



FEED THE FUTURE

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

REPORT

INTRODUCTION TO THE 4Rs WEBINARS

Online Training –
November 30 – December 1st, 2022



USAID
FROM THE AMERICAN PEOPLE



West African Fertilizer Association
Association Ouest-Africaine
de l'Engrais



Developing Agriculture from the Ground Up

Table of Contents

Introduction	3
1. Objectives and Expected Results	3
2. Participants	4
3. Activities	4
3.1 Introductory Session	4
3.2 Technical Sessions	4
3.3 Q&A session.....	5
Conclusion.....	5
4. Annexes	6
4.1. Participant list (Francophones & anglophones).....	6
4.2. TOR and Agenda	11
Background.....	11
Objectives.....	12
Methodology	12
Expected results.....	12
Place and date.....	12
Expected participants	12
AGENDA (draft).....	13

Introduction

Fertilizers provide essential nutrients for the growth and development of crops. As a result, their use helps to improve agricultural production and productivity. However, in the current context of soaring agricultural input prices, fertilizer use appears to be a challenge for most producers, including those in the West African sub-region. As a result, it appears important to use fertilizer efficiently and optimally in order to obtain effective results and have a greater impact on agricultural yields and food security.

The International Fertilizer Development Center (IFDC), through its Feed the Future Enhancing Growth through Regional Agri Inputs System (EnGRAIS) project, in collaboration with the African Plant Nutrition Institute (APNI), has sought to support private sector fertilizer companies to train and advise farmers on best management practices for fertilizer use. Most of these private companies in the sub-region are members of the West African Fertilizers Association (WAFSA). Thus, a framework for collaboration was created between APNI, IFDC and WAFSA, and then materialized through the realization of these online webinars.

These webinars were held in two sessions thanks to the technical support of APNI, which has developed many tools and materials for better management of fertilizer use through the 4Rs. IFDC/EnGRAIS and WAFSA facilitated the meeting through their operational and organizational support. The webinars were held on November 30 for English speakers and on December 1 for French speakers to provide information using the appropriate technical terms in each language and also to facilitate exchanges with stakeholders.

1. Objectives and Expected Results

The general objective of these webinars is to introduce the 4Rs Nutrient Stewardship concept to the technical staff of the West African fertilizer industry.

Specifically, the webinar sessions intended to:

- Equip the fertilizer private sector with the requisite capacity for disseminating knowledge on best fertilizer management practices based on the 4Rs to farmers.
- Orient participants on the principles of 4Rs nutrient stewardship (Right source, Right rate, Right time, and Right place).
- Explain the role of 4Rs principles in enhancing the social, economic, and environmental benefits associated with the adoption of Good Agronomic Practices (GAPs).
- Provide tools to facilitate the extension of GAPs and 4Rs to producers
- Facilitate experience sharing with actors in the fertilizer industry on improved fertilizer recommendations and management in the region.

In parallel, these sessions were also intended to strengthen the existing collaboration between IFDC and APNI and to serve as the basis for the development of an expanded future program on crop and nutrient best management practices between APNI and IFDC.

2. Participants

About 150 people participated in the two webinars. During the English session, 100 participants were present and about 50 participants joined the French session the next day. Most of the participants came from private fertilizer companies in the region, but there were also participants from the public sector (Ministries of Agriculture) and agricultural extension organizations. Representatives from APNI, IFDC, and WAFA were also present to facilitate the sessions and provide technical training.

For more details see the list of participants in the appendix.

3. Activities

3.1 Introductory Session

At the beginning of each session, representatives of the co-organizing institutions noted the importance of this meeting which would provide the basis for 4Rs concept, for better efficiency and effectiveness of soil nutrients.

