



# Competitive African Rice Initiative (CARI)

Empowering small-scale rice farmers  
in Sub-Saharan Africa



# Introduction

Rice is one of the most important staple foods in Africa. In recent years, demand for rice has been growing faster than anywhere else in the world and far outstripping the sub-region's population growth. This trend is predicted to continue for the next years due to population increase, urbanization and changes in consumption patterns.

In West Africa, local production covers only 60% of current demand and yield growth does not match population growth; in some cases the supply gap even increases. Average yields in Sub-Saharan Africa are the lowest in the world. There is insufficient knowledge of modern farming techniques, limited access to high-quality seeds, poor soil fertility and inadequate crop protection practices. In addition, 90% of all locally cultivated rice is produced on small fields with an acreage of less than one hectare. The competitiveness of this locally produced rice is often low due to poor production, processing and marketing infrastructure and weak market organization; necessary infrastructure for efficient storage, transport and processing is also often inappropriate. Given that production costs are relatively high and prices for the lesser quality products are low, smallholder farmers have been left with low-income margins while consumer preferences are biased towards imported rice varieties. As a result, most of the rural population in rice producing areas remain poor or live below the poverty line, while Africa imports more rice than any other region globally.

African governments have realized the importance of the rice subsector to safeguard food security, to save foreign currency and to foster rural economic growth and value addition within the country. Several governments are promoting import substitution policies for rice and have earmarked rice for rapid expansion and modernization in their national strategies for food security, self-sufficiency and rural development. The program *Competitive African Rice Initiative* (CARI)

was commissioned to significantly improve the livelihoods of smallholder rice farmers by increasing the competitiveness of domestic rice supply and to meet increasing regional demand. CARI's technical and financial assistance is based on a value chain approach. The principal aim is to improve coordination, to create better linkages among rice value chain actors, and as a result, increase the expected economic returns for all stakeholders. By doing so, the program strongly contributes to the *Sustainable Development Goals*.

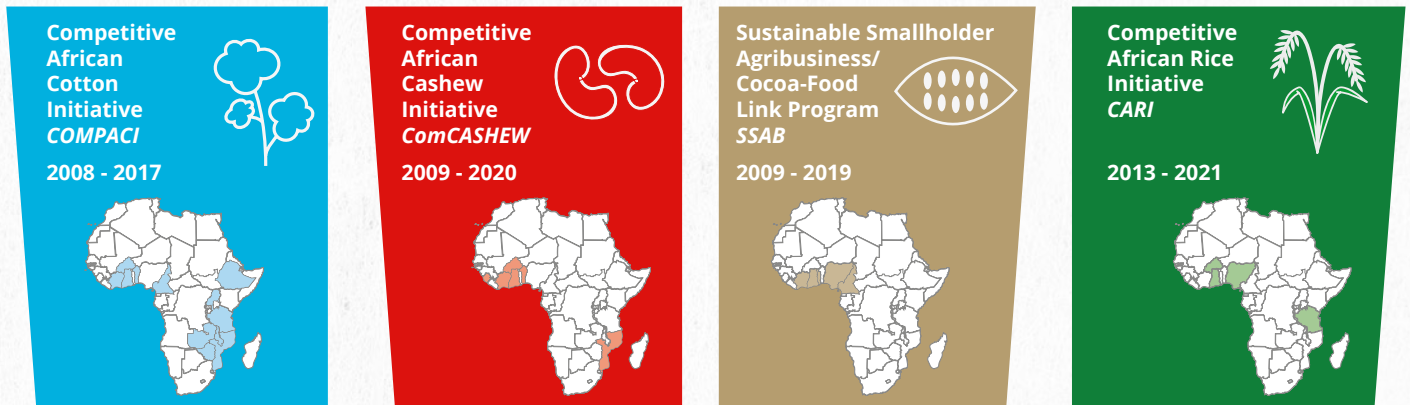


To document the results and impacts of the program and to share best practices is the purpose and intention of this booklet.

The CARI team would like to thank all of their partners and colleagues for the tremendous contributions made, the support provided and encouragement given to make the first phase of CARI successful. We are looking forward to maintain linkages and to create new partnerships with the objective to be able to share and scale the positive experience.



