sup> T)			↑ ↑	
Area (10 <sup>6</sup> ha)				↓
Yield (T/ha)				
Rice price (US\$/T)				↓
Energy/input cost (US\$/T)	15		195	↑ ↑
Net Trade (1000 T)	9 815	↑	- 5 175	↓

**... BUT there still will be important competitive pressures from Asia.**

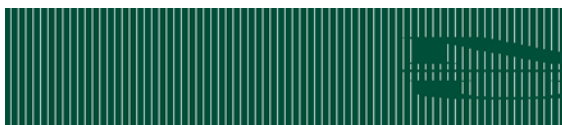




# Perspectives of the World Rice Markets

	Asia		West Africa	
	Current	Trend	Current	Trend
Consumption per capita (kg/year)	80			
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Yield ( T/ha)	4.5			
World price of rice (\$/T)	576		576	
Energy/input costs (\$/T)	195		195	
Net Trade (1000 T)	9 815		- 5 175	

Expansion of output from potential low-cost producers (Myanmar and Cambodia)

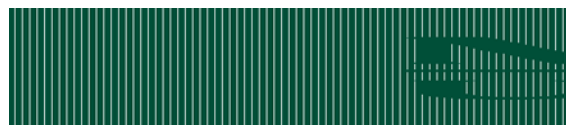


# Perspectives of the World Rice Markets

	Asia		West Africa	
				Trend
Consumption per capita (kg/year)				↑ ↑
Production				↑
Area (1000 ha)				↑ ↑
Yield (T/ha)		↑	2.1	↑
World price of rice (\$/T)	576	↓	576	↓
Fuel and energy costs (\$/T)	195	↑	195	↑ ↑
Net Trade (1000 T)	9 815	↑	- 5 175	↓

Decreased relative price of rice to input cost likely to:

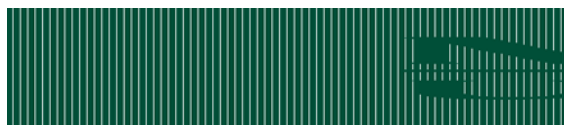
- 1) spur higher costs of intensification
- 2) restrain regional trade (fuel costs)



# Perspectives of the World Rice Markets

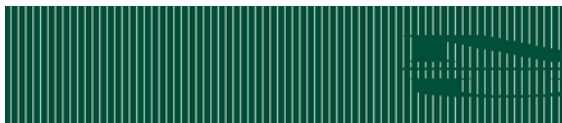
	Asia		West Africa	
	Current	Trend	Current	Trend
Consumption per capita (kg/year)				↑ ↑
Production (10 <sup>6</sup> T)			↑ ↑	
Area under cultivation (10 <sup>6</sup> ha)				↓
Yield (T/ha)				
Rice price (US\$/T)				↓
Energy/Input cost (US\$/T)	155		195	↑ ↑
Net Trade (1000 T)	9 815	↑	- 5 175	↓

**Thus, WA cannot just rely on expected future high world rice prices BUT rather focus on improving competitiveness**



# Implications for the Future Competitiveness of West Africa

- **Increasing farm-level productivity**
  - Scope for productivity increase vary across ecologies (irrigated, lowland, and upland) – TFP vs yield
  - Improving lowlands would offer a favorable environment for expansion of rice production
- **Decreasing per-unit costs throughout the value chain**
  - Off-farm transaction costs and transports costs in WA remain among the highest in the world
  - Need to increase consistent supply of paddy to medium & large scale millers by improving contractual linkages between farmers and millers
- **Improving product quality and market segmentation**
  - Higher quality locally produced rice fetches a premium (up to 20%) over imported rice in some countries
  - Need to improve post-harvest operations by improving contractual linkages between smallholders and processors as well as wholesaling functions





THANK YOU !!!

MERCI !!!