- For IFDC, during the English session, Mr. Patrice Annequin, Chief of Party (COP) of the EnGRAIS project, invited the private fertilizer sector to be one of the main channels to spread the message for a total implementation of the 4Rs so that farmers will know how to use fertilizers correctly. The next day, Dr. Youl Sansan, Deputy COP of the EnGRAIS project emphasized the importance of the webinar at this time because of the current crises caused by COVID-19 and the Russo-Ukrainian war that have affected prices, availability, and quality of fertilizers. Thus, this concept will allow for optimized fertilizer use.
- For APNI, Dr. Shamie Zingore, Director of Research and Development, said at the English session that APNI was proud to facilitate technically the meeting because the implementation of the 4Rs for effective nutrient management was a way to ensure that farmers will use nutrients properly to maximize benefit and reduce losses. During the French session, Dr. Agnero Therese, Director of the APNI West Africa office, indicated the good collaboration with IFDC which facilitated the organization of these meetings. Dr. Agneroh also indicated that in addition to this introductory webinar, technical materials will be distributed to complement this training. She also urged participants to truly put into practice what they learned.
- On behalf of WAFA, Malick Niang, the secretary in charge of communication participated in both sessions. Mr. Niang briefly presented the association indicating its seven objectives, including fertilizer use and fertilizer quality. According to him, this technical workshop was of great importance to allow the private sector, most of which are members of WAFA, to have sufficient knowledge on better use of fertilizer for the benefit of agricultural producers.

3.2 Technical Sessions

The technical presentations focused on the 4Rs stewardship and were given by Dr. Samuel Njoroge, and Dr. Kokou Amouzou, both Program Coordinators at APNI.

4Rs Nutrient Stewardship, in combination with improved agronomic practices, supports the critical actions of Responsible Plant Nutrition to provide multiple sustainability outcomes such as the following:

- Right Source: "Applying the correct fertilizer and organic resources that provide growing crops with all nutrients required for good growth and maturity"
- Right Rate: "Supplying growing plants with the right amount of nutrients for healthy growth and development".
- Right Time: "Matching nutrient application with the timing of plant nutrient uptake".
- Right Place: "Adding nutrients to the soil at a place where the crops can easily access them"

The 4Rs implementation case study in Ghana showed the real impact of 4Rs implementation in maize trials. Through comparisons between the usual practices and those recommended by the 4Rs concept, participants were able to understand the importance of its implementation through the results presented.



3.3 Q&A session

Participants asked questions and interacted with the technical partners after their presentations. This showed that the topic was of interest and would help them in conducting their respective activities. Most of the questions were about:

- The implementation of these recommendations from the 4R concept with small-scale farmers in the region and according to specific crops
- The application of organic fertilizers due to the high prices of inputs
- Methods and techniques to avoid losses through leaching and volatilization

The answers of the experts helped to clarify these issues and directed the participants to follow the recommendations of the 4Rs which were very important to implement in African countries to benefit farmers.

Participants were also provided with training materials that included the main modules that were summarized for this webinar because of its introductory nature.

Conclusion

In organizing this introductory webinar for a better understanding of the 4Rs concept for nutrient management, APNI, IFDC/EnGRAIS and WAFA aimed to provide technical tools to the fertilizer industry in the region for its dissemination to stakeholders.

Due to the interest raised by the participants, we noted that the subject is of great importance as it would allow to

- *Reduce losses and optimize the use of fertilizers*
- *Increase agricultural production and productivity*

- *Promote the sustainability of production systems through effective nutrient management*
- *Reduce the purchase costs of fertilizers*

Partners believe that a stronger collaboration framework in the coming year could be defined to extend this kind of initiative to a larger number of actors and look forward to further collaborations between APNI and IFDC.

