



# FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

## ENHANCING GROWTH THROUGH REGIONAL AGRICULTURAL INPUT SYSTEMS (EnGRAIS) PROJECT FOR WEST AFRICA

### NEWSLETTER JULY—SEPTEMBER 2021

#### TOP STORY »

*EnGRAIS has successfully assessed 43 public and private laboratories across the West African region for their capacity to support fertilizer quality testing.*

*At right: Job Fugice of IFDC (2<sup>nd</sup> from left) interacting with laboratory technicians at the Makurdi University of Agriculture Laboratory (Benue State, Nigeria).*



#### CONTENTS

Improving Regional Fertilizer Quality: EnGRAIS's Assessment of Fertilizer Testing Capacities in West Africa . . . . .	1
VIFAA Ghana Dashboard Launch . . . . .	2
Increasing Numbers of Agricultural Input Packages (AIPs) to Ensure Better Agricultural Output. . . . .	3
EnGRAIS and PAIRED Review FY21 Results and FY22 Planned Activities with Key Regional Institutions. . . . .	3
EnGRAIS and PAIRED Strengthen Capacity of Regional Trainers on FeSeRWAM and AIPs Use to Reach 600,000 Farmers in West Africa . . . . .	5
Planned key activities for the next quarter (October–December 2021) . . . . .	6

#### IMPROVING REGIONAL FERTILIZER QUALITY: ENGRAIS'S ASSESSMENT OF FERTILIZER TESTING CAPACITIES IN WEST AFRICA

Between August 2019 and September 2021, despite COVID-19 restrictions, the Feed the Future Enhancing Growth through Regional Agricultural Input Systems (EnGRAIS) project successfully assessed 43 public and private laboratories in seven countries (Burkina Faso, Cote d'Ivoire, Ghana, Mali, Niger, Nigeria, and Senegal) in the West Africa region.

Prior to the assessment exercise, very little information was available on the capacity of laboratories across the region to test fertilizers to ensure a level of quality that will help deliver agricultural production and productivity to reduce food insecurity and increase incomes.

This effort is part of the project's mandate to improve the capacity of existing laboratories for research in the fertilizer sector and promote the use of quality fertilizers by West Africa's farmers as well as encourage adherence to the ECOWAS Regional Fertilizer Quality Control Regulation within the region.

Against the background of the regular influx of poor-quality fertilizers onto the



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FROM THE AMERICAN PEOPLE

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regional market, the assessment seeks to provide a sustainable solution to some of the challenges that frustrate the efforts of smallholder farmers and key sector actors across the region. Findings and recommendations from the assessment exercise will provide the basis for reforms, equipment provision, and capacity-building activities to improve operations of laboratories across the region.

"With the report of the laboratory assessment, we will now have something from which we can build a system. I call on IFDC to assert its distinctive competence in the region on this matter. ECOWAS is ready to talk to USAID and other partners. At the regional level, we must give all our countries the capacity to analyze and control the quality of fertilizers," said Alain Sy Traoré, ECOWAS Director of Agriculture and Rural Development.

## FINDINGS AND RECOMMENDATIONS

Some key findings include the following:

- Many laboratories assessed have similar strengths and weaknesses.
- Overall, most of the laboratories assessed have qualified/professional staff such as Chemists, Chemical Engineers, PhD and Master's degree holders, and technical assistant staff. Some staff of some of the laboratories need further capacity building.
- Most of the laboratories follow the ECOWAS Fertilizer Analysis Manual or some standard methods like AOAC, ISO, or CEN.
- Many of the laboratories do not have certification for fertilizer testing, and those that have appropriate certification are designed largely for testing other things, including water and microbiology.
- Several of the public laboratories visited are supported by government/donor financing.

- The major constraint for most of the laboratories is financial support to improve their equipment and analytical capabilities for fertilizer analysis.
- Most of the laboratories have enough equipment to conduct simple N, P, K analysis but need additional equipment for more efficient work.
- Some of the constraints related to equipment in several laboratories include: age of the equipment, lack of standard operation procedures, and lack of service support.

