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EVALUATION

Midterm Evaluation of the West Africa Seed Program (WASP)

Final Report

August 2016

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ACRONYMS

ACDEP	: Association of Church-based Development Project
ADS	: Automated Directive System
AFAP	: Africa Fertilizer and Agribusiness Partnerships
AfDB	: African Development Bank
AFSTA/WA	: African Seed Trade Association/West Africa
AGRA	: Alliance for a Green Revolution in Africa
ANCS	: Associations Nationale des Commerçants Semenciers
AOSCA	: Association of Official Seed Certifying Agencies
APFOG	: Apex Farmers Organization of Ghana
APSP	: Agricultural Policy Support Project
ASIWA	: Alliance for a Seed Industry in West Africa
ASPRODEP	: Association sénégalaise pour la promotion de petits projets à la base
ASSEMA	: Association Semencière du Mali
ASSESS	: Analytical Support Services and Evaluations for Sustainable Systems
ATTP	: Agricultural Technology Transfer Project
AU	: African Union
BOAD	: Banque Ouest Africaine de Développement
CAADP	: Comprehensive Africa Agriculture Development Program
CBN	: Central Bank of Nigeria
CGIAR	: Consultative Group for International Agricultural Research
CILSS	: Comité Permanent de Lutte Contre la Sécheresse dans le Sahel
COASem/WASC	: Comité Ouest Africaine de Semence / West Africa Seed Committee
CORAF/	Conseil Ouest et Centre Africain pour la Recherche et le Développement
WECARD	: Agricoles/West & Central African Council for Agricultural Research & Development
CSIR-CRI	: Council for Scientific and Industrial Research-Crops Research Institute
CSIR-SARI	: Council for Scientific and Industrial Research–Savanna Agricultural Research Institute (Ghana)
DCS	: Directorate of Crop Services
DISEM	: Division des Semences
DPPRS	: Directorate of Plant Protection and Regulatory Services
DSU	: Delaware State university
DRDR	: Direction Régionale du Développement Rural
ECOWAP	: ECOWAS Common Agricultural Policy
ECOWAS	: Economic Community of West African States
EU	: European Union
FAO	: Food and Agriculture Organization
FARA	: Forum for Agricultural Research in Africa
FBOs	: Farmer Based Organizations
FMARD	: Federal Ministry of Agriculture and Rural Development
FtF	: US Feed the Future Initiative
GAIDA	: Ghana Agri-Inputs Dealers Association

GAPs	: Good Agricultural Practices
GESS	: Nigerian Growth Enhancement Service Scheme
GLDB	: Grains & Legumes Development Board (Ghana)
GSID	: Ghana Seed Inspection Dealers
GTZ	: German Society for International Development
IARC	: International Agricultural Research Centers
ICRISAT	: International Crops Research Institute for the Semi-Arid Tropics
IFAD	: International Fund for Agricultural Development
IFDC	: International Fertilizer Development Center
IFPRI	: International Food Policy Research Institute
IITA	: International Institute of Tropical Agriculture
ILRI	: International Livestock Research institute
INSAH	: Institut du Sahel
IPPC	: International Plant Protection Convention
IPRs	: Intellectual Property Rights
ISO	: International Standards Organization
ISRA	: Institut Sénégalais de la Recherche Agricole
ISTA	: International Seed Testing Association
KNUST	: Kwame Nkrumah University of Science & Technology
M&E	: Monitoring and Evaluation
MAAN	: Maize Association of Nigeria
MDTF	: Multi-Donor Trust Fund
MFI	: Micro Finance Institution
MOA	: Ministry of Agriculture
MSMEs	: Micro, Small, and Medium Enterprises
NARS	: National Agricultural Research Systems
NGO	: Non-Government Organizations
NARI	: National Agricultural Research Institute
NSTA	: National Seed Trade Association
NEPAD	: New Program for African Development
NCRI	: National Cereal Research Institute
NIRSAL	: Nigerian Incentive-Based Risk Sharing for Agricultural Lending
OECD	: Organization of Economic Cooperation and Development
OPVs	: Open Pollinated Varieties
PASS	: Program for African Seed Systems
PITT	: Performance Indicator Tracking Table
PMP	: Performance Management Plan
PPP	: Public-Private-Partnerships
QPM	: Quality Protein Maize
RAIP	: Regional Agriculture Investment Plan
RAO	: Regional Agriculture Office
RDCS	: Regional Data Collection Systems
RESOPP	: Réseau des Organisations Paysannes et Pastorales
RIFAN	: Rice Farmers Association of Nigeria
ROPPA	: Réseau des Organisations Paysannes et de Producteurs de l'Afrique de l'Ouest

SEEDPAG	: Seed Producers Association of Ghana
SG/MAER	: Secrétariat Général/ Ministère de l'Agriculture et de l'Équipement Rural
SG/MDR	: Secrétariat Général/Ministère du Développement Rural
SMEs	: Small and Medium-size Enterprises
SOP	: Standard Operational Procedures
SWOT	: Strength, Weaknesses, Opportunities and Threats Analysis
UEMOA/	: Union Économique et Monétaire Ouest Africaine/West African Economic and
WAEMU	: Monetary Union
UNIS	: Union Nationale Interprofessionnelle des Semences
UPSECL	: Unité de Production de Semences Céréales et Légumineuses
URI	: University of Rhode Island
USAID/WA	: United States Agency for International Development/West Africa
VCU	: Value for Cultivation and Use Testing
WAAPP	: West Africa Agriculture Productivity Program
WAFP	: West Africa Fertilizer Program
WASA	: West Africa Seed Alliance
WASCA	: West Africa Seed Companies Association
WASIX	: West Africa Seed Information Exchange
WASNET	: West Africa Seed and Planting Material Network
WASP	: West Africa Seed Program
WB	: World Bank

1. ACKNOWLEDGMENT

The evaluation would not have succeeded without the willingness of all stakeholders involved with the West Africa Seed Program (WASP) to actively participate in the process and to provide answers to our numerous questions. The people the evaluation team¹ met and interviewed are so many that it will be impossible to acknowledge everyone, but a few merit special mention.

