## Trends in Rice Production and Consumption during the CARD period 2008-2018

**Compiled by AfricaRice** 

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## Outline

- 1. Introduction
- 2. Trends in production, area and yield
- 3. Milled rice production and consumption
- 4. Achievement of CARD objectives
- 5. Looking forward
- 6. Conclusion



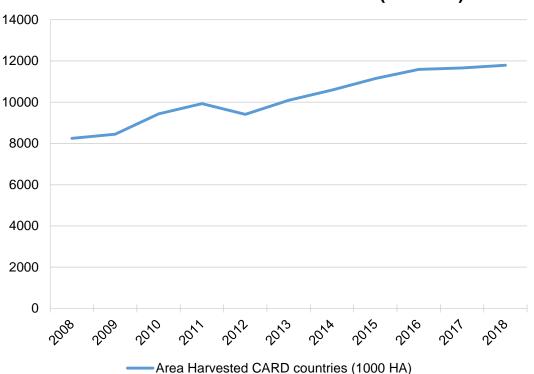
#### Introduction

- ➢ Global food crises and insecurity in 2007-2008
- Symptoms in sub Saharan Africa: soaring food prices & riots in 2008
- Increased awareness for the production of more and better food
- Importance of rice: consumed by more than 750 million people in SSA, important dietary energy source, and employment opportunities
- CARD: launched on the occasion of TICAD IV in 2008 (currently 23 SSA countries as members)
- ➢ Goal: Double rice production in SSA in 10 years (2008-2018)
- Presentation shows trends in rice production and consumption over the last decade, progress in meeting CARD objectives & proposes the way forward



#### **Rice area**

- Continuous increase in rice area observed over the last decade
- Rice area increase by 43%: from 8.2 million ha in 2008 to 11.8 million ha in 2018

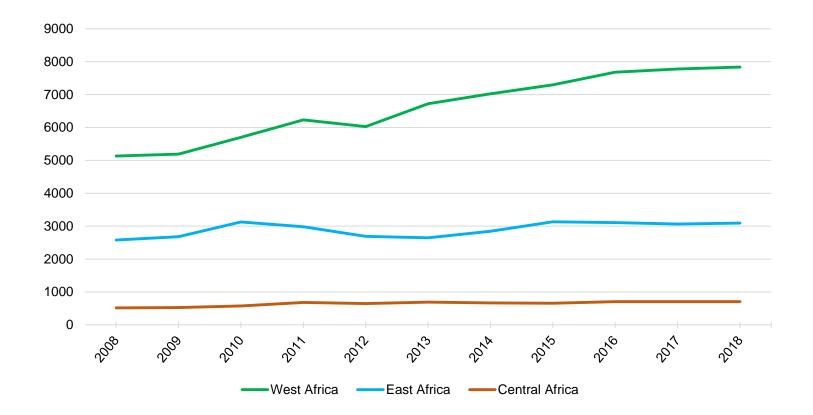


#### Harvested area in CARD countries (1000 HA)



#### **Rice area per region**

Rice area harvested per region x 1000 ha

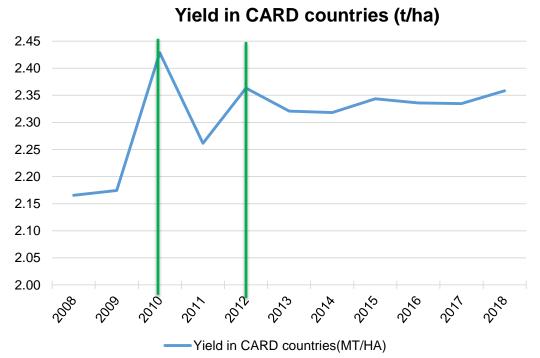


West Africa shows has the highest growth rate in rice area at **53%**, followed by Central Africa at **37%** & East Africa at **20%** 