## Overview Value Chain Programs



## Success Factors



### Scalability

Regional outreach and adaptability resulting in „economies of scale“



### Learning

Institutionalized exchange among the projects plus adoption of best practices between projects and countries



### Governance

Board structure involving African and International private and public partners = institutionalization of the idea of public private partnerships (PPP)



### Impact

Joint M&E to report aggregated achievements

## Impacts at a glance



## Proven Approaches for Upscaling

### Farmer Business School (FBS)

Agripreneurship for farmers

### Matching Fund

An integrated development partnership model



### Master Training Program

Creating a pool of experts for sector development

### Good Agricultural Practices (GAP)

Demand orientation



# Competitive African Rice Initiative

## Commissioned by



Federal Ministry  
for Economic Cooperation  
and Development

## Co-funded by

**BILL & MELINDA**  
**GATES** foundation

**Walmart** Foundation

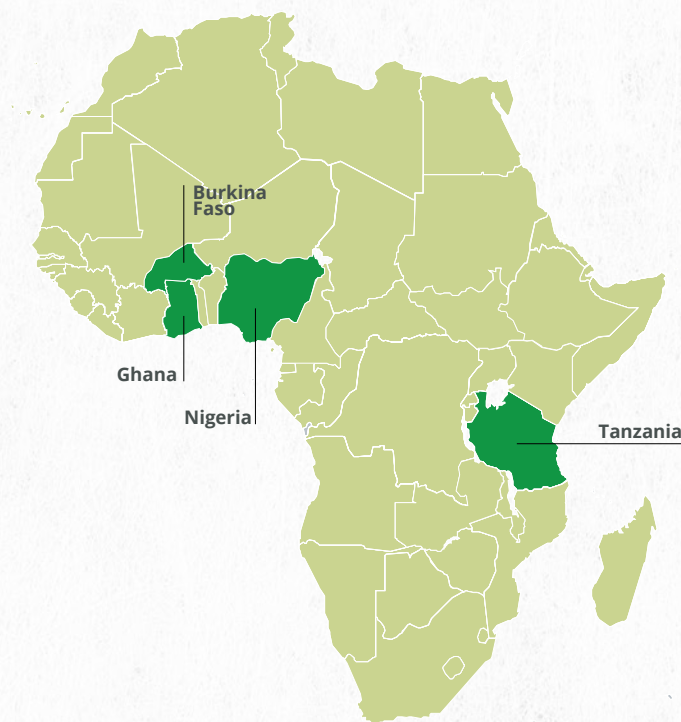
## Project Duration

November 2013 – June 2018

## Project Budget:

€ 21.04 Million

## Project Countries



# Objectives



### Improved Productivity

Improved productivity and quality of paddy rice based on sustainable and competitive rice production systems



### Improved Access to Financial Services

Improved access to financial services for all value chain actors



### Established Value Chain Linkages

Increased efficiency of local rice sourcing, processing and marketing through structured value chain linkages, improved technology and process management