We begin our acknowledgement with USAID/WA, particularly, the Deputy Chief of Mission, the Head of REGO, Mary Hobbs, and the Leader of RAO, Elizabeth Brown for the briefing and de-briefing sessions. Special thanks goes to Matthew Udziela who provided great support to the evaluation.

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The mid-term evaluation of WASP could not have taken place without the invaluable support of Abdourahmane Ba, the COP of ASSESS. We would like to express our sincere gratitude to him for putting the team together and for the various orientations and guidance provided. To all of ASSESS - we are deeply indebted!

¹ In the rest of the document, the evaluation team will be referred to as “**MTE team**”

2. EXECUTIVE SUMMARY

This report constitutes the Mid-term Evaluation (MTE) of the USAID West Africa (WA) Seed Program (WASP) carried out by the Analytical Support Services and Evaluations for Sustainable Systems (ASSESS) project. This MTE assesses the performance of the seed program implemented by the West & Central African Council for Agricultural Research & Development (CORAF/WE CARD), to determine if planned activities are leading to desired expected outcomes. The MTE findings will inform USAID/WA on progress in the establishment a regional seed system that involves key stakeholders engaging in the execution of their respective roles and responsibilities. The MTE will also serve as a learning tool to permit mid-course adjustment to the WASP activity. The report is intended to assist WA partner institutions, the seed industry in general and the Economic Community of West African States (ECOWAS) in particular to fulfill the goal of sustainable seed system. The MTE provides insight for USAID/WA in the prioritization of activities it may choose to support to meet this goal within the framework of the Feed the Future (FtF) initiative for “Improved Sustainable Agricultural Productivity” and in line with its Regional Development Cooperation Strategy (RDCS).

Agricultural productivity in WA and the use of high quality seed, fertilizer and other agricultural inputs are among the lowest in the world. Robust, sustainable, high value, improved seed systems are critical for food security and enhanced agricultural productivity with climate-resilient and higher value crops. The operating hypothesis of USAID/WA is: *“By developing a sustainable WA seed system using WASP as the catalyst in constructing public-private-partnerships (PPP) to build the private seed sector and establish seed networks - farmers will have access to a high-quality seed supply that is self-sufficient”.*

The Four Planned WASP Results Under CORAF/WE CARD include: (R-1) establishing an operational and inclusive regional-level Alliance to strengthen the Seed Industry in West Africa (ASIWA) among ECOWAS member states; (R-2) strengthening national and regional seed policies (laws and regulations); (R-3) increased production and use of quality Breeder Seed by the public sector (National Agricultural Research Institute - NARIs, Consultative Group for International Agricultural Research - CGIARs, etc.) to meet breeders, industry and farm demand for Certified Seed (CS); and (R-4) for long-term economic sustainability - strengthening WA private sector participation in the seed industry to produce high quality, improved, Foundation and Certified seed.

The MTE has been conducted through documentation review, field visits and interviews with core stakeholders. Overall, 145 individuals and 51 organizations were interviewed in Ghana, Senegal, Mali and Nigeria. The criteria for the evaluation were based on eight primary questions (See Annex 1. Evaluation SOW) identified by USAID in the MTE SOW. These criteria included: 1) Relevance & Leadership in Strengthening WA Seed System, 2) Effectiveness, and 3) Sustainability and Lessons Learned. The methodology and specific sub-questions and measurements used in reference to these criteria are described in detail in the report.

USAID WA will have invested US\$ 12 million² in the 5-year WASP, ending in 2017, to deliver capacity building for all actors in the seed value chain, technical assistance, and knowledge and information sharing. At the time of the evaluation, \$8,095,448 (67,46% of the total budget) was spent by the project.

Key findings of the evaluation are as follows:

1) WASP's Relevance and Leadership in Strengthening the West Africa Seed System

According to ECOWAS and the UEMOA Directors of Agriculture, WASP has been essential for countries implementing the ECOWAS Harmonized Regional Seed Regulation (Regulation

² This includes the funding of \$3,000,000 for the Rice Offensive assigned to CORAF.

C/REG.4/05/2008 on Harmonization of the Rules Governing Quality Control, Certification, and Marketing of Plant Seeds and Seedlings) in the ECOWAS Region; WASP has been the driving force in putting seed policy at the forefront of the ECOWAS countries' agricultural agenda.

If ECOWAS had adopted the Harmonized Regional Seed Regulation and just left it at that, it would almost certainly still not be implemented today. Thanks to WASP, the country members of ECOWAS received the necessary support to kick-start implementation of the regulations. The majority of member countries are in compliance with the Regulation.

There is still much to do. The control, certification and quality assurance services are far from where they need to be for an efficient and viable seed system in West Africa (plus Mauritania and Chad). The emergent private sector can be trained in seed control and certification to fill the void resulting from an inadequate number of government controllers.

The hosting of WASP within CORAF is mutually beneficial to both. CORAF provides administrative, technical and governance support to WASP and WASP provides technical and managerial support to CORAF. The relationship is largely positive. Both entities, including the managers, desire to maintain it.