4. Annexes

4.1. Participant list (Francophones & anglophones)

No	Country	Name	Gender	Age Category 15-29	Age Category 30-above	Job Title	Institutions	Sector	Telephone	Email	Signature
1	Nigeria	Rahman Ibrahim	M		X		Albarka Fertiliser	Private / Privé		ib.rahman26@gmail.com	
2	Nigeria	SAFIYANU HAMISU	M	X			Kano Agricultural Supply Company Limited (KASCO)	Public		ibnanafadimat@gmail.com	
3	Nigeria	Chidozie Ernest	M		X		Dangote Fertiliser Limited	Private / Privé		ernest.dozie@yahoo.com	
4	Niger	Abdoul rachid Sahabi	M		X		SOFIA Niger	Private / Privé		abdoulr0484@gmail.com	
5	Côte d'Ivoire	Josias Gires Akotegnon TOVIHO	M		X		Indorama Fertilizer	Private / Privé		iosiastoviho@gmail.com	
6	Nigeria	Soliu Waheed	M		X		FERTILIZER LIMITED	Private / Privé		olawalesoliu@gmail.com	
7	Côte d'Ivoire	AMADOU KONE	M		X		ETG	Private / Privé		amadou.kone@eteworld.com	
8	Mali	Faso Kaba	M		X		Faso Kaba Seed Company Bamako Mali	Private / Privé		fasokaba@yahoo.fr	
9	Mali	Maimouna	F		X		Company Bamako Mali	Private / Privé		fasokaba@yahoo.fr	
10	Burkina Faso	Pierre DJIGUEMDE	M		X		l'agriculture, des ressources animales et	Public		s.pierredjiguede@yahoo.fr	
11	Ghana	Simon Sakyi	M		X		Safisana Ghana Limited	Private / Privé		simon.sakyi@safisana.org	
12	Niger	Moustapha Mahamane Galadima	M		X		SOFIA	Private / Privé		moustaphagaladima@gmail.com	
13	Burkina Faso	Georges VALIA	M		X		SOLEVO BURKINA FASO	Private / Privé		georges.valia@solevogroup.com	
14	Spain	DOMINIQUE TATIANA AKOUN	F		X		YARA COTE D'IVOIRE	Private / Privé		Jocelyne.Akoun@yara.com	
15	Senegal	Innocent Konan	M		X		Solevo group	Private / Privé		innocent.konan@solevogroup.com	
16	Togo	Yasser DAROU-NANSAM	M		X		Ministère de l'agriculture, de	Public		nansamyasser@gmail.com	
17	Senegal	Aissatou Dramé	F		X		Amafric	Private / Privé		dramastou2000@yahoo.fr	
18	Nigeria	Kido Kouassi	M		X		IFDC	Civil Society / NGO Société Civile / ONG		kkouassi@ifdc.org	
19	Côte d'Ivoire	DOSSO MEDJIKRO	M		X		Ministere	Public		dmedjikro@gmail.com	