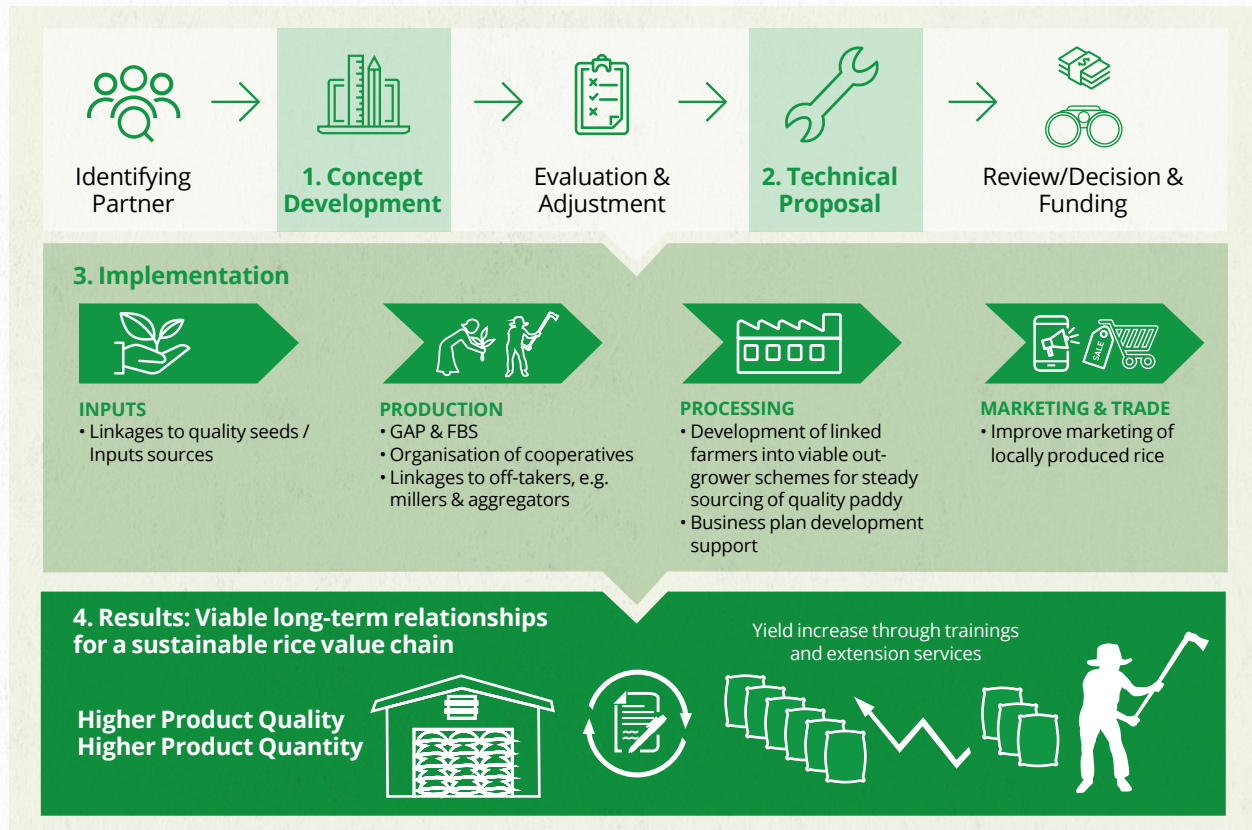
### Improved Policy Framework for the Rice Sector

Improved enabling environment at national and regional level including policy framework and strengthening of rice sector initiatives

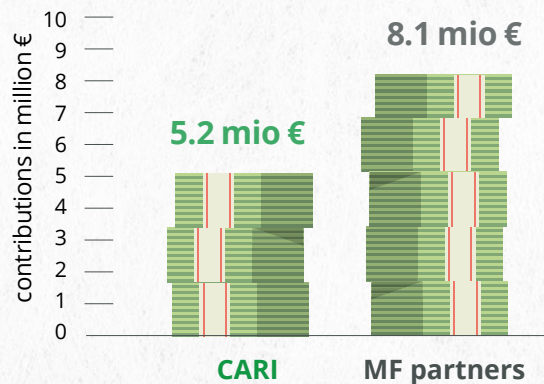


# Matching Fund

## Matching Fund Mechanism



## Investments into the Rice Value Chain



*"The Matching Fund Mechanism is the best way of implementing projects between donors and grantees. The grantees invest money, which at the end of the day they would like to see it unlocks profits. With an assistance of matching funds from the donor, business between off-takers and smallholder producers grows quickly."*