Key Recommendations include:

- a) In the remaining period of USAID support (11 months), WASP should improve the reinforcement of capacity of national organizations in charge of seed quality control and seed certification. Beyond USAID support to WASP, ECOWAS and CORAF should find a more sustainable approach with countries to ensure the reinforcement of capacity of national organizations in charge of seed quality control and seed certification through greater involvement of the private sector (for example, scale-up of the North Senegal experience in training private controllers).
- b) ECOWAS should maintain CORAF/WE CARD leadership in implementing WASP. The MTE found that CORAF is an effective host organization for WASP. WASP is on track to achieve its objectives. Any delays being experienced are not significantly hampering its performance.
- c) The West African Economic and Monetary Union (UEMOA/WAEMU) Commission should sign the acknowledgement page of the regional seed catalogue to make it an official document and allow for it to be uploaded onto the West Africa Seed Information Exchange (WASIX) website.

2) WASP Effectiveness and Success

Overall, WASP, under the leadership of CORAF and in partnership with task force members (ECOWAS, UEMOA, Comité Permanent de Lutte Contre la Sécheresse dans le Sahel/Institut du Sahel - CILSS/INSAH), in relation with CGIARs and NARIs, has achieved its target as per WASP US Feed the Future Initiative Monitoring System (FtFMS) approved indicators. *The Average Global Achievement Rate is estimated at 106%*, despite low achievement (14%) for targets on private sector access to loans. Discussions during field work corroborate that WASP, overall, has been on the right track, as evidenced by positive results observed in terms of political commitment to seed development, involvement of the private sector in the control and production of seed, and launching of the Alliance for a Seed Industry in West Africa (ASIWA) and the West Africa Seed Committee/Comité Ouest Africaine de Semence (COASem).

Prior to WASP, the private sector's role in the seed industry was at a very low level. While WASP has greatly enhanced private sector involvement in the seed industry, there is much room to consolidate and improve the performance of the private sector in the seed industry. There are both challenges and opportunities. While large seed companies find it difficult to operate in WA, because of the large number of small markets (except in Nigeria) there are niches for SMEs in the seed value chain. The WA private sector seed industry is still embryonic [small size, lack of financial attractiveness, and distortion of markets through government subsidies and grants from NGOs and other partners] and is not well

organized. Until recently, the private sector has not been given the opportunity to contribute to the decision-making process on issues such as regulations and commerce affecting the seed industry.

Through a long process of sensitizing and mobilizing various seed industry stakeholders within the region, WASP was able to establish ASIWA and COASem which were highly welcomed by all seed stakeholders, including ECOWAS, UEMOA, CILSS, ROPPA, CGIARs, and the private sector. These newly established institutions still need to be reinforced and made functional to fully play their role in the seed industry with full ownership by the actors.

Key Recommendations include:

- a) ECOWAS, UEMOA, CILSS-INSAH need to advocate for graduate training programs to develop the next generation of critically needed seed technologists and plant breeders for both the WA public and private seed sector.
- b) ECOWAS and UEMOA should facilitate the development of a funding mechanism to establish a loan-guarantee scheme to support private seed value chain actors and facilitate PPPs to improve seed control and certification through greater private sector participation.
- c) Seed fairs should be up-scaled to countries not currently using them and WASP should accelerate training on the use of the Electronic Exchange WASIX throughout target countries before the end of the program. Actions should be taken to make the WASIX fully functional and accessible – and managed directly by ASIWA by the end of the ongoing phase of WASP.
- d) ECOWAS should, through better coordination of efforts and communication, take necessary actions to make ASIWA and COASem fully operational through training, capacity building, facilitating consultations and improving capabilities to leverage funds for financing the private sector seed industry is also needed. To make this happen, these actions need to be integrated in the new Regional Agriculture Investment Plan (RAIP).

3) Sustainability & Lessons Learned

WASP provides packages of production inputs in support of Breeder, Foundation and Certified Seed for the national institutions involved in Breeder Seed production and for the private sector involved in Foundation and Certified Seed production. WASP's efforts in facilitating the Harmonized Regional Seed Regulation through advocacy are instrumental to ensure free trade and bring down fertilizer prices.

CORAF has demonstrated its capacity to manage WASP, as well as to replicate lessons learned. The synergy between WASP and the West Africa Agriculture Productivity Program (WAAPP) in various countries has also demonstrated very positive results. This cooperation between the two programs should, therefore, be continued to ensure successful scaling-up or replication. It is indeed reasonable to expect CORAF to replicate/scale the WASP demonstrated model of capacity support for Breeder Seeds throughout the NARIs in the WA region and beyond.

The MTE Team's understanding is that the current phase of WASP did not include, from the design stage up to now, a strong exit strategy and a detailed plan of action that aims at making the regional institutions (ECOWAS, UEMOA and CILSS) take full ownership of this program. Rather WASP has been viewed by these institutions as a "*USAID project*" in which they must participate because the project objectives match the objectives of their agricultural policies and strategies. WASP project designers may have taken for granted the ownership of WASP by these regional institutions.

Ultimately, all the institutions being put in place by WASP at the national and regional levels such as ASIWA, COASem and National Seed Trade Association (NSTA) and those already existing such as African Seed Trade Association/West Africa (AFSTA), ROPPA, and private seed companies among others, are to take full responsibility for development of the seed industry. Of course, this will require support and oversight from ECOWAS, UEMOA and CILSS (for regional policies and regulations) and

financial support from African Development Bank (AfDB), Banque Ouest Africaine de Développement (BOAD), the World Bank (WB) and any other agencies like USAID. As the technical body, CORAF will definitely have a role to play in these initiatives. WASP/CORAF and ECOWAS fall short in designing and implementing a comprehensive communication strategy and fundraising mechanism to sustain the institutions, activities and achievements realized with USAID support.