## ENGRAIS RECOMMENDS THE FOLLOWING, AMONG OTHERS:

- Key staff in strategic laboratories be trained in procedures, methodologies, and sample preparation, and handling and maintenance of instruments to improve their fertilizer analysis capabilities.
- Some quality reference samples be provided to the laboratories to test/verify the actual analytical capacities of the laboratories in analyzing fertilizer samples.
- Staff should participate in a proficiency testing program to evaluate competent performance, identify testing or measurement problems, compare methods and procedures, improve performance, and educate staff.
- Extra space specifically for fertilizer samples will be needed in most of the laboratories visited if the demand for analysis increases significantly.
- A specific program needs to be developed with the objective to implement the action points identified from these assessments and to sustainably strengthen the required analytical capacities and expertise within the ECOWAS region.



## VIFAA GHANA DASHBOARD LAUNCH

Key fertilizer stakeholders in Ghana can now access accurate and timely data online in response to their fertilizer needs, thanks to the official launch at the end of September 2021 of a new online tool, Visualizing Insights on Fertilizers for African Agriculture (VIFAA) Dashboard ([www.vifaaghana.org](http://www.vifaaghana.org)).

A key partner of the EnGRAIS project, AfricaFertilizer.org (AFO), an initiative of IFDC, and Development Gateway (DG) developed the VIFAA Ghana Dashboard to address several challenges in the fertilizer industry in Ghana to help industry actors respond appropriately to fertilizer market dynamics. EnGRAIS works closely with and supports AFO to collect, analyze, and disseminate fertilizer prices and statistics to facilitate stakeholders' decision making.

EnGRAIS's specific activities to support AFO and enhance the Ghana Dashboard include facilitating WFAFA to provide monthly fertilizer data and supporting the meetings of the Fertilizer Technical Working Groups to collect, analyze, and disseminate annual fertilizer statistics for the nine countries that are the most important fertilizer consumers in the region.

## FeSeRWAM OFFERS INCREASING NUMBERS OF AGRICULTURAL INPUT PACKAGES (AIPs) TO ENSURE BETTER AGRICULTURAL OUTPUT

Two USAID-funded regional projects, EnGRAIS and the Partnership for Agricultural Research, Education, and Development (PAIRED), developed an additional 110 innovative Agricultural Input Packages (AIPs) across agro-ecological zones (AEZs) and countries in the West Africa region during fiscal year (FY) 2021 to help farmers achieve better production and productivity and improve their livelihoods. This brings the total number of AIPs to 190, all developed by the two projects since FY19. By the end of the projects, at least 250 AIPs are expected to be available for use by farmers and other key stakeholders across the region.

Among these additional 110 AIPs, Ghana has the highest number at 16, followed by Senegal at 15, and Nigeria at 14, while other countries have smaller numbers. The lowest number developed was one for Guinea. To make information about the AIPs available and accessible to farmers and other stakeholders, the AIPs are included in the Fertilizer and Seeds Recommendation Map for West Africa (FeSeRWAM), which is an online interactive, GIS-based platform.

The FeSeRWAM/AIPs include AEZ-specific recommendations on appropriate fertilizer blends, improved seed varieties, and good agricultural practices that are relevant to farmers anywhere within AEZs across the region and respond appropriately to their needs.

To provide the needed information and get the AIPs to farmers on time, EnGRAIS and PAIRED trained 50 regional trainers who are currently mobilizing other in-country stakeholders and preparing for cascade training programs for other key stakeholders to support dissemination efforts of the FeSeRWAM and AIPs across the region. Country-specific brochures have been produced in addition to booklets to promote the tools and make them acceptable to the various stakeholders.

