

WEST AFRICA RICE AGRONOMY PLATFORM SCALING STRATEGY

Authors:

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1. INTRODUCTION

Mission

Guided by the priorities of the African leadership, we enhance the capabilities of thousands of private, public and civil society organizations to scale user-friendly, science-based rice agronomy solutions for the benefit of millions of smallholder farmers in the West Africa.

Vision

Our vision is to achieve thriving, profitable, equitable and climate-smart rice-based farming systems, lifting 1 million smallholder farmers out of poverty and contributing to 3 million farming related local jobs across West Africa by 2030.

1.1. Problem

The growing rice sector in West Africa has been consistently plagued by investment gaps in digital agriculture that affect its productivity and sustainability. One of the overlooked aspects is the limited investment channeled towards the dissemination of digital agricultural techniques (Degila et al., 2023). The lack of support for varied dissemination channels implies that many farmers remain unaware or under-equipped to tap into the advantages of digital tools (Nnadi et al., 2012). Without robust digital dissemination systems in place, it becomes increasingly difficult for small and medium-scale farmers to access critical knowledge or adapt to new technologies.

A related challenge facing digitally driven rice agriculture in West Africa is the lack of smart devices, i.e. smartphones, tablets and smartphone literacy, especially in rural areas. Smartphones and tablets are essential devices for accessing digital rice agriculture applications, platforms and services that can help to improve farmers' productivity, profitability and resilience. However, according to the Global System for Mobile Communications (GSMA), the mobile penetration rate in Sub-Saharan Africa was only 26% in 2019 (GSMA, 2019), and even lower in rural areas where most of the rice farmers live. Both private and public extension agents have limited access to smart phones and smartphone literacy, thereby hampering the scaling of digital science-based proven technologies, putting these solutions out of reach for smallholder farmers. Improving smart device literacy at scale requires many skilled extension service providers and agents working closely with farmers, which are currently insufficient for addressing the needs in the region.

Another major challenge for rice-based agricultural systems in West Africa is the large-scale availability and accessibility of high quality fertilizer (Ali et al., 2021). Africa remains overly reliant on imported inputs, including fertilizers, driving up cost for farmers (Martin, 2022) Many actors in the West African fertilizer value chain, especially smallholder farmers, desire and expect to use quality fertilizers to support their livelihoods. However, inappropriate fertilizer bulk blending practices across the region are denying farmers the opportunity to reach their yield potential (IFDC, 2023).

1.2. Demand

Significant private, public and public-private capital resources can be mobilized to improve the rice sector in West Africa. Some of the resources can be channeled to the critical dissemination efforts of digital rice solutions, once the investors are provided with the right information, coupled with right engagement.

To invest, many investors request a convincing case for high returns on their large scale investments. While private sector investors prioritize increased profits linked to high business volume, public investors focus on high social return. Private sector investors also look to decrease the relatively high cost of rice production in West Africa, whereas governments look for clear alignment with existing policies and strategies. All investors encourage the rice sector innovators to be proactive and actively reach them out for showcasing high potential solutions.

Social programs are one of the largest providers of smart devices in West Africa. A huge number of tablets have been distributed to teachers, students and providers of local and community health services in public sector programs. The policymakers are looking for ways to improve the social return on devices by innovative bundling of information and services that smart devices can provide and use these to further increase international grants and advantaged loans. Largest telecom companies, local distributors and specialized phone provide the largest share of smartphones in the region scouting and piloting instruments for increasing their markets in lagging rural areas and investing in options to diversify the use of the smartphones by rural residents.

Leaders of rice sectors in West Africa and larger international and national investors request the innovators to offer solutions for reducing the complexity of searching, downloading, installing and using digital rice apps and software. They provide technical and financial support to these innovators in an increasing number of accelerator programs. Some of the leaders and investors are experimenting with crowdsourced extension, citizen science and women accelerators to provide rice information services at scale.

The main purchasers of fertilizers in West Africa, the farmers, demand scalable long-term solutions that will both reduce the price of fertilizer and increase the quality of the fertilizers they purchase. They are looking for reducing fertilizer wastage, smaller bags, and solutions for rapid quality assessment of fertilizer.

2. SOLUTION

Rice Advice Lite (RAL) is a science-based context-specific android based digital tool providing site-specific nutrient recommendation together with good agricultural practices for production sustainability for rice value chain actors, mainly the farmers, developed and validated in Nigeria, Senegal, Mali, and Burkina Faso it provides:

- area and zone specific estimates on financial and social return of investment on rice production (high profit and return hotspot)
- context and season specific best practices and practical tips for cost reduction
- policy responsive (ADB, CORAF, GIZ) agronomy practices
- agro-health and agro-education information bundles
- Agro insurance climate smart practices bundle
- smart device (phone and tablet) rural public and private investment cases
- QR codes for smooth installation
- User-friendly intuitive interface
- Fertilizer saving tips (link RAL with fertilizer companies)
- Rapid fertilizer quality assessment checklist
- Fertilizer Bulk Provider Map

RAL scaling is powered by

- Rice investment information center (call-center, participation in investment events, investment shows, investment task forces, grant and loan application backstopping, communication package, tracking key numbers)
- Partnerships with education and health sector smart-device and data programs
- Partnerships with telecom companies on rural market expansion
- Digital rice solutions map and catalog
- Participation in accelerator programs
- Participation in country & regional programs
- Partnerships with crowdsourced extension and citizen science knowledge centers
- Partnerships with fertilizer distribution companies
- Save your fertilizer! Campaign

3. ACTION PLAN

1. Team preparation with internal training, presentations and messages for each type of stakeholder
2. Work with Joost to add the spicy elements of RAL listed in 'SOLUTION' (e.g. return to investment; aligning with policies; QR code etc.)
3. Explore, visit and list all the potential public, private, public-private organizations who has the characteristics of participating in RAL scaling You visit them first and get the pulse.
4. Organize a workshop in Nigeria by bringing all the identified stakeholders and further filter on immediate engagement partners. Invite stakeholders from other countries.. Prepare a working document detailing their level of engagement
5. Identify the leading and willing partner from ongoing projects, programs, investors, smartphone service, internet service provider, fertilizer, seed, credit and market service providers.
6. Do the engagement campaign Create awareness and promotion by participating in showcase events
7. Document all the action/processes for learning and taking next level of decisions
8. Communicate the progress with the core team through periodical meetings

3.1. KPIs

- Number of organizations scaling Rice Advice Lite (RAL)
- Number of organizations scaling user-friendly, science-based rice agronomy solutions in West Africa

3.2. Key Results

- Number of direct RAL engagements with investment organizations
- Number of direct RAL engagements with proven influencers
- Volume of Investment raised by Other Organizations using RAL
- Social return per smart device using RAL
- Number of rural residents receiving (purchasing or distribution) smart devices with RAL pre-installed
- Number of health and education interventions using RAL bundles
- Download and installation time of RAL by rice producers and service providers
- Number of accelerator programs participated
- Number of partnerships with crowdsourced extension and citizen science knowledge centers
- Volume of fertilizer distributed by distributor in collaboration with RAL team

3.3. Team

- Ali Ibrahim - ASSAP Team Member
- Senthilkumar Kalimuthu - ASSAP Team Member
- Oguntoye Kayode Seun - ASSAP Team Member
- Joost Lieshout - ASSAP Team Member
- Kazuki Saito – ASSAP Team Member
- Thompson Ogunsanmi - Scaling Support
- Mandlenkosi Nkosi - Scaling Support
- Murat Sartas – Scaling Support
- Barbra Muzata – Communications
- Anna Muller - Human Centered Design