**MF Partner**

Number of  
Matching  
Fund Projects

**36**



# Achievements



## 750,348

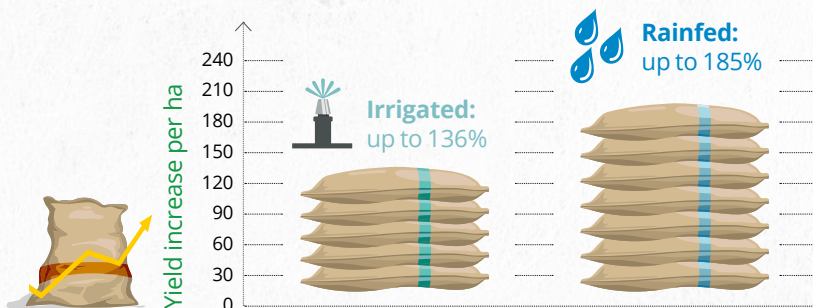
Beneficiaries have increased their income and improved their food security (including indirect beneficiaries)

## 178,663

Smallholder farmers have received trainings in good agricultural practices (GAP)

$\begin{array}{r} 5693 \\ + 4357 \\ \hline 10050 \end{array}$	$\begin{array}{r} 4916 \\ + 5207 \\ \hline \end{array}$	$\begin{array}{r} 421 \\ - 208 \\ \hline \end{array}$	$\begin{array}{r} 943 \\ - 601 \\ \hline \end{array}$
$\begin{array}{r} 73543 \\ + 15890 \\ \hline \end{array}$	$\begin{array}{r} 5721 \\ + 4608 \\ \hline \end{array}$	$\begin{array}{r} 547 \\ + 640 \\ \hline \end{array}$	$\begin{array}{r} 538 \\ - 328 \\ \hline \end{array}$

### Yield increase overall

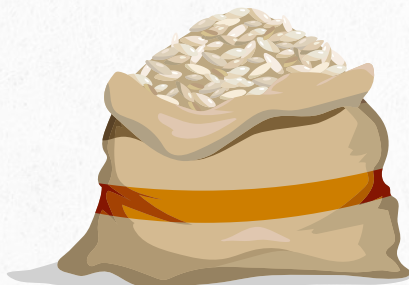


## 137,281

Smallholder farmers have received trainings in Farmer Business School (FBS)

## 484,000 Mt/ha

Total additional paddy traded through structured markets



70%  
Wet Season



30%  
Dry Season



# 23,282

full-time job equivalents created



## 6,876

full-time job equivalents  
in irrigated production systems



## 16,406

full-time job equivalents  
in rainfed production systems

# 143,903

Farmers  
engaged in 4 countries



## Good Agricultural Practices

GAP adoption studies and farmer reports have shown that major improvements can be observed in the following practices:



### Land preparation

Farmers prepare their plots before starting rice cultivation, as it holds the benefits of controlling weeds, recycling plant nutrients, and transplanting seedlings in soft soils

1

2

### Improved Inputs

Farmers use improved and more adequate quantities of inputs



### Transplanting

Farmers use transplanting instead of broadcasting including planting in rows

3

4

### Water management

Introduction to dry season farming: Farmers can farm 2 seasons per year (especially in Nigeria)



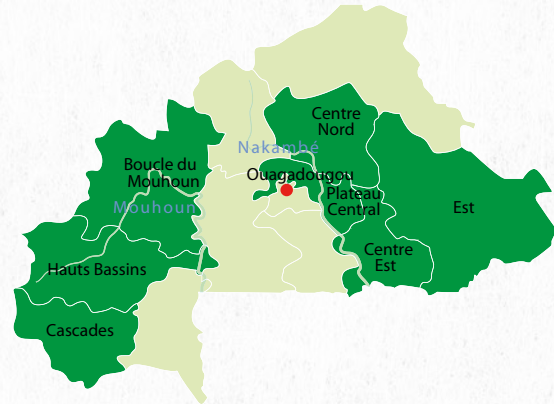


# Burkina Faso



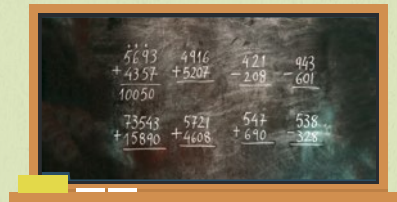
**55,851**

Beneficiaries have increased their income and improved their food security (including indirect beneficiaries)