Key Recommendations include:

- a) ECOWAS, UEMOA and CILSS should ensure that resources are put aside to ensure a continuation of work of WASP and to approach other donors, other than USAID, and the member countries for support to seed work in West Africa. The final aim is to enlarge the financial and technical base of partners in support of a viable seed system in West Africa.
- b) ECOWAS, UEMOA and CILSS should communicate more effectively to the Ministers and Heads of State in the sub-region the positive impact of WASP and how WASP is solving a chronic problem like access to improved seed. ECOWAS, UEMOA and CILSS should inform the other stakeholders involved in the Comprehensive Africa Agriculture Development Program (CAADP) process, e.g., Forum for Agricultural Research in Africa (FARA), New Program for African Development (NEPAD) and the African Union (AU) about ECOWAS contribution to the solution of access to improved seed in West Africa.
- c) CORAF's general mandate includes networking and support to NARS and NARIs. Moreover, CORAF is at the same time implementing the successful project, WASP. CORAF also has an administrative setting and a scientific team capable of replicating WASP success stories. It is therefore recommended for USAID and ECOWAS to assist CORAF in two concurrent ways:
 1. To continue to support CORAF in reinforcing its institutional capacity so as to allow CORAF to fulfill its general mandate;
 2. To take necessary actions for CORAF and ECOWAS to develop a comprehensive WASP exit strategy and, during the transition period, provide to CORAF the necessary financial support in moving forward.

There are six WASP-led initiatives ready for scale-up during the remaining period of implementation of the project and beyond.

1. Seed regulation implementation (harmonization of regulations, certification of Breeder, Foundation and Certified Seeds and intellectual property right issues)
2. Seed Forecasting Tool – for demand and supply
3. Private sector production of Foundation and Certified Seed
4. The WASP Business Model to foster sustainable supply of Foundation and Certified Seed.
5. Regional resiliency through improved seed regulation and trade: Success in the Ebola Initiative Experience.
6. WASP M&E system – to consolidate and replicate.

The Way Forward

1. Ensure that West Africa Seed stakeholders and programs work together in greater synergy. It is unacceptable that seed actors in WA are not collaborating and programs continue “doing their own thing” on a silo approach – particularly in a time of limited resources, poor agricultural productivity, a population doubling in 20 years, and with WA seed actors acknowledging the importance of seed systems for agriculture and food security.

Recommendation: ECOWAS should take the necessary actions for better synergy between WASP and Alliance for a Green Revolution in Africa - AGRA (SSTP, AGRA PASS), including MOUs at the technical level between CORAF/WASP and AGRA) – and ensure strategic alignment between

WASP/CORAF, AGRA, WAAPP and Food and Agriculture Organization (FAO) in the support of West Africa seed industry.

2. Facilitate better collaboration between WASP/CORAF and WAFP/IFDC. For integration of seed and fertilizer for improved and climate-smart and resilient seed production, ECOWAS should integrate fertilizer use in seed production in the WASP/CORAF mechanism and facilitate the collaboration with West Africa Fertilizer Program (WAFP) for improved agriculture productivity. While the COP of WASP and new COP of WAFP want to better collaborate, a technical MOU is required to do so (23June2016 Interview, COP WAFP; 7June2016 Interview, M&E, Dep. COP, WAFP; and numerous interviews with WASP COP). This is more than an “administrative problem”, rather a WA bureaucracy/silo mentality between CORAF and International Fertilizer Development Center (IFDC) for a “technical MOU needed” for WASP and WAFP to better collaborate. And both programs are funded by USAID under the ECOWAS umbrella.

Recommendation: ECOWAS and USAID need to facilitate a dialogue between IFDC and CORAF for better synergism needed between WASP and WAFP on fertilizer use in breeder, foundation and certified seed production. For long-term growth of both input sectors, a consortium of seed and fertilizer industries are need for future directions - working with WASP and WAFP – since commercialization (R4 in WASP) are common goals of both programs. The consortium would include WASP/CORAF, WAFP/IFDC, industry seed actors, ROPPA, NASTAs, ASIWA, AFSTA, AFAP-African Fertilizer & Agribusiness Partnership, etc.

3. Address the disconnect between ECOWAS and WASP/CORAF to move towards a non-projectized regionally owned seed program. While ECOWAS approached USAID with a CILSS and UEMOA consortium to initiate both WASP and WAFP - ECOWAS now feels little ownership of WASP, which to them has evolved into a CORAF-USAID project that USAID will continue funding. In a 1June2016 interview with the ECOWAS –Director of Agriculture & Rural Development & UEMOA Director of Agriculture & Rural Development and the former M&E of WASP - their consensus was: WASP is looked at by industry, ECOWAS, other regional players (CILSS, UEMOA) and other Seed groups/players as a stand-alone USAID-funded “seed project” with CORAF – rather than the regional “SEED PROGRAM” that ECOWAS and USAID had envisioned it to be with WA Regional “ownership”. ECOWAS currently still needs to build a future sustainable “Plan B” for WASP after USAID funding ends.

Recommendation: Communication among the actors needs to dramatically improve. USAID should support/facilitate WASP/CORAF interaction with ECOWAS/UEMOA/CILSS, and have the actors develop a strategic plan for development of the WA Seed industry and its economic sustainability – with many more players needed than USAID as a primary sponsor.

4. Assemble a WA consortium for planning a WASP Phase II with heavy Representation of the Private Sector. Greater private sector participation of the seed industry in seed system development is critical. Clearly, WASP is resulting in positive achievements for the nascent private sector (ASIWA, WASIX, support of Foundation and Certified Seed production and marketing).