20	Senegal	Abdoulaye Dieye	M		X		ICS INDORAMA	Private / Privé		Abdoulaye.Dieye@indorama.com	
21	Benin	Victorin GBOGBO	M		X		Végétaux et Contrôle Phytosanitaire /	Public		victgbogbo@outlook.fr	
22	Togo	FANTCHE KASSEGNE	M		X		Direction des filières végétales	Public		fantchekassegne@gmail.com	
23	Côte d'Ivoire	Atse fernand NIANGO	M		X		Afchem sofaco	Private / Privé		f.niango@afchemsofaco.net	
24	Burkina Faso	Daouda SOMA	M	X			Societe Cooperative Simplifiée des Distributeurs	Private / Privé		dsoma.dibemaa@gmail.com	
25	Benin	Jean TOMAVO	M		X		OCP Bénin	Private / Privé		tomavo2002@yahoo.fr	
26	Thailand	Gaoussou NADIE	M		X		d'Approvisionnement en Intrants et Matériel	Private / Privé		eidanagro@yahoo.fr	
27	Togo	Nada'n Patricia GNOMIRE	F	X			l'Agriculture de l'Elevage et du	Public		nadagnom2@gmail.com	
28	Senegal	Fatou Gaye	F		X		SEDAB SARL	Private / Privé		fatougave_ingagro@yahoo.com	
29	Burkina Faso	Claude Bienvenu	M		X		des phosphates du Burkina	Public		bienvenuclaude@gmail.com	
30	Togo	Atsu EKLOU	M		X		CAGIA	Public		clavereklou@hotmail.fr	
31	Benin	COFFI ANTOINE ABOUE	M		X		MAEP	Public		aboueoantoin@yahoo.fr	
32	Mali	Ramatoulaye Coulibaly	M		X		MALIMARK	NGO Société Civile / ONG		r.coulibaly@malimark.org	
33	Mali	DIATIGUI	M		X		INSTAT	Public		diaticam@gmail.com	
34	Burkina Faso	ISSOUF TOE	M		X		MINISTERE DE L'AGRICULTURE	Public		toniissouf@gmail.com	
35	Senegal	Fortune Kouadio	F		X		SEDAB SARL	Private / Privé		humaniste2013@gmail.com	
36	Senegal	Modou THIAM	M		X		sedab	Private / Privé		thiammodou@yahoo.fr	
37	Mali	Mariam BA	F		X		planification et des statistiques Secteur	Public		mariambaborou@gmail.com	
38	Kenya	Samuel Njoroge	M		X					s.njoroge@apni.net	
39	Côte d'Ivoire	Kokou Adambounou Amouzou	M		X					k.amouzou@apni.net	
40	Ghana	Olive M'Bahia	F		X		IFDC	PIO		ombahia@ifdc.org	
41	Senegal	Sansan Youl	M		X		IFDC	PIO		syoul@ifdc.org	
42	Côte d'Ivoire	Malick Niang	M		X					malickniang@gmail.com	
43	Nigeria	Ada Nsitem	F		X					adansitem@gmail.com	
44	Côte d'Ivoire	Therese Agneroh	F		X					t.agneroh@apni.net	