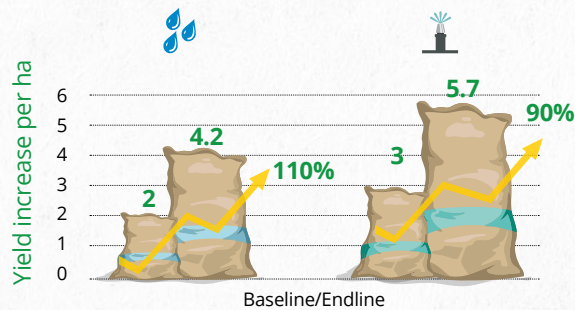
Smallholder farmers have received trainings in good agricultural practices (GAP)

**13,298**



**3,476**

Smallholder farmers have received trainings in Farmer Business School (FBS)



**4,900**

Farmers engaged in value chain through contracts with off-takers



**1,560**

Full-time job equivalents created

Number of MF Projects

**4**

Names of MF Partners:

Faso Malo | RWB | UNERIZ | Wend Konta





# Ghana



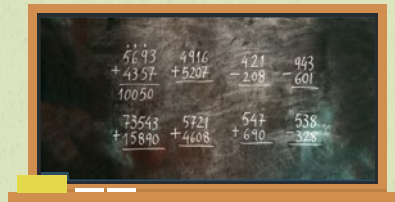
## 110,650

Beneficiaries have increased their income and improved their food security (including indirect beneficiaries)



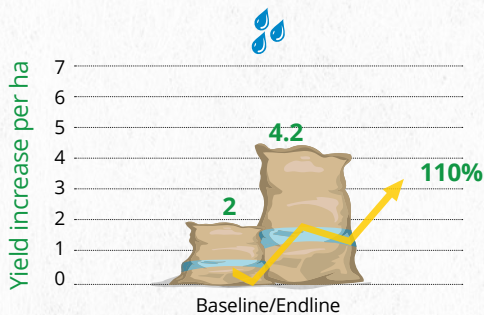
Smallholder farmers have received trainings in good agricultural practices (GAP)

## 26,346



## 27,552

Smallholder farmers have received trainings in Farmer Business School (FBS)



## 18,894

Farmers engaged in value chain through contracts with off-takers



## 3,641

Full-time job equivalents created

## Number of MF Projects 10

### Names of MF Partners:

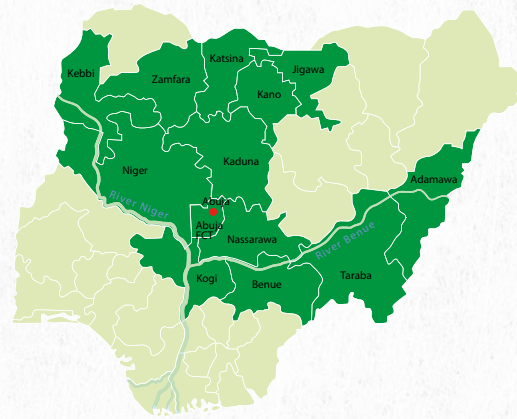
Christian Aid | CRAN | Farmer Lane | Fysso | Okata Farms and Food Processing | SATCO | Savban | Tamanaa | Wienio | Worawora

# Nigeria



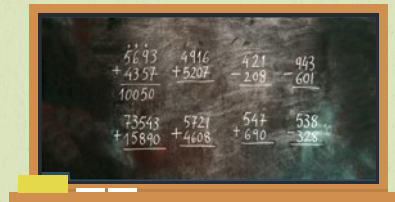
## 417,140

Beneficiaries have increased their income and improved their food security (including indirect beneficiaries)



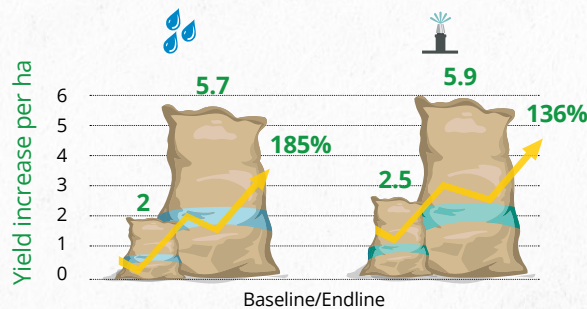
Smallholder farmers have received trainings in good agricultural practices (GAP)