**FeSeRWAM** AGRO-INPUT RECOMMENDATIONS FOR **COCOA**

**CROP DETAILS**

Variety Name	MERCEDES
Local Name	
Seed Type	Hybride
Grain/Flesh Color	Marron
Nutritional Quality	Matière grasse
Other Qualities	Qualité, poids des fèves et caractère de précocité (entrée en production en 2 ou 3 ans)
Pest Resistance	
Disease Resistance	
Other Stresses	Ensoleillement, Excès de pluie, pourriture des cabosses, acidité des sols

**FERTILIZER Recommendation**

Application Rate	<b>NPK 0-23-19</b> 250 kg/ha (50kg x 5 bag(s))
Application period	2 fois par an (Zones Centre-Est et Ouest)
Comment	
Application Rate	<b>TSP</b> 150 kg/ha (50kg x 3 bag(s))
Application period	2 fois par an en juillet et août (Zones Centre-Est et Ouest)
Comment	
Application Rate	<b>Nitrate de calcium boraté</b> 250 kg/ha (50kg x 5 bag(s))
Application period	Dans les trous de plantation à la mise en place et en rond 2 fois/an en avril et août chaque année (Zones Centre-Est et Ouest)
Comment	

**Organic Fertilizer**

2,5 t/ha de compost

**Good Agricultural Practices & Management**

Soil and Water Conservation	Method of fertilizer application: Au pied des plants dans les couronnes
Soil Amendment	Phospho-compostage
Water Management	
Pest Management	3 traitements insecticides nécessaires/an à partir de juin
Weed Control	Désherbage manuel et autres tâches d'entretien Desherber les mauvaises herbes, supprimer les plantes parasites et les cabosses pourries
Cropping System	Monoculture

**GROWING MERCEDES**

Production System	Pluvial
Potential yield (kg/ha)	2200-3000/an
Quantity of seed (kg/hectare)	50 cabosses
Cycle Sowing to maturity (number of days)	A partir de 2-3 ans, 2-3 ans (début de production) et à partir de 12 ans jusqu'à 15 ans (pleine production)

**Example of automated AIP content generated on demand by the FeSeRWAM site.**

READ MORE ABOUT THE FESERWAM AND AIPs.



### ...VIFAA GHANA DASHBOARD LAUNCH, CONTINUED

The Ghana Dashboard is a user-friendly tool that will fill key fertilizer information gaps, provide data to help enrich policy and investment decisions in the fertilizer sector, and make up-to-date and comprehensive fertilizer data available to meet the needs of stakeholders along the fertilizer value chain.

Access to accurate and timely fertilizer information has been a challenge for many fertilizer value chain actors. The Dashboard, a data-driven tool, will support one of Ghana's critical national agriculture flagships, the Planting for Food and Jobs program.

Because sub-Saharan Africa has the lowest fertilizer usage in the world, AFO, in collaboration with its VIFAA partners, intends to develop five more dashboards within the next three years, including in Ethiopia, Malawi, Mozambique, Senegal, and Zambia. Two dashboards were already launched in Kenya and Nigeria, so EnGRAIS is making contributions to as noted above to support Nigeria and will support Senegal if it becomes operational before the project's end. Funding for the VIFAA Dashboard project was provided by the Bill & Melinda Gates Foundation.

## ENGRAIS AND PAIRED REVIEW FY21 RESULTS AND FY22 PLANNED ACTIVITIES WITH KEY REGIONAL INSTITUTIONS

One strategic activity that provides guidance for effective implementation of the EnGRAIS and PAIRED projects is the annual Advisory Committee Meeting (ACM) with regional institutions, including ECOWAS; the West Africa Economic and Monetary Union (UEMOA); the Permanent Interstate Committee for Drought Control in the Sahel (CILSS); USAID/West Africa (WA) Regional Office, the West African Fertilizer Association (WAFA), and others. The meeting offers the opportunity to collectively review project accomplishments, discuss planned activities, and provide guidance to both projects.