## **Rice yield**

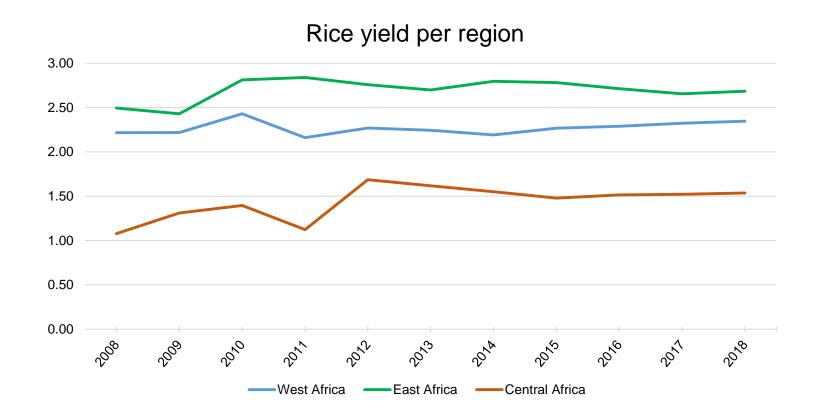
- Rice yield increased from 2.17
  t/ha to 2.36 t/ha
- 3 phases in yield trend :
- 1. 2008-2010 (after food crisis ): yield increased by 12% (Saito *et al.*, 2014)
- 2. 2010-2012: yield decreased
- 3. 2012-2018: yield is almost constant around **2.35 t/ha**



 Decrease in yield observed after 2010 (after the food crisis) could be attributed to policy measures (government support) that did not sustain yield growth over time

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## **Rice yield per region**

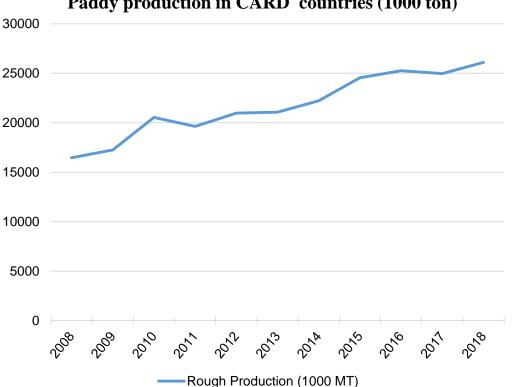


East Africa show the highest yield rate, followed by West Africa and then by Central Africa



## Paddy production

- Production target achieved at 93%: estimated at 26.1 million in 2018 against target of 28.0 million tons (source **USDA 2018**)
- Production increased by 58%: from 16.5 million tons in 2008 to 26.1 million tons in 2018



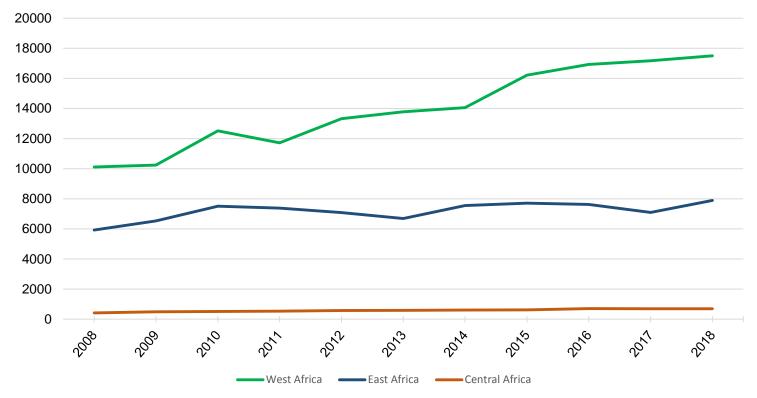
Paddy production in CARD countries (1000 ton)

Increase in production mainly due to rice area expansion



## Paddy production per region

Paddy production in CARD regions

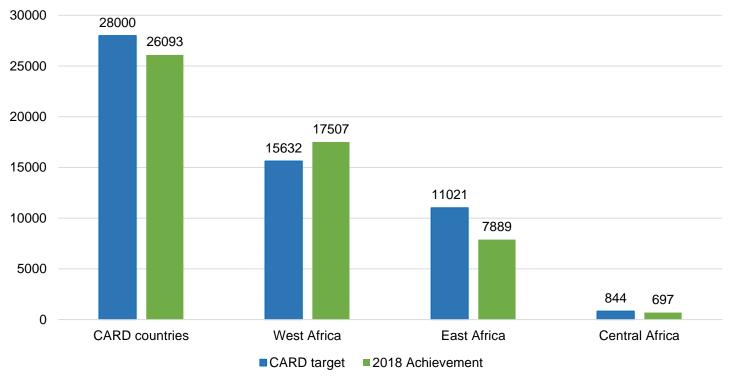


- West Africa shows fastest growth at 73% compared to 65% and 33% for Central Africa and East Africa, respectively
- Similar trend observed in rice area expansion