Recommendations:

WA Consortium needs to be developed now for the planning/development of a WASP-phase II. The consortium should include: ASIWA, NASTA, ROPPA; other seed players – consider marketing Corporate Social Responsibility Opportunities (CSR): Monsanto, Syngenta, DuPont, Groupe Limagrain, PANAR Seeds (South Africa); and other African seed actors: AGRA/PASS, AGRA SSTP, WAAPP, FAO, Africa Seeds, etc.

ECOWAS through its Task Force should facilitate the integration of private partners into WASP for a better implementation of the R4. This is possible through the existing sub-grantee approach WASP/CORAF used with NARIs and CGIARs that could be opened to private partners.

5. Enhance WASP/CORAF Sustainability. WASP/CORAF is not financially sustainable as a stand-alone seed project funded by USAID. There needs to be a better synergism and strategic alignment between WASP and a consortium of ECOWAS CILSS, UEMOA, Industry (seed, fertilizer, other agriculture input and larger seed industry players, ASIWA, NASTA and ROPPA) and other seed organization players for additional funds mobilization. WASP/CORAF have had many successes: WASP/CORAF has implemented the ECOWAS regional harmonized seed regulation, and established COASem and ASIWA through a participatory approach, WASP has supported seed capital reconstitution in different countries after the Ebola threat under ECOWAS mandate, etc. These WASP achievements are favorable foundation to build a sustainable regional seed program.

Recommendation1: Development, implementation, monitoring and assessment of a sustainability plan are prerequisites for subsequent actions to enhance the sustainability of WASP/CORAF. There must be a comprehensive and systematic stand-alone sustainability plan, which includes elements such as decisions about approach (phase-out and gradual phase-over), explicit benchmarks and timelines for progress, clear allocation of responsibilities, graduation criteria and progressive withdrawal of project support, and capacity building of private seed sector and government organizations to progressively take up the management and provision of project services. In so doing, sustainability will be included as an integral part of any future program design and embedded throughout implementation. Again, one milestone to be mindful of must be the development of a comprehensive and systematic sustainability plan.

Recommendation2: While the Average Global Achievement rate was high (106%) for WASP, a glaring weakness was private sector access to loans, which only had a 14% achievement rate. For a successful seed industry in WA, seed producers require a “package-approach” of high quality seed, fertilizer, irrigation (needed for double-cropping and climate-resilience), other GAPs inputs, market access and micro-finance, guaranteed/low-interest loans to create the “pull-through” for a sustainable seed industry. There is need to improve access to credit for seed companies with lower rates and to develop/enhance seed associations for “cooperative benefits” to their members.

Financial modalities that need to be addressed include: micro-finance, guaranteed/low-interest loans critical for seed industry. Programs for small-holder seed producers include AGRA, WAAPP, the new WB program on commercialization of agriculture that has matching funds, etc. **WASP** is on the right path with development of its **business plans** (one of the six recommended WASP scalable programs) facilitating seed companies to access commercial banks and micro-finance institutions (MFIs).

In other agricultural industries in Africa and the world, the development of agricultural cooperatives can give members access to cheaper agricultural inputs bought in bulk, mechanization and processing equipment, and cooperative-guaranteed loans. These are potential opportunities for the various seed associations AFSTA, ASIWA, NASTAs, ROPPA, etc. to develop similar “cooperative benefits” for their members as they start to gain traction.

3. BACKGROUND

3.1. The West Africa Seed Program

Agricultural productivity in WA and the use of high quality seed, fertilizer and other agricultural inputs is among the lowest in the world. Agriculture remains the main engine of economic growth in West Africa (WA). The sector contributes 30-40% of the region's gross domestic product (GDP) and 15% of regional export earnings. Agriculture is the principle source of livelihood, employing some 65 percent of the population, and is best positioned to enjoy sustained growth and help with poverty reduction in West Africa. However, the sector is hampered by low productivity and lack of smallholder farmer integration into markets and poor access to services, as well as low usage of quality seed, fertilizer and other agro-inputs.

Improved seed is not getting to farmers at the levels needed. The WA seed value chain lacks strong links among research institutions, seed producers, seed certifiers and farmers. The major constraints of the seed industry include: 1) limited access to quality seed; 2) limited technical and financial capacity of plant breeders; 3) weak and undeveloped local seed enterprises due to lack of access to credit, insufficient foundation seed that is needed for multiplication in producing certified seed to sell to farmers, low farmer demand for improved seed, poor marketing and quality control, and weak policy and regulatory systems; 4) weak and undeveloped agro-dealer networks, which are critical for sustainable value-chain development; 5) inefficient mechanisms to enforce seed regulations – critical for ECOWAS seed regulations (adopted in 2008), which undermines commercial development of regional seed markets; and 6) limited capacity of NASTAs.

ECOWAS sought USAID support to address these challenges. USAID/WA, as part of the Feed the Future (FtF) strategy for “Improved Sustainable Agricultural Productivity” and in line with its Regional Development Cooperation Strategy (RDCS), developed the WASP to continue its efforts to increase the production and use of improved seed. USAID/WA strategy is to alleviate constraints and create efficiency in production, and to build the capacity of West Africans. CORAF/WECARD was chosen as the implementing partner (IP) to lead WASP. CORAF/WECARD is an international non-profit organization bringing together national agricultural research systems (NARs) of 22 countries in West and Central Africa. CORAF/WECARD collaborates with international and regional partners involved in agricultural research, including the CGIAR (ICRISAT/WASA, IITA, AfricaRice, ILRI, IFPRI, World Agroforestry, and Biodiversity International), Advanced Research Institutions, AGRA and CILSS. CORAF/WECARD previously coordinated the West Africa Seed Network (WASNET), which initiated the creation of the National Seed Trade Associations (NASTA) in collaboration with AFSTA.