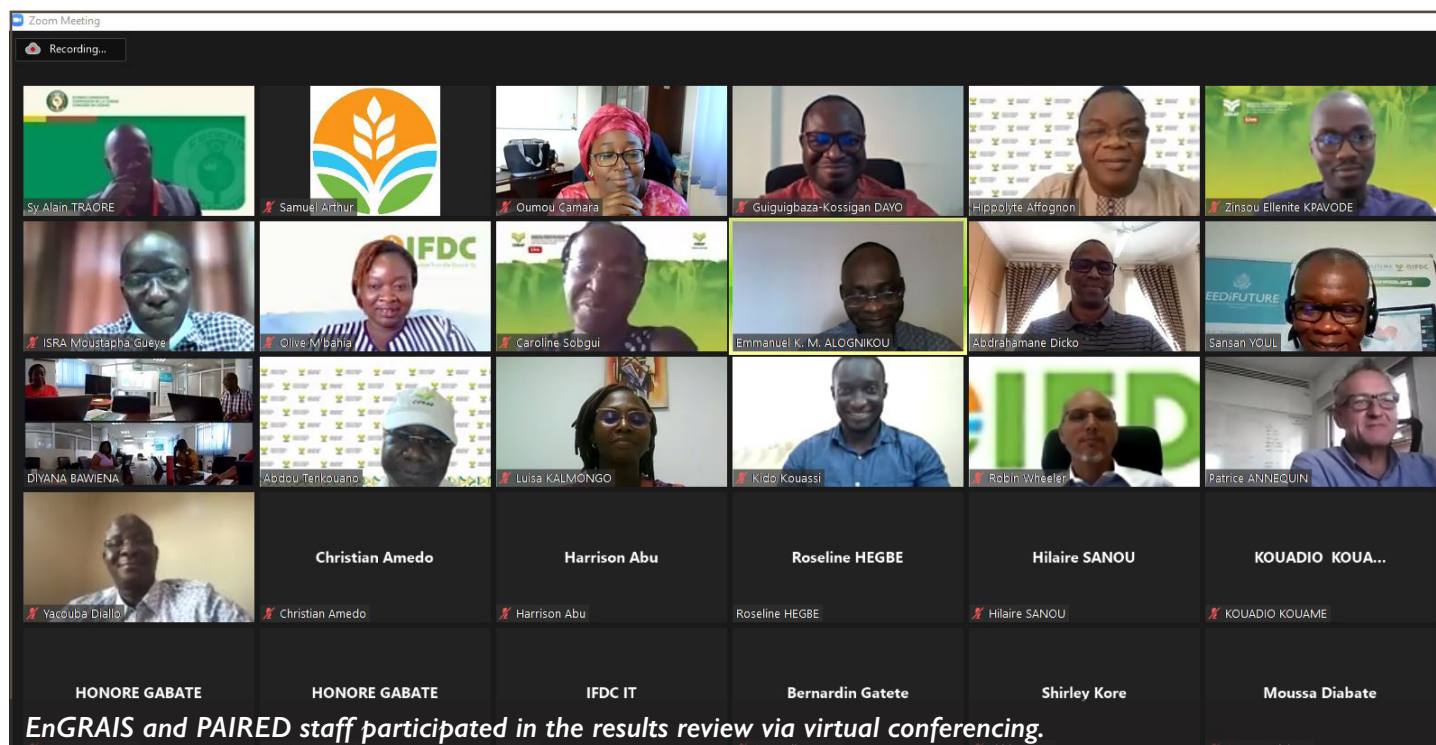
The 2021 EnGRAIS/PAIRED Joint ACM, held September 27–28, 2021, was attended by key stakeholder representatives, including the USAID/WA Regional Mission Director (RMD), Daniel Moore and the ECOWAS Director for Agriculture and Rural Development, Alain Sy Traoré. Moore gave opening remarks and congratulated both projects for their achievements, including the

development of the FeSeRWAM platform and its AIPs, which support the regional agriculture input strategy of ECOWAS, and the successful implementation and harmonization of the regional regulation on seeds and seedlings in ECOWAS, UEMOA, and CILSS Member States.

