

Accelerating Impacts of CGIAR Climate Research for Africa

Launching the Fertilizer and Soil Health Hub for West Africa and the Sahel

# Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA)

Wednesday 26 June | Robert Zougmoré



AICCRA works with national and regional partners across Africa to provide access to-and enable the use of-enhanced climate information services and validated technologies and practices for climate-smart agriculture for millions of smallholder farmers across the continent. Through innovative partnerships, CGIAR-led innovations are being delivered on the scale that meets the climate crisis.



## Key impact in numbers

- 7,096,921 beneficiaries reached with increased access to enhanced climate information services (CIS) and/or validated climatesmart agriculture (CSA) technologies.
- 160 partners increasingly accessing enhanced CIS and/or CSA technologies.
- 26,429 people engaged in AICCRA funded capacity development activities.
- 6 focus countries and 38 'spillover' countries in Sub-Saharan Africa access enhanced CIS and validated CSA technologies.

#### Senegal | Reached 611,212

- Advisories through SMS and voice messages by Jokalanté SME
- Intelligent Systems Advisory Tool (iSAT)
- Gender-smart, climate-smart SME
  accelerator

### Mali | Reached 511,263

- RiceAdvice app boosting yields, incomes and climate resilience
- Smart Valleys approach

### Ghana | Reached 649,420

- Early warning and rapid response system against climate-driven pests and diseases
- Farmer field days, technology parks and radio shows with Esoko telecoms

#### Kenya | Reached 2,448,500

- Enhanced collaboration between meteorological and agricultural agencies disseminating agroadvisories
- KAZNET crowdsourcing app provides CIS to pastoralists

#### Ethiopia | Reached 450,181 Innovations:

- SmaRT Packs for small ruminants
- Lersha app for central wheatbelt provides advisories and services

#### Zambia | Reached 2,434,483

- Climate-smart agribusiness SME Accelerator Program
- Munda Makeover TV 'farmer makeover' show for CIS and CSA

### **Focus countries**

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# How AICCRA works





Climate Research for Africa

# How AICCRA works

### COUNTRIES

AICCRA has teams in six countries: **Senegal, Ghana, Mali, Ethiopia, Kenya** and **Zambia.** 



It also has two regional teams focusing on **West Africa** and **East & Southern Africa**.

## THEMES

Theme 1 Priorities and Policies for Climate Smart Agriculture

# Theme 2

Climate Smart Technologies and Practices

Theme 3 Gender and Social Inclusion

> Theme 4 Climate Services

**COMPONENTS** 

Component 1 Knowledge generation and sharing

Component 2 Partnerships for delivery

Component 3 Validating and scaling climate-smart agriculture innovations

# **SCALING & LEARNING**

# **AICCRA is supported by**

Agreements

Performance

Project



# **AICCRA** is led by



CILS. ASAREC **AfricaRice** AGRHYMET COLUMBIA CLIMATE SCHOOL INTERNATIONAL RESEARCH INSTITUTE World FOR CLIMATE AND SOCIETY **CIFOR** Agroforestry CORAF **ICARDA** CIMMYT Science for resilient livelihoods in dry areas International Maize and Wseat INTERNATIONAL CROPS RESEARCH INSTITUTE FOR THE SEMI-ARID TROPICS **IFPRI** R FORUM INTERNATIONAL LIVESTOCK RESEARCH Transforming African Agriculture specity Balleing in Agriculture INSTITUTE (WAA) IRRI International Water WorldFish

Management Institute

# 160 partners

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# Why we need a Fertilizer and Soil Health Hub





# The challenge

- In Africa, two-thirds of the land available for agricultural production is considered degraded, resulting is low crop and livestock productivity, poverty, and degradation of natural resources.
- Average fertilizer application rate is 22 kilograms per hectare, compared to a world average seven-times higher (146 kilograms per hectare).
- Skyrocketing and highly volatile fertilizer prices limit application.
- Fertilizers applied are not always suitable to the soil and crops needs.
- Complementary inputs and advisory services are usually missing.
- With climate change, land degradation and losses in biodiversity, soil has become one of the world's most vulnerable resources.