WASP focuses on building the private sector and establishing seed networks so that farmers can have access to a high-quality seed supply that is self-sufficient. This also aligns with ECOWAS's top priorities in the agricultural sector to expand modern agricultural inputs through a private sector approach. ECOWAS's strategy is to promote sustainable intensification on the supply side of agricultural inputs via production of improved and certified seed, local production of fertilizers and conducting research on the intensification of food crops. As an example of the challenge: only 12-13% of the sales demand for improved maize and rice was achieved according to a 2009 survey of eight ECOWAS countries (**Table 1.) Hence, the WASP goal is to increase production by 25%, 22,300 MT for maize and 21,150 MT for rice by 2017.** Special efforts were to be made to benefit poorer farmers, including women, but the goal is getting all levels of farmers using more certified seed.

Table 1. Seed need and seed supply in West Africa (in volume MT and values \$US)

	W.A. need (T)	W.A. supply (T)	%	WA Need Value (US\$)	WA Supply Value (US\$)	%
Maize	180,072	58,464	32.47%	183,576,788	60,440,883	32.92%
Rice	364,457	106,395	29.19%	447,318,100	137,528,666	30.75%
Sorghum	104,107	3,703	3.56%	118,172,410	4,044,246	3.42%
Millet	82,759	6,506	7.86%	82,035,590	5,863,000	7.15%
Cowpea	301,724	1,257	0.42%	475,408,590	1,366,786	0.29%
Groundnuts	302,318	5,709	1.89%	406,754,060	5,350,304	1.32%
TOTAL	1,335,437	182,034	13.63%	1,713,265,538	214,593,885	12.53%

Source: WASP Annual report, 2013

The *Four Planned WASP Results Under CORAF/WECARD* include: (R-1) establishing an operational and inclusive regional-level Alliance to strengthen the Seed Industry in West Africa (ASIWA) among ECOWAS member states; with the goal of increased agri-business capacities of African Seed Trade Association (AFSTA) and National Seed Trade Associations (NASTAs) – allowing them to become the seed industry leaders; (R-2) strengthening national and regional seed policies (laws and regulations) - with implementation/ harmonization of ECOWAS Seed Regulations; (R-3) increased production and use of quality breeder seed by the public sector (NARIs, CGIARs, etc.) to meet breeders', industry and farm demand for certified seed; (R-4) for long-term economic sustainability - strengthening WA private sector participation in the seed industry to produce high quality, improved, foundation and certified seed.

The WASP –WA seed system framework, includes the progression of seed production from Breeder to Foundation to Certified Seed needed for producing improved seed for farmers to produce more resilient and higher-yielding crops. WASP/CORAF is linked to all the seed value chain actors.

3.2. WASP and the Seed Industry in West Africa

Access to quality seeds. Seeds are first and foremost, the source of most foods, at least of plant origin, and as such are the most crucial components of agriculture. Therefore, seeds have the greatest socio-economic benefit to human welfare of any known biological device. The development and use of high yielding seed varieties have been the technological forces behind the successful green revolution, the availability of food at prices profitable for farmers and affordable by consumers, and a reduction in rural poverty (Louwaars and Marrewijk, 1999). Thus, the provision of seeds, both in normal and disaster years, is a prerequisite for increasing food production, improving farmers' income, alleviating poverty and ensuring food security.

The public sector supports the seed sector in different ways, notably by carrying out research in breeding and developing varieties, by arranging and subsidizing seed quality controls or seed promotion and by protecting breeders' rights. The public sector can also stimulate investments in the seed sector by introducing tax measures and by subsidizing certain seed products. Furthermore, the public sector may participate in the production and distribution of seed for crops considered essential for national security.

Seed Regulations. Many of the countries in the WASP have a Seed Act which provides for the establishment of a National Seed Council that will formulate policies for the development, production, inspection, sampling, analysis, conditioning and marketing of seeds in the respective countries.

Appropriate seed legislation at the national and regional levels is essential to create an enabling environment for the development of the seed sector. A seed strategy establishes short, medium and long term objectives for the development of the seed sector and prescribes strategies to reach them (Kuhlmann, 2015). It is a shared vision of the seed sector and of intentions of all stakeholders regarding the desired

structure, role and development of the seed sector. The development of the seed sector at the national and regional levels requires strategic planning by which policy statements provide the vision and better define the role of key stakeholders and activities.

Harmonizing seed laws in WA facilitates cross-border movement of seeds and provides a broader market for seed enterprises. This is now recognized as vital for the development of the seed sector. By facilitating cross-border seed trade, the harmonization of seed regulations also allows countries with seed deficit to more easily find seed in neighboring countries, and therefore contributes to seed security (Keyser, 2013).

Seed and Fertilizer Linkages for Improved Productivity. For increased crop productivity, both high quality, improved and certified seed, and appropriate fertilizer usage are needed for sustainable intensification. While fertilizer usage and crop productivity in WA is among the lowest in the world, there are good agribusiness opportunities for developing resilient value-chains for quality seed, fertilizer and other inputs. WA is well positioned to increase improved seed and fertilizer usage and agricultural productivity due to investments in agriculture, improving policy and the potential for regulatory enforcement. Both CORAF/WECARD and IFDC, with USAID/WA, have recognized the importance of seed and fertilizer for ECOWAS member states in the development of the WASP and WAFP programs.