No	Country	Name	Gender	Age Category 15-29	Age Category 30-above	Job Title	Institutions	Sector	Telephone	Email	Signature
1	Ghana	Ishmael Adams	M		x		IFDC	Civil Society / NGO Société Civile / ONG		iadams@ifdc.org	
2	Nigeria	Rahman Ibrahim	M		x		Albarka Fertiliser	Private / Privé		ib.rahman26@gmail.com	
3	Niger	Dia Oumar	M		x		Niger Intrans SARL	Private / Privé		nigerintrans@gmail.com	
4	Nigeria	Ganiyu Oyerinde	M		x		Indorama Eleme Fertilizer and Chemicals Limited	Private / Privé		ganiyu.titilope@indorama.com	
5	Ghana	Kofi Annan-Dennis	M		x		Omnifert Limited	Private / Privé		kofi.dennis@omnifert.com	
6	Nigeria	Chidozie Ernest	M		x		Dangote Fertiliser Limited	Private / Privé		ernest.dozie@yahoo.com	
7	Niger	Abdoul rachid Sahabi	M		x		SOFIA Niger	Private / Privé		abdoulr0484@gmail.com	
8	Côte d'Ivoire	Josias Gires Akotegnon TOVIHO	M		x		Indorama Fertilizer	Private / Privé		josiasstovoho@gmail.com	
9	Nigeria	SURENDRA SRIVASTAVA	M		x		Indorama Fertilizers & Chemicals	Private / Privé		surendra.srivastava@indorama.com	
10	Nigeria	Soliu Waheed	M		x		DANGOTE FERTILIZER LIMITED	Private / Privé		olawalesoliu@gmail.com	
11	Nigeria	AVIJIT SINHA	M		x		Indorama	Private / Privé		avijit.sinha@indorama.com	
12	Nigeria	Ogochukwu Michael Nwakuwa	M		x		Dangote Fertiliser Limited	Private / Privé		michael.nwakuwa@dangote.com	
13	Côte d'Ivoire	AMADOU KONE	M		x		ETG	Private / Privé		amadou.kone@etgworld.com	
14	Mali	Maimouna	F		x		Faso Kaba Seed Company Bamako Mali	Private / Privé		fasokaba@yahoo.fr	
15	Mali	Faso Kaba Seed Company	M		x		Faso Kaba Seed Company Bamako Mali	Private / Privé		fasokaba@yahoo.fr	
16	Mali	Abdoulaye YALCOUE	M		x		Toguna Agro Industries	Private / Privé		yalcoue@groupepetoguna.com	
17	Ghana	Edward Yeboah	M		x		CSIR-Soil Research Institute, Ghana	Public		eyeboah5@hotmail.com	
18	Sierra Leone	Mohamed Kabia	M		x		Mangara Agribusiness Company Limited	Private / Privé		mohamed.kabia@mangara-sl.com	
19	Burkina Faso	Georges VALIA	M		x		SOLEVO BURKINA FASO	Private / Privé		georges.valia@solevogroup.com	
20	Nigeria	Abdullahi Ibrahim	M		x		Kasco Ltd	Public		abdullahi392ibrahim@gmail.com	
21	Nigeria	MOHAMMED MAINA	M		x		Zaria Fertilizer & Rice Milling Limited	Private / Privé		maimoha72@gmail.com	
22	Sierra Leone	Eddie Ndawah	M		x		Mangara Agribusiness Company Limited	Private / Privé		eddie.ndawah@mangara-sl.com	
23	Ghana	SHABAN ABDUL-MANAF	M		x		OMNIFERT COMPANY LTD	Private / Privé		shaban.manaf@omnifert.com	
24	Senegal	Innocent Konan	M		x		Solevo group	Private / Privé		innocent.konan@solevogroup.com	
25	Nigeria	Joel Ijasini	M		x		Fertilizer and Chemicals Limited	Private / Privé		sallyvias@gmail.com	
26	Nigeria	YUSUF MOHAMMED	M		x		FERTILIZERS AND CHEMICALS LIMITED	Private / Privé		YAYUSWORLD@GMAIL.COM	
27	Nigeria	Fabian Nwaogu	M		x		and chemicals limited, Rivers state Nigeria	Private / Privé		nwaogufabian@gmail.com	
28	Nigeria	Abubakar Adua	M		x		Fertilizer and Chemicals Limited	Private / Privé		aduaabubakar@gmail.com	
29	Nigeria	Iortyer Samuel	M		x		Fertilizer and Chemical Company Ltd	Private / Privé		samueltortyer57@gmail.com	
30	Nigeria	Yakubu Muhammad Abdullahi	M		x		Indorama fertilizer company	Private / Privé		yakubu.abdullahi@indorama.com	