# The Hub's offer

Vision: For nations in West Africa and the Sahel to improve long-term soil health and fertility for enhanced yield and profitability, efficient resource use (nutrients, water, labour, seeds), and climate resilience, thus contributing to the sustainable transformation of African smallholder agriculture for food security, poverty reduction, and environmental sustainability.

Mission: To facilitate the **delivery of agronomic gain**, conceptualized around yield and profitability, resource use efficiency (nutrients, water, labor, seeds), climate adaptation, and soil health, at the regional, national, and sub-national level through the **assembly, delivery, and monitoring of fertilizer and soil health management practices** and related **capacity development** of key stakeholders, underpinned by **institutionalization principles**.



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# AICCRA's contribution to the Hub





Climate Research for Africa

SOIL INFORMATION		CAPACITY DEVELOPMENT	
(1) Digital soil health and fertility maps	Ghana, Ethiopia, East & Southern Africa, Theme 1	(13) Farmer-led experimentation	Ghana, Senegal, Themes 1 and 3
		(14) Capacities of national	Mali, Theme 1
(2) Plant and soil analytical laboratory services		institutions	
(3) A soil health and fertility dashboard		(15) Certification scheme for extension staff	
(4) Advice on carbon sequestration potential	Ethiopia, East & Southern Africa		
		POLICY SUPPORT	
KNOWLEDGE MANAGEMENT AND SHARING		(16) Policy development, support	
(5) A repository of knowledge products	Ghana, Theme 1	decision-making	
(6) Workflows to update and access the repository	Ghana, Theme 1	(17) Integration of gender and youth	
AGRONOMY RECOMMENDATIONS		ADVOCACY AND AWARENESS CREATION	
(7) Site-specific nutrient recommendation models	Ghana, Mali, Ethiopia, East & Southern Africa	(18) Advocate for soil health and fertility	Zambia, Theme 1
		RESOURCE MOBILIZATION	
(8) Unified databases and digital tools to collect and manage FAIR and standardized data		(19) Mobilize financial resources	
(9) Monitoring of the delivery of agronomic gain	Mali, Ethiopia, East & Southern Africa	(20) Facilitate access to sustainability schemes	
(10) Prioritize scientific studies			
(11) Deployment of bio-fertilizer, specialty fertilizers	Mali,		
(12) Bundle services, including climate adaptation advisory services			

# Mali

- Location specific fertilizer recommendations provided to 60,000 farmers on a total area of 30,000 ha using RiceAdvice.
- Capacity building to national extension agents and service providers in the large-scale deployment of RiceAdvice Lite.

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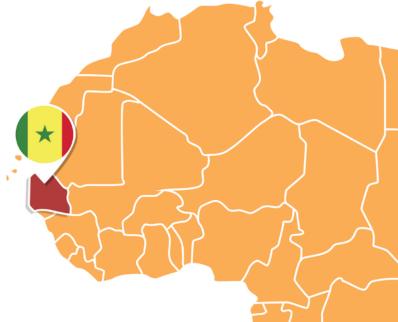
- Validation of RiceAdvice Lite in irrigated and rainfed lowlands in Mali.
- Improved soil health indicators on 1,000 ha through the scaling of RiceAdvice digital application recommendations and Smart-Valleys approach.
- To monitor the delivery of agronomy gain (yield, profitability, climate adaptation, resource use efficiency, soil health) using the sustainable rice platform in irrigated and rainfed rice-based systems.
- To assess the combined effects of biofertilizer and chemical fertilizer on agronomic gain in rainfed rice-based systems.

# Ghana

- Databases related to soil health and fertility and agronomic practices.
- Site-specific nutrient management recommendation model development: building on digital soil mapping, collect additional soil legacy datasets plus fertilizer response trials and support Ghana to develop and deploy siteand context specific fertilizer recommendation for priority crops.
- Capacity development of smallholder farmers on site-specific nutrient management.
- Capacity building of national institutions responsible for soil health and fertility R&D and dissemination.

# Senegal

- Micro-dosing techniques
- Fertilization strategies as integrated soil fertility management (ISFM) for increased grain stover yields of improved millet, sorghum, cowpea and groundnut



# **Thank you!** *Questions?*

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