Access to quality inputs is a significant barrier to agriculture production in WA. For the past 30 years, gains in agriculture production have come from expansion, NOT yield improvement. While recent spending on input subsidies is helping in some countries, use of improved seed and fertilizer is insignificant in most farm operations for staple crops (corn, rice, sorghum, wheat). WA remains highly dependent on food imports, which will only be exacerbated during the next 20 years when the population doubles, with most of the growth occurring in large urban and peri-urban areas (Keyser et al., 2013, 2015).

Greater private sector involvement and more robust value-chain linkages are imperative in driving the demand for farmers to utilize quality seed and fertilizer to service increasing food demands from urban, peri-urban and rural markets. One of the challenges for the WASP and WAFP programs is better leveraging a disorganized private sector.

4. EVALUATION PURPOSE AND SCOPE

4.1. Evaluation Scope and Expected Results

USAID/WA RAO has commissioned the ASSESS project to conduct the performance MTE to help the WA Mission better understand WASP's progress to date and determine whether the interventions and the team are properly oriented to achieve the program's goal. The main objective of this evaluation is to assess and document the extent to which WASP is achieving its objectives. (See Annex – WASP MTE SOW).

After more than three fiscal years of implementation (2013- 2016), a comprehensive look at the program should help to identify strengths, weaknesses, challenges, opportunities (SWOT) and needed adjustments to the approaches, nature and range of services and inputs for the remainder of the WASP. The "WASP MTE final SOW" for ASSESS, listed possible mid-course adjustments, including scope of work revisions, work plan changes, and activity monitoring and learning plan adjustment. Additionally, USAID/WA expects that lessons learned and recommendations from the MTE will guide all key stakeholders in preparing a new Project Appraisal Document (PAD) and describing activities for future programs such as the next generation of National Agricultural Investment Plans and post Feed the Future agriculture activities.

Overall, the primary audience for this evaluation is USAID Regional and Bilateral Missions in West Africa, ECOWAS, CILSS, UEMOA, CORAF/WECARD, ROPPA, other USAID/West Africa regional partners, seed producers, seed distributors, farmer organizations, National Seed Committees, IITA, AGRA, Africa Seeds, other agriculture research institutions involved in seed production, private sector businesses participating in seed production, donors, NGOs, and community-based organizations. The ASSESS evaluation team gathered a wide range of information from these key stakeholders to ensure that the findings and recommendations are based on an accurate understanding of the CORAF/WECARD program, and that multiple perspectives have been considered. Broad consultation also paves the way for more widespread utilization of the evaluation results.

The scope of the mid-term performance evaluation encompasses assessment of all key activities and program components that contribute to the achievement of the WASP's overall goal and objectives. The performance MTE focuses on results, provides in-depth review and analysis of key program strategies – including integration of the private sector, implementation strategy, and the regional cohesive approach of the program. The performance MTE additionally explores the critical factors for program success, reviewing the partner and beneficiaries mapping, identifying implementation challenges, opportunities and innovations for improvement and providing real-time remedial measures for accelerating the achievements of WASP at all relevant levels.

4.2. Evaluation Questions

According to the USAID Evaluations Policy (Evaluation Learning from Experience: USAID Evaluation Policy, January 2011) - *"Performance evaluations focus on descriptive and normative questions: what a particular project or program has achieved (either at an intermediate point in execution or at the conclusion of an implementation period); how it is being implemented; how it is perceived and valued; whether expected results are occurring; and other questions that are pertinent to program design, management and operational decision making."* These questions address the two primary purposes of evaluations in USAID: accountability to stakeholders and learning to improve effectiveness.

Accountability involves measuring project effectiveness, relevance and efficiency. Together these form the standard Evaluation Criteria every evaluation seeks to address, which are: Relevance, Effectiveness, Efficiency, Sustainability and Lessons Learned.

It is worth noting that the evaluation criteria of efficiency and impact are not applied in the case of this MTE. No evaluation objective or question is about the timely and cost-effective implementation of WASP (efficiency), or about the long-term effects resulting from WASP and the real differences made to the beneficiaries (impact). In sum, the evaluation criteria worth considering are the *relevance*, *effectiveness*, and *sustainability* of WASP.

The eight Evaluation Questions in the SOW have been mapped to this standard Evaluation Criteria and the Evaluation Priority Areas provided (see the Table below). The mapping shows that the evaluation questions center on three evaluation criteria: **Relevance, Effectiveness and Sustainability**. Consequently, this midterm evaluation will not focus on issues of efficiency and impact.

Table 2. Mapping of performance evaluation criteria, evaluation priority areas and evaluation questions

Evaluation Criteria	Evaluation Priority Areas			
	A: Progress to Date in Achieving Planned Results	B: Team strength and collaboration modalities in support of improved seed production	C: Capacity building results and the potential for sustainability	D: strategic areas of results that are ready for scale up
Relevance		Q4: What is the link and dependency between CORAF and WASP? For example, please describe the types/amounts of technical support CORAF provides to the WASP team, and vice versa.	Q3: Is WASP's leadership in strengthening the seed system and advancing the ECOWAS Seed Regulations regarded as necessary (or integral to scaling-up seed input success) by their counterparts such as the International Agriculture Research Centers, and NARIs, etc.?	
Effectiveness	Q1a: How successful has the WASP activity been in meeting its planned targets? If certain activity components have not been successful, please explain why (incorrect assumptions, programmatic issues such as lack of attention to gender/youth integration into the seed sector or lack of attention to fertilizer, private sector issues, staffing issues, etc.). Q1b: What are the areas of WASP performance, if any, that require USAID attention?	Q6: How has the private sector fulfilled the roles expected of it in the regional seed sector? For example, describe the viability of the private sector and how it is advancing the development, promotion and sale of certified and foundation seed. Q6a: What vulnerabilities/weaknesses/gaps still exist within the private sector and what can be done to address them?	Q5: What actions (structures, processes, etc.) have been taken since the establishment of AISWA and COASem to meet their respective objectives and to enable their sustainability? Please include a description of the role/responsibility of core stakeholders, and address whether each has successfully understood and demonstrated their contribution.	
	Q7: To what extent has WASP considered fertilizer as			