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#### Meeting CARD objective per region

#### Paddy production per region vs CARD target



On the basis of each region's base-line production level in 2007 and applying the objective of CARD to double rice production in regions

- Only the West Africa region achieved the CARD objective of doubling and surpassing its production target
- Performance of Central and East African countries affected achievement of CARD target of 28 million tons

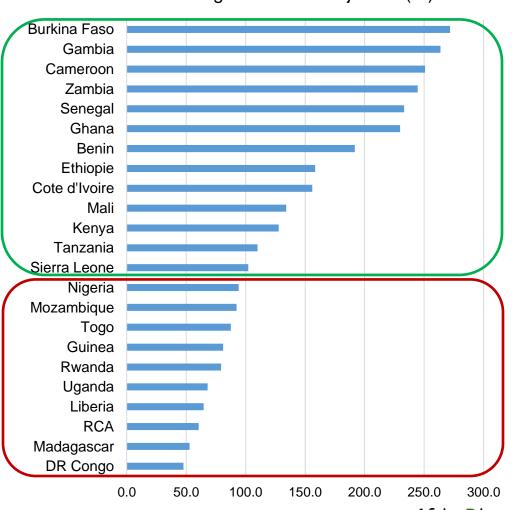


#### Meeting CARD objective per country

% achievement	Number of countries
Less than 50%	1
50% to 75%	4
75% - 99%	5
100% and more	13

From 2008 to 2018, **57% of countries** achieved the CARD objective

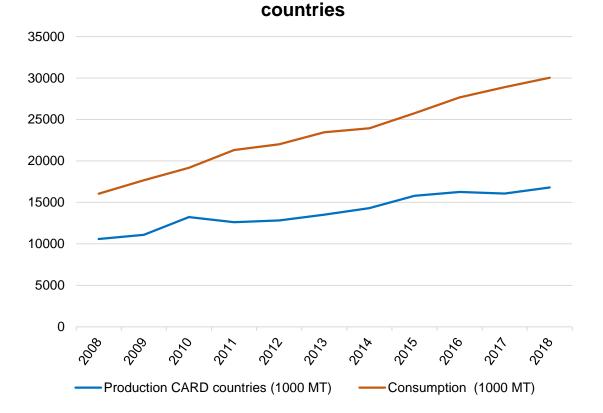
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Achievment against CARD objective (%)

#### Milled rice production vs consumption

- Consumption increased faster than production
- Consumption increased by 87% while production increased by 58%