## KEY ISSUES AND OUTCOMES

Key issues affecting the promotion and support of the regional fertilizer and seed sectors and agriculture dominated discussions during the two-day meeting. The following are key outcomes:

- Moussa Diabate, President of WAFA, confirmed that a meeting is planned between the Director of the ECOWAS Bank for Investment and Development, the ECOWAS Commissioner for Agriculture, and the President of WAFA to examine all challenges related to the U.S. \$520 million credit facility as part the financing of fertilizer purchases and investments.
- Patrice Annequin of EnGRAIS stated that between August 2020 and 2021, prices of fertilizer products increased drastically. The price of urea increased by 80%, DAP by 95%, Potash by 140%, and NPK 15-15-15 by 80%. Sea freight has tripled on all the routes serving West African ports.
- Dr. Yacouba Diallo of PAIRED noted that in June 2020, a study done by the West and Central African Council for Agricultural Research and Development showed significant increases in seed production and cross-border trade figures between countries that did not show these types of increases a few years ago. He further stated that the adoption and implementation of the seed policy regulation has always had challenges in Mauritania, Cape Verde, and Sierra Leone.
- Dr. Diallo also noted that the seed regulation and its implementation have led to seed-related business creation in some countries. He provided examples of Liberia, which now has a seed private sector, and Ghana, where the private sector is allowed to produce first-generation seeds.
- Daniel Adotey, USAID/WA Agreement Officer's Representative for both projects, suggested that going forward, EnGRAIS must establish a clear correlation between fertilizer apparent consumption and yields/food security because it is not enough to determine only apparent consumption.
- Alain Sy Traoré suggested to projects in the region to start thinking of specific mechanisms that will help generate resources to support project implementation activities. He said that if the private sector acquires knowledge and technologies introduced by projects, they should pay for them.
- In response to Traoré's comment, Robin Wheeler, EnGRAIS Chief of Party, said the role of the project is largely facilitation and was not giving away important saleable knowledge and technology to the private sector. He informed the advisory committee (AC) that as the project facilitates the process, the rest of the fertilizer value chain actors/stakeholders need to work together.
- Diabate informed the AC that WAFA is doing well, despite setbacks during the COVID pandemic, and is functioning using its own financial resources now. WAFA is ensuring that various operational committees work well with guidance from IFDC.
- Emmanuel Alognikou of EnGRAIS told the AC it is extremely important to take a special look at the organic fertilizer market, and initiatives are being put in place, including in Ghana, where a guide is being developed to monitor the evolution of the organic fertilizer market in the country.
- Dr. Sansan Youl of EnGRAIS noted that sustainability of the FeSeRWAM platform is a key to increasing production and productivity, but it requires resources to take care of hosting charges, costs of updating and protecting the platform, etc. Stakeholders need to collectively determine how to generate resources and manage roles to ensure sustainability of the products, after the end of the current projects.



- Dr. Hippolyte Affognon, Program Coordinator of PAired, invited ECOWAS and other regional institutions to support the roll-out and implementation of activities of the Regional Agricultural Input Strategy.
- On regional fertilizer policy efforts, Wheeler said very little progress was made due to slow approval processes on the Regional Fertilizer Subsidy Program Guide/Directive and the WACoFeC. He noted that ECOWAS has committed to working on the documents by early FY22 (end of calendar year 2021).

“The objectives set for the two programs have been disrupted by the COVID-19 pandemic. Despite this, a lot has been achieved, including organizing stakeholders during the pandemic to address fertilizer sector issues in the region. I encourage both IFDC and CORAF to continue to provide leadership in the region,” said Alain Sy Traoré, ECOWAS Director of Agriculture and Rural Development.

**READ THE FULL REPORT.**



*Group photo of participants at the regional trainers workshop in Abidjan, Côte d'Ivoire.*

## ENGRAIS AND PAired STRENGTHEN CAPACITY OF REGIONAL TRAINERS ON FeSeRWAM AND AIPs USE TO REACH 600,000 FARMERS IN WEST AFRICA

When EnGRAIS, in cooperation PAired, developed the FeSeRWAM platform and AIPs in 2020, it was to provide accurate and timely information across AEZs on appropriate quality fertilizers, improved seeds, and good agricultural practices, to benefit over 600,000 farmers across West Africa.

The FeSeRWAM ([www.feserwam.org](http://www.feserwam.org)) is a geographical information system and web-based platform that captures, stores, and provides information on recommendations for seeds and fertilizers for the West Africa region and Chad. It is a vehicle through which information on AIPs is delivered.