31	Nigeria	Muazu Sani Umar	M		x		Indorama Fertilizer LTD	Private / Privé		Sanimuazu69@gmail.com
32	Nigeria	Oluwatobi Michael O.	M		x		Indorama Fertilizer Limited, Nigeria.	Private / Privé		hodeyemmy@gmail.com
33	Nigeria	Olusiji SANNI	M		x		Fertilizer and Chemicals Limited	Private / Privé		olusijip@gmail.com
34	Ghana	Mabel Appiah - Danso	F		x		Ghana Statistical Service	Public		mabel.appiahdanso@statsghana.gov.gh
35	Nigeria	Abdulwahab YUSUF	M		x		Fertilizer and Chemicals Limited	Private / Privé		wahabdenivi@gmail.com
36	Nigeria	Galaxy A70	M		x		Fertilizer and Chemical Limited	Private / Privé		jamesakwaji@gmail.com
37	Nigeria	Abdulwaheed Audu	M		x		Fertilizer and Chemicals Ltd	Private / Privé		auduabdulwaheed@yahoo.com
38	Nigeria	Abdullahi Umar	M		x		Indorama Fertilizer	Private / Privé		umarartemarh@gmail.com
39	Nigeria	Mohammed Shamsuddeen Jibrin	M		x		Indorama fertilizer	Private / Privé		mohasjibrin@gmail.com
40	Nigeria	KINGSLEY EZE	M		x		FERTILIZER AND CHEMICALS LTD	Private / Privé		kingsleyeze77@gmail.com
41	Nigeria	David Stanley	M		x		Indorama	Private / Privé		stanleydavid4ril@gmail.com
42	Nigeria	ABDULLATEEF ABDULRAHAMAN	M		x		FERTILIZER AND CHEMICAL LIMITED.	Private / Privé		abdullatifalabi@yahoo.com
43	Nigeria	INDORAMA	M		x		Indorama fertilizer	Private / Privé		princeadebowale639@gmail.com
44	Nigeria	Sani Umar	M		x		FERTILIZER AND CHEMICAL	Private / Privé		thanyumar@gmail.com
45	Nigeria	Abubakar Magaji	M		x		INDORAMA	Private / Privé		emj217@yahoo.com
46	Nigeria	Shola Binuyo	M		x		Indorama fertilizer	Private / Privé		Shola_binuyo@yahoo.com
47	Nigeria	Akinlolu OHUNAKIN	M		x		Indorama Nigeria	Private / Privé		akin_bjvi2001@yahoo.com
48	Nigeria	Benjamin Aku	M		x		Indorama Fertilizer and Chemicals LTD	Private / Privé		benjaminaku@gmail.com
49	Nigeria	Jimba Victor Ojoarome	M		x		Indorama Eleme Fertilizer & Chemical	Private / Privé		jimbavictor@gmail.com
50	Burkina Faso	SORGHO Brahim	M		x		ADS BURKINA SARL	Private / Privé		sorghobrahima3@gmail.com
51	Nigeria	RAYMOND BAKODO	M		x		Indorama fertilizer Company Limited	Private / Privé		bakodoraymond@gmail.com
52	Nigeria	Inyang Nkanor	F		x		IFDC	Société Civile / ONG		inkanor@ifdc.org
53	Nigeria	Aminu Salisu	M		x		Indorama Petrochemicals Company	Private / Privé		Salisuaminu892@yahoo.com
54	Kenya	Esther MUGI	F		x		APNI	Private / Privé		e.mugi@apni.net
55	Togo	Yasser DAROU-NANSAM	M		x		Ministère de l'agriculture, de l'élevage et du développement rural	Public		nansamyasser@gmail.com
56	Nigeria	Martins Afiagh	M		x		Indorama Fertilizer	Private / Privé		afiaghmartins@gmail.com
57	Nigeria	Kido Kouassi	M		x		IFDC	Société Civile / ONG		kkouassi@ifdc.org
58	Togo	Kouadio Amavi	M		x		Digisoft Education	Private / Privé		Kouadio@digisoft-education.com
59	Benin	Victorin GBOGBO	M		x		Végétaux et Contrôle Phytosanitaire / Direction	Public		victgboibo@outlook.fr
60	Nigeria	Aminu Aliyu Gulumbe	M		x		Indorama fertilizer	Private / Privé		gulumbealiyu@gmail.com
61	Côte d'Ivoire	Boni Richard DJIHA	M	X			Étudiant	Public		bonrichardd@gmail.com
62	Côte d'Ivoire	Kouadio Lassinan Fabrice NDA	M		X		Yara.ci	Private / Privé		fabrice.ndakouadio@yara.com
63	Nigeria	Ajiboye Tunji	M		X		Indorama fertilizer and chemical ltd	Private / Privé		ajiboye.tunji@indorama.com
64	Nigeria	Abdulhakeem Mustapha	M		X		INDORAMA	Private / Privé		olofamajo1@gmail.com
65	Ghana	Ernest Osei-Assibey	M		X		PPRSD-MOFA	Public		sieversaty@yahoo.com