## 99,320



## 74,100

Smallholder farmers have received trainings in Farmer Business School (FBS)



## 90,000

Farmers engaged in value chain through contracts with off-takers



## 15,194

Full-time job equivalents created

## Number of MF Projects 14

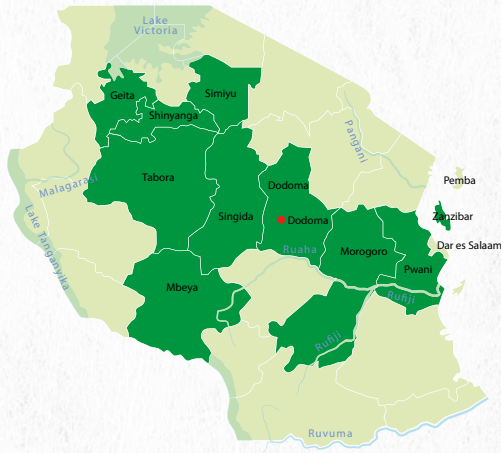
### Names of MF Partners:

Ajifa | Atafi | Babban Gona | Danmodi | eHealth | GSARDI | Labana | KARDa | Klysat | Masco | OLAM | Onyx | NSRIC | NAMDA | PFML | WACOT | WOFAN





# Tanzania



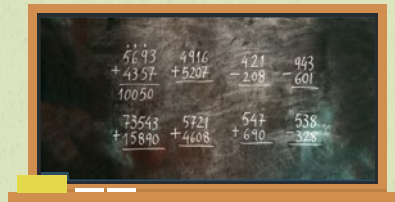
## 166,735

Beneficiaries have increased their income and improved their food security (including indirect beneficiaries)



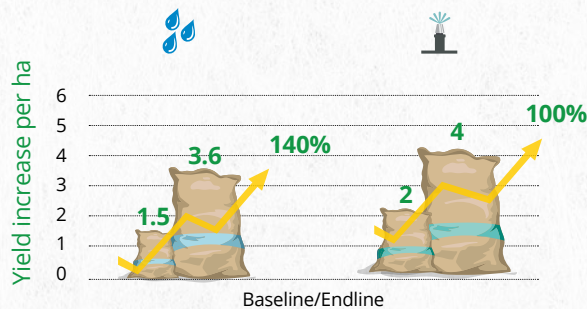
Smallholder farmers have received trainings in good agricultural practices (GAP)

## 39,700



## 32,138

Smallholder farmers have received trainings in Farmer Business School (FBS)



## 30,043

Farmers engaged in value chain through contracts with off-takers



## 2,887

Full-time job equivalents created

## Number of MF Projects

# 8

## Names of MF Partners:

Biosustain | G2L | Kilombero Plantation | Kimolo Super Rice | Mamboleo Farm | Musoma Food Company | Raphael Group | ZANRICE

## Access to Finance

**16 mio US \$**  
Pre-financed inputs

**93,300** Famers have  
access to pre-financed inputs



**12 mio US \$**  
Capital investment



### Findings of stocktaking missions in Nigeria, Burkina Faso and Ghana

- The complex nature of agricultural finance: bringing two sectors together – the world of banking and the world of agriculture.
- Bankers and farmers speak different languages: this creates misunderstanding and preconceptions maintain.
- Understanding the needs of bankers and farmers and create a real partnership.
- High interest rates and over-collateralization are facts: Risk-mitigation and confidence-building measures can lead to a gradual improvement.
- Capacity building: make farmers bankable and bankers agriable.
- Agricultural finance, micro finance and value chain finance: A cross-mix of financial service providers as partners for CARL is key.



- Collaboration with banks: Identify financial service providers who have an appetite to engage with the agricultural sector.
- Develop tailor-made products to finance agricultural activities.
- Blended finance in the rice sector: How to combine public and private funds in an efficient and sustainable way.
- Develop suitable business and financing models to foster agricultural mechanization.
- Transparency of government programs and agri-funds: Support rice farmers and processors to get access.