Because benefiting from this innovative tool requires appropriate training and information, EnGRAIS and PAired trained 50 new regional trainers in July 2021, including eight women and 42 men from nine West African countries (Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali, Niger, Nigeria, Senegal, and Togo) on relevant skills on how to impart knowledge and information on the use of the FeSeRWAM and its AIPs to stakeholders along the agriculture value chain, focusing on farmers.

A team of four facilitators, including experts in soil science, plant breeding, extension and adult education, and strategy, conducted the training, which brought together participants from varied professional backgrounds and experience: 10 from the public sector (research, extension, and agricultural policy), 17 from the private sector (fertilizer and seed), and 23 from civil society

(regional and national umbrella organizations, farmer-based organizations, and non-governmental organizations). The diversity of their countries of origin, expertise, and professionalism enriched the training process.

To ensure efficiency of national level cascade training programs, EnGRAIS and PAired, in cooperation with stakeholders, also developed two innovative training modules: one for national trainers and one for end-users, to guide national- and local-level cascade trainings in various countries to ensure large-scale dissemination of the FeSeRWAM and AIPs across West Africa.

Following the regional training, country teams began and are currently training national-level stakeholders and developing country implementation plans to ensure successful dissemination of the tools across the region,

Through their collaborative activities, EnGRAIS and PAired seek to address the challenges associated with inadequate and inappropriate use of agricultural inputs, particularly seeds and fertilizers, to support efforts to increase agriculture production/productivity in West Africa where the region's fertilizer use remains around 20 kg/ha, far lower than the 50 kg/ha advocated by the Abuja Summit of 2006, and the rate of coverage of quality seed requirements also remains around 25%, due to several factors, including lack of relevant information.

# PLANNED KEY ACTIVITIES FOR NEXT QUARTER (OCTOBER–DECEMBER 2021)

- Support WAFA to prepare and hold its Annual General Meeting and set up its operational technical committees.
- Assist WAFA to consolidate its membership and support national associations.
- Promote business and peer linkages between WAFA, the fertilizer industry, and its customers.
- Support WAFA to prepare and hold its 2022 West Africa Fertilizer Forum and participate in selected virtual and face-to-face conferences, including Africa Fertilizer Financing Mechanism–Africom Fertilizer Financing Forum and the Africom Fertilizer Club.
- Publish a regional overview of fertilizer logistical costs, procedures, and most cost-effective routes.
- Support WAFA to organize a high-level meeting with financial institutions present in the region, with ECOWAS backing, aimed at taking lessons from latest financing experiments and models.
- Publish a consolidated report on annual fertilizer statistics up to 2020 for nine countries and an analytical report on the status and trends of intra-regional trade of fertilizers based on 2015-2010 data collected by Fertilizer Technical Working Groups.
- In cooperation with CORAF, validate 80 additional AIPs suitable for specific crops and agro-ecological zones in West Africa.
- Work with PAIRED to complete the FeSeRWAM platform update and train staff as well as country focal points on it.
- Develop additional tools, including short videos and country reports to be accessible on the platform to encourage, sensitize, and train stakeholders to access and use the updated platform.
- With PAIRED, sign agreements with country stakeholder groups to support the sensitization, marketing, and promotion of AIPs.
- Complete an overview of application of the Regional Fertilizer Subsidy Program Guide (RFSPG) “smart” guiding principles, including introduction and use of AIPs, to improve fertilizer subsidy policies/programs as well as fertilizer value chain efficiency in West Africa.
- Develop training modules on the application of the RFSPG “smart” fertilizer subsidy guiding principles.
- Follow up on the publication of Regulation C/REG.13/12/12 in official gazette of Nigeria.
- Work with ECOWAS to facilitate the launch and first statutory meeting of the West African Committee for Fertilizer Control.
- Review/validate draft Regional Fertilizer Blending Guidelines.
- Review and validate the regional draft laboratory capability assessment report and action plan for capacity building.
- Continue to implement the Feed the Future Senegal Dundël Suuf project activity.
- Have additional discussions with other donors on possible cost-share activities at the country-level.

[www.FeedtheFuture.gov](http://www.FeedtheFuture.gov)

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