Evaluation Criteria	Evaluation Priority Areas			
	A: Progress to Date in Achieving Planned Results	B: Team strength and collaboration modalities in support of improved seed production	C: Capacity building results and the potential for sustainability	D: strategic areas of results that are ready for scale up
	a constraint in the use of seed varieties it is promoting? Please include in your analysis a review/description of the investments made by WASP in documenting fertilizer use during the field-testing stage.			
Sustainability & Lessons Learned	Q8: How is WASP addressing the fertilizer issue (utility/supply/demand) in the move from breeder to foundation and certified seed?	Q4a: Is it reasonable or not (and why) to expect CORAF to replicate/scale the WASP demonstrated model of capacity support for breeder seeds throughout the NARIs in the West Africa region?	Q3a: Are the institutional structures/relationships now in place, for example within partnership institutions such as the NARIs, or are they being developed to sustain the relationships and investments that are being made by WASP?	Q2: What recommendations are there for strengthening, improving and building upon (scale-up) program successes of WASP sub-activity successes post-2017? Include in your analysis the viability and approach WASP has taken to build supply and/or meet farmer demand for improved seed.

5. METHODOLOGY, DATA COLLECTION AND ANALYSIS

5.1. Data Collection

ASSESS collaborated with the RAO and CORAF/WE CARD to finalize the methodology and tools for the assessment prior to commencement of the evaluation. The MTE team traveled to capital cities and/or selected localities and sites in Ghana, Senegal, Mali, Cote d'Ivoire, and Nigeria. The MTE team met and interviewed representatives from 53 organizations divided into the following six types of organizations (note that the institutions/organizations/programs in bold below have a regional coverage):

Table 3. Organizations and stakeholders met by country

Organization type	Côte d'Ivoire	Ghana	Mali	Nigeria	Senegal	Teleconference consultation
<i>Implementing Partner</i>	WASP (COP and former M&E)	WASP (National Seed Specialist)	WASP (National Seed Specialist)	WASP (National Seed Specialist)	CORAF/WE CARD WASP (All core staff)	
<i>Ministry of Agriculture</i>		DCS DPPRS	SG/MDR	Permanent Secretary/M A National Agricultural Seed Council	SG/MAER DISEM DRDR/Saint-Louis	
<i>Research Institutes and Centers</i>		CSIR-CRI SARI	LaboSem	NCRI IAR&T AfricaRice IITA	ISRA/UPSE-CL AfricaRice	
<i>Private Sector</i>		NASTAG SEEDPAG APFOG GAIDA M&B MAS	NACO SHI AGRIPLUS Camara Semences EUCORD ASSEMA Comptoir 2000 Faso Kaba	SEEDAN	ROPPA UNIS AFSTA GIE des Techniciens Agréés au Suivi/Contrôle des Semences	
<i>Farmer-based associations</i>		Women's groups from the Volta region ACDEP	USCPMD	RIFAN MAAN	ASPRODEP RESOPP PROSE FEPRODES Elhadj Fall	
<i>Regional Bodies and others</i>	ECOWAS (Director, Agricultural and Rural Development)	WAAPP (Project Coordinator) WAFP (M&E Specialist)	CILSS/INSAH (Seed Policy Specialist and another core staff) WAAPP		WAAPP (Project Coordinator) Hub Rural (Executive Director)	UEMOA (Agriculture Director) WAFP (COP) AfricaSeeds (Executive Director)

Organization type	Côte d'Ivoire	Ghana	Mali	Nigeria	Senegal	Teleconference consultation
			(Deputy Project coordinator)			AGRA (Executive Director)

A list of relevant stakeholders per country, including the names of organizations, and contact persons provided by USAID/West Africa (USAID/WA) and CORAF/WECARD was utilized as a selection framework. Table 4 below provides a synthesis of the visits and meetings.

Table 4. Meeting participants, summary

	Number of organization types	Participants		
		Male	Female	Total
Ghana	6	23	3	26
Senegal	6	45	9	54
Mali	6	21	7	28
Cote d'Ivoire	2*	2	0	2
Nigeria	6	33	0	33
Total	6	124	19	143**

* MTE team traveled to Abidjan to meet the Director of Agriculture Department of ECOWAS, and the former M&E of WASP.

**This total does not account teleconference participants including, Seyni Hamadou and Luisa Maria Dias Gomez Kalmongo from UEMOA Agriculture Directorate based in Ouagadougou (Burkina Faso); Robin Wheeler (Chief of Party of WAFP); Kouame Miezan (Executive Director of AfricaSeeds) and Kapran Issoufou (Executive Director of AGRA).

Based on the evaluation questions, the MTE team developed and applied the data collection tools provided in the annex section of this report. Data collection methods utilized for this performance evaluation include:

- ✓ **Documentation review:** A structured document review guide (see Annex 3. I) was used to summarize information generated during the documentation review. A list of documents reviewed is also provided in Annex 6.
- ✓ **Institutional capacity assessments:** The MTE team assessed a set of organizational components (including