## Established dialogue platforms for policy advocacy

Different actors of the rice value chain meet, discuss and agree on advocacy strategies and actions and carry out advocacy activities.

### State level



#### Registered bodies

Members are:

- representatives of associations of farmers
- associations of input dealers
- associations of service providers
- associations of millers and others.



### National level



#### Nigeria

*Rice Policy Advocacy Platform of Nigeria*

**17** platforms from  
**6 geopolitical zones**



**>12,000,000**  
members

#### Tanzania

*Rice Council of Tanzania (RCT)*

**4** area  
platforms



#### Burkina Faso

*Comite Interprofessionnel du Riz du Burkina (CIRB)*

#### Ghana

*Ghana Rice Interprofessional Body (GRIB)*

### Regional level



#### Africa Rice Advocacy Platform (ARAP)



11 countries are represented

Benin  
Burkina Faso  
Côte d'Ivoire  
Ghana,  
Mali  
Niger  
Nigeria  
South Sudan  
Tanzania  
Togo  
Uganda

# 17 Policy briefs developed and published



## Policy Priorities

Thematic issues highlighted in position papers on policy rice priorities and recommendations reflected in policy strategies.



### Nigeria – 2016-2020 National Agriculture Policy Road Map

- ◇ Finance
- ◇ Extension Services
- ◇ Climate Change
- ◇ Post-harvest losses
- ◇ Pesticides

#### Additional Support:

- Advocacy for the Anchor Borrower Program



### Burkina Faso – National Rice Development Strategy

- ◇ Access to Finance
- ◇ Mechanization
- ◇ Rice Quality and Markets

#### Additional Support:

- Advocacy for the procurement of local rice in government institutions
- Support for the Review of the National Rice Development Strategy



### Ghana – National Rice Development Strategy

- ◇ Finance
- ◇ Standards
- ◇ ICT
- ◇ Mechanization
- ◇ Pesticides

#### Additional Support:

- Advocacy for the development of Paddy Grain Standards and Milled Rice Standards
- Support for the Review of the National Rice Development Strategy



### Tanzania – Policy Support

- ◇ Non-tariff barriers
- ◇ Export ban
- ◇ Pesticides

#### Additional Support:

- Advocacy for lifting of ban of Tanzania Rice to Rwanda
- Advocacy for ban on importation of Rice





## Gender

Women trained  
in nutrition

42,000



Women trained  
in improved  
parboiling techniques

30,000

Share of women in GAP  
and FBS trainings

30%



Countries where  
projects were  
implemented



*"Now, I am a businesswoman.  
I used to make 250 Naira per  
week, parboiling for other millers.  
But now, I make an average of  
1,500 Naira per week from  
my own parboiling business."*

**Female Farmer**, Nigeria

Names of MF Partners:  
Christian Aid | CRAN |  
eHealth | WOFAN

Number of  
MF projects  
in collaboration  
with Walmart  
Foundation

41



## Mobile APP

### RiceAdvice

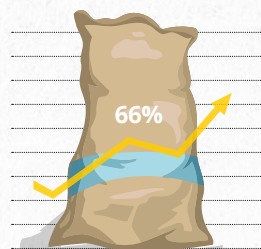
Advice on field-specific rice management practices: recommendations on fertiliser management, general good agricultural practices and provision of a specific cropping calendar



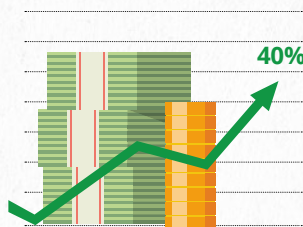
>20,000  
Farmers reached



Yield increase (in %)



Income increase (in %)



Service Providers trained

92



more than  
60% youth

### RiceAdvice-WeedManager

Support to African rice farmers to find the most effective and cost-efficient weed management strategies, considering specific farming conditions and available resources



Pilot Project

>75

Service Providers trained



more than  
80% youth



Voice Messaging

**FARMERLINE** (implemented only in Ghana)

98,958  
Messages sent



Covering GAP, FBS, weather forecast, nutrition and post-harvest tips

Languages offered

11

686

Farmers reached





# Matching Fund Partners

All the impact achieved by CARI would not have been possible without our lead matching fund partners, and the consortia partners in various contexts. It is therefore our pleasure to express our sincere

gratitude to all people that have dedicated time and resources to the achievements and the results over the past four years.