66	Ghana	Caleb amponsah	M		X		Plant Protection and Regulatory Services	Public		caatiemo@gmail.com
67	Ghana	Benjamin Fiafor	M		X		Farm Radio International	Civil Society / NGO		bfiador@farmradio.org
68	Ghana	Kofi Boateng	M		X		SRI	Public		edkoboat@hotmail.com
69	Nigeria	Sunday Oke	M		X		FEDERAL MINISTRY OF AGRIC	Public		sunokeric@gmail.com
70	Mali	Moulaye larab SIBY	M		X		UNRIA	Private / Privé		larabsiby@gmail.com
71	Togo	FANTCHE KASSEGNE	M		X		Direction des filières végétale	Public		fantchekassegne@gmail.com
72	Nigeria	Abubakar Yahaya Muhammad	M	X			Indotama Fertilizer	Private / Privé		abubakarym674@gmail.com
73	United States	Jide Kolajo	M		X		INDORAMA ELEME FERTILIZER	Private / Privé		Kolajobabajide@gmail.com
74	Ghana	William Coffie	M	X			Plant Protection and Regulatory Services	Public		williamcoffie143@gmail.com
75	Côte d'Ivoire	Wondouet Hippolyte KPAN	M		X		University Felix Houphouët-Boigny	Public		kpanh@vmail.com
76	Ghana	Samuel Nana Siaw Okyere	M		X		PPRSD	Public		snsokyere@gmail.com
77	Côte d'Ivoire	Christ Assamoi	M	X			Leaders Corporation	Private / Privé		Tchrist7@gmail.com
78	Nigeria	Christian Obama Orjiakor	M	X			IEFL	Public		sakrist2014@gmail.com
79	Nigeria	ABUBAKAR SANI ABDULLAHI	M		X		INDORAMA	Private / Privé		abubakargreat@gmail.com
80	Ghana	Nancy Boison	F	X			MOFA-PPRSD	Public		nancyboison@yahoo.com
81	France	Abdourahmane Bibi Ndiaye	M		X		Sadia	Private / Privé		ndiayebibi26@gmail.com
82	Nigeria	Abdulganiyu Taufiq	M		X		Indorama fertilizer company	Private / Privé		abdulganiyutaufig@gmail.com
83	Ghana	AGNES EFFAH	F		X		OMNIFERT LTD	Private / Privé		agnes.effah@omnifert.com
84	Ghana	Dauida Asare-Bediako	F	X			Pprsd	Public		davidaasare14@gmail.com
85	Nigeria	OrevaOghene Aliku	M		X		OCP Africa	Private / Privé		o.aliku@ocpafrika.com
86	Kenya	Samuel Njoroge	M		X					s.njoroge@apni.net
87	Côte d'Ivoire	Kokou Amouzou	M		X					k.amouzou@apni.net
88	South Africa	Shamie Zingore	F		X					s.zingore@apni.net
89	Ghana	Olive M'Bahia	F		X		IFDC	PIO		ombahia@ifdc.org
90	Kenya	Patrice Annequin	M		X		IFDC	PIO		pannequin@ifdc.org
91	Senegal	Sansan Youl	M		X		IFDC	PIO		syoul@ifdc.org
92	Côte d'Ivoire	Malick Niang	M		X					malickniang@gmail.com
93	Nigeria	Ada Nsitem	F		X					adansitem@gmail.com
94	Côte d'Ivoire	Therese Agneroh	F		X					t.agneroh@apni.net