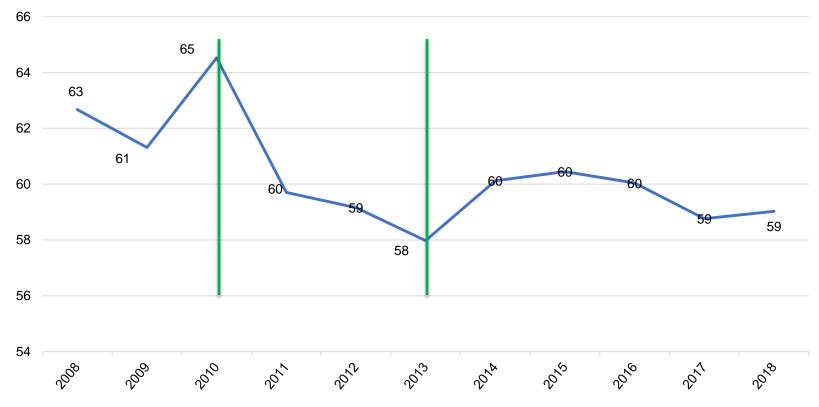


Milled rice production and consumption in CARD



#### **Rice self-sufficiency**

**Rice self-sufficiency ratio of CARD countries** 

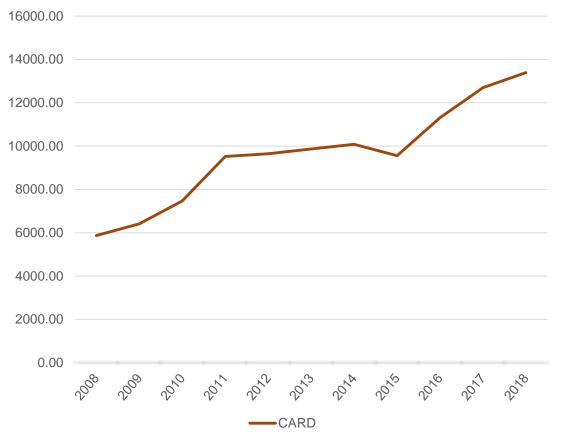


Rice self-sufficiency decreased from 63% to 59% in CARD countries



#### **Rice imports in CARD countries**

- Rice importation increased by 44% : from 5.9 million tons to 13.4 million tons
- Estimated bill for rice imports: USD 5.4 billion in 2018



#### **Rice importation in CARD countries**

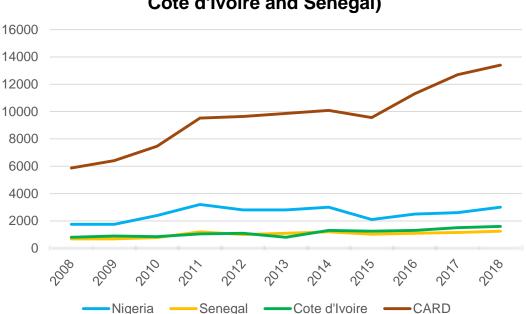


## **Rice imports in CARD countries**

- Nigeria increased rice imports by 71%
- Its import share decreased from 30% in 2008 to 22% in 2018 of total rice imports
- Senegal increased rice imports by 83%.
- Its import share decreased from 12% in 2008 to only 9% in 2018 of total rice imports
- Cote d'Ivoire increased importation by 100%.

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 Its import share decreased from 14% to only 12% of total rice imports

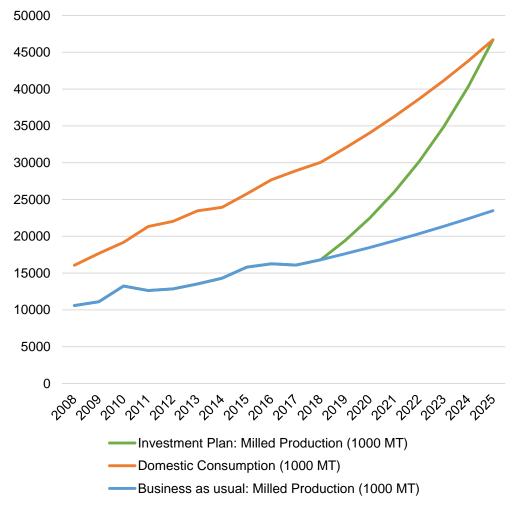


#### Rice importation – biggest importers (Nigeria, Cote d'Ivoire and Senegal)

## **Projection toward 2025**

- Based on the annual average growth rate over the last decade of 4.9%, milled rice production is projected at 23.48 million tons in 2025
- Based on the annual growth rate over the last decade of 6.5 %, consumption is projected at 46.69 million tons
- To realize rice self-sufficiency up to 2025 in CARD countries, production must increase by an annual growth rate of 15.73%

Scenarii of rice production and consumption in CARD countries (2008 to 2025)





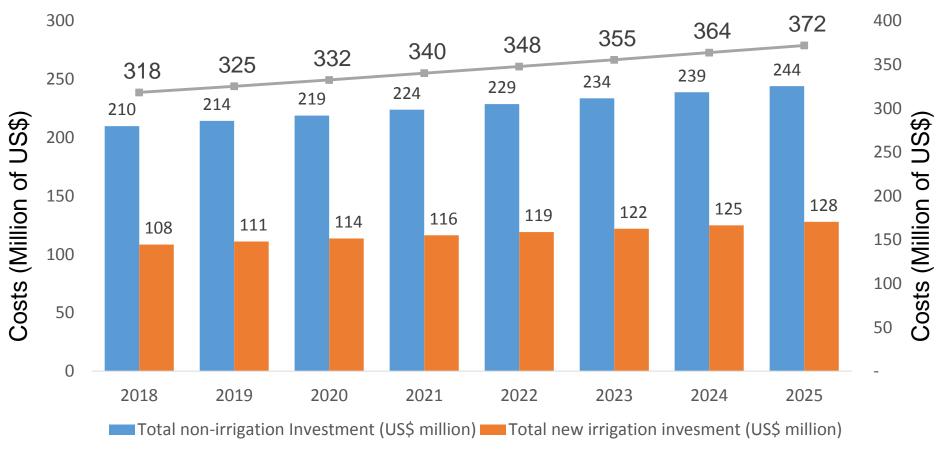
#### **Looking forward**

**Rice sector development objectives in SSA** 

- Major objectives going forward:
  - ✓ Increase rice **production**
  - ✓ Accelerate self-sufficiency in rice
  - ✓ Increase investments
- Modeling investment requirements: Continental Investment Plan for accelerating Rice Self-Sufficiency in Africa (CIPRiSSA)
- Pilot test in 10 countries in SSA (Senegal, Sierra Leone, Côte d'Ivoire, Ghana, Mali, Nigeria, Cameroon, Uganda, Tanzania, Madagascar)



# Annual additional investments for 10 pilot countries (US\$ million)



----Total investment (US\$million)

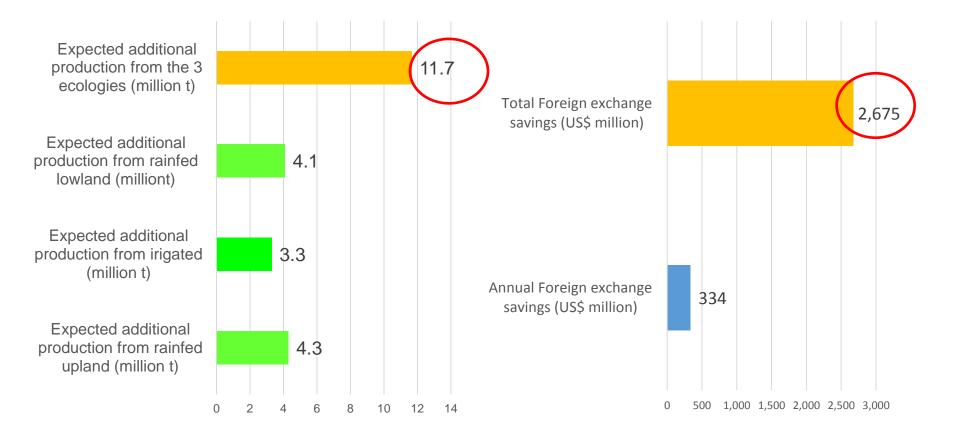
#### Total investment needed over 8 years: USD 2754 million



## **Expected gains from additional investments**

#### **Additional milled rice**

#### **Foreign exchange savings**





## Looking forward Additional policy measures

- Reduce rice importation: need to continue and be sustained especially in major rice consumption countries (e.g. Nigeria, Senegal, Cote d'Ivoire)
- Develop and use improved technologies (including quality seeds, fertilizer, small scale mechanization, value addition)
- Organize efficient rice value chains (development and introduction of best-fit contract farming linking especially producers, industries, markets, banks, insurance, use of *IT*)



#### Conclusion

- 1. From 2008 to 2018, **57% of countries (13 out of 23)** achieved the CARD objective
- 93% of CARD target achieved (paddy production in 2018 is estimated at 26.1 million tons against the CARD target of 28 million tons)
- 3. Production increased by 58% (from **16.5** to **26.1 million tons**) due to **increase in area (by 43%)**
- 4. Trends in yield showed that policy measures after 2008 were not sustained
- 5. To realize rice self-sufficiency up to 2025, domestic production must increase at 15.73% per annum and this requires increased investments and strong policy measures



## Thank you