## Burkina Faso

- Rizerie Faso Malo
- Union Nationale des Etuveuses de Riz du Burkina (UNERIZ)
- Rizerie WendYam de Bobo (RWB)
- Wend Konta

## Ghana

- Christian Aid
- Christian Rural Aid Network (CRAN)
- Farmer Lane
- Fysso
- Okata Farms and Food Processing
- Savannah Agricultural & Trading Ltd (SATCO)
- SAVBAN Processing and Marketing Company Ltd
- Tamanaa
- Wienco
- Worawora

## Nigeria

- Ajifa
- Atafi
- Babban Gona
- Danmodi Rice Mill
- eHealth
- Green Sahel Agricultural and Rural Development Initiative (GSARDI)
- Kebbi Agricultural and Rural Development Authority (KARDA)
- Klysat Food and Beverages Ltd.
- Labana Rice Mills Ltd
- Masco Agro Allied Industries
- OLAM
- Onyx Rice Mill
- Niger State Rice Investment Consortium (NSRIC)
- Niger State Agricultural Mechanization Development Authority (NAMDA)
- Popular Farms and Mills Ltd (PFML)
- WACOT Rice Limited
- Women Farmers Advancement Network (WOFAN)

## Tanzania

- Biosustain
- G2L Company Ltd
- Kilombero Plantation
- Kimolo Super Rice
- Mamboleo Farm
- Musoma Food Company
- Raphael Group Ltd
- Zanzibar Ministry of Agriculture and Natural Resources

# Outlook

Over the past 3 years, CARI, together with its partners, was able to significantly improve the livelihoods of smallholder rice farmers in four countries of Sub-Saharan Africa by applying a value chain approach. Based on the excellent findings of the project evaluation in February 2017, CARI has been commissioned for another three years, starting in July 2018. For the second phase of the program, the lead executing agency in West Africa is the Economic Community of

West African States (ECOWAS), in particular its Department of Agriculture as political partner. In East Africa, the program will remain in the hands of the Tanzanian Ministry of Agriculture.

The following four objectives have been agreed upon with our commissioner which determines the emphasis of our work:



## Knowledge management and cooperation

### Objective:

The exchange of experiences related to productivity, business models, use of production inputs, financial services and policy-making to foster the rice value chain has increased.

- Develop and expand Multi Actor Partnerships (MAP) and provide support for further indirect implementation of MF
- Organise semi-annual learning events and involve all stakeholders (regional partners, national forums)
- Use virtual exchange platforms more to exchange information
- Ongoing adaptation of the M&E systems and ensure the vision of success.



## Inclusive business models and productivity

### Objective:

The viability of the business relationships has been sustainably improved

- Foster inclusive business models as part of out-grower schemes and contract farming
- Encourage symmetrical power relationships in the business models (business support for producer associations)
- Advise participating companies following a business and technical assessment
- Improve quality of rice processing (at smallholders and in rice mills)
- Develop marketing strategies
- Hold nutrition training sessions
- Promote ICT applications.



## Financial services

### Objective:

Access to financing opportunities has improved for main stakeholders in the rice value chain.

- Advise financial institutions on how to access the agricultural sector and on adaptation of products
- Strengthen the integrability of the stakeholders in the rice value chain (credit worthiness) and involve them in government financing programmes
- Develop innovative financing options for agriculture-based services in rural areas
- Identify the need for financing as part of the business models and fund advisory services for business development.



## Policy advice

### Objective:

Private sector interests are reflected in all project countries' national rice policies.

- Advise national and regional rice platforms / forums on organisation
- Support regional policy-making with respect to standards and trade
- Shape regional dialogue between platforms and stakeholders in the public and private sector.



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**AGRICULTURAL  
VALUE CHAINS**  
for sustainable development



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