4.2. TOR and Agenda

Background

Since 2018, The International Fertilizer Development Center (IFDC), has been implementing the five-year Feed the Future project "*Stimulating Growth through Regional Agricultural Input Systems (EnGRAIS)*" funded by the U.S. Agency for International Development (USAID/WA) West Africa Regional Mission. This project aims at contributing in a sustainable way to the improvement of agricultural productivity in West Africa and is articulated around three axes of intervention called intermediate results (IR): 1- IR1 carries out actions to reinforce the competitiveness of the private sector of fertilizers, IR2 participates in the development of the Agricultural Input Packages and their diffusion in the region and IR3 facilitates the harmonization of the policy and regulatory framework relating to the fertilizers in the West African region

The West African Fertilizer Association (WAFSA), established in 2016, is a major player in promoting the interests of the fertilizer sector in West Africa. WAFSA thus represents most of the region's fertilizer producers, importers, blenders, and distributors to address the challenges facing the private fertilizer sector. Thus, since 2018, the Association has been working closely with IFDC through its EnGRAIS project for the development and dynamism of the fertilizer market with the main objective of bringing quality and accessible fertilizers to agricultural producers in the region.

The African Plant Nutrition Institute (APNI) is a not-for-profit research and education organization with the mission to enhance plant nutrition for a resilient and food-secure Africa. APNI is the regional scientific authority on the 4R Nutrient Stewardship Framework, a framework that promotes best nutrient management practices based on applying the Right Source of nutrients, at the Right Rate, at the Right Time, and in the Right Place. To support the adoption and dissemination of 4R practices for improved nutrient management, APNI has developed a suite of 4R knowledge products in form of nutrient management guides, cropping guides and training courses through its involvement in the 4R Solutions project which is currently under implementation in Ethiopia, Ghana and Senegal. Given its' extensive experience in development and dissemination of best nutrient management practices based on the 4Rs, APNI is a key player in facilitating the provision of relevant information on best fertilizer use practices.

The current context of soaring fertilizer prices in the world has strongly impacted the availability and accessibility of this input in our region. The successive crises due to COVID and the Russo-Ukrainian conflict have strongly disrupted the supply chains of fertilizers and thus reduced the volumes destined for the West African markets. The high prices and reduced availability of fertilizers have significantly impacted on farmers' ability to intensify crop production based on fertilizer use, and there is urgent need to support farmers with the relevant information to allow them use available fertilizer resources more optimally for sustainable crop productivity intensification. As extension/field agents serve as the first point of contact between farmers and research institutions, it is imperative that field agents possess the requisite knowledge on best fertilizer management practices based on the 4Rs. In light of this, ENGRAIS, WAFSA, and APNI plan to organize webinars to give more knowledge on the 4Rs concept for the efficient use of fertilizers to field agents from the fertilizers industry in the region.

Objectives

The general objective of these webinars will be to introduce the technical staff of the West African fertilizer industry to the 4R Nutrient Stewardship concept that will equip them with the requisite capacity for disseminating to farmers knowledge on best fertilizer management practices based on the 4Rs.

The specific objectives of the webinars will be:

- Orient the participants to the principles of 4Rs nutrient stewardship (Right source, Right rate, Right time, and Right place).
- Explain the role of 4R principles in enhancing the social, economic, and environmental benefits associated with the adoption of Good Agronomic Practices (GAPs).
- Provide tools to facilitate the extension of GAPs and 4Rs to producers
- Facilitate sharing experience with actors in the fertilizer industry on the improved fertilizer recommendations and management in the region

Methodology

The webinars will be held in two sessions, based on the language of facilitation (English and French) to enable effective training and interaction with the participants.

These webinars will also be interactive workshops that facilitate knowledge exchange between fertilizers industry actors for sharing experiences with their colleagues in the region.

Expected results

- The 4Rs concept is introduced to the fertilizer industry in West Africa
- Technical staff of the private sector receives guidance and tools and materials to facilitate the dissemination of GAPs from the 4Rs concept to the farmers in the region
- Stakeholders are aware of APNI e-learning opportunities

Place and date

The webinars will be held online from November 30 November to December 1st, 2022 for 2-hours sessions each day. The English session is planned for the 30th of November and the French session for the 1st of December.

Expected participants

About 100 participants are expected to attend. They will be mainly technical and commercial teams of WAFA members (agronomists, R&D managers, heads of marketing/extension agents)

However, this webinar will be open to any other participant who wants to learn about the 4Rs issues. Thus, Agricultural extension agents from other organizations are also expected to attend.

AGENDA (draft)

Hours	Activities	Responsible
9:00-9:15	Opening ceremony	IFDC, APNI, WAFA,
	Remarks from EnGRAIS/IFDC	
	Remarks from APNI	
	Remarks from WAFA	
9:15-9:30	Introduction to the 4Rs Concept	IFDC, APNI
9:30-09:45	Right Sources	APNI
9:45-10:00	Right Rates	APNI
10:00-10:15	Case study: <i>On-farm Trials: 4R Nutrient Stewardship and GAPs for Sustainable Maize Production in West Africa</i>	APNI
10:15-10:30	Right time & Right place	APNI
10:30-11:00	Q&A session	Participants
	Sharing Experience	
11:00-11:15	Feedback and expectations from the participants for future activities	Participants
11:15 - 11:30	Closing ceremony	
	Message from APNI (4Rs Handbook sharing)	APNI
	Message from EnGRAIS	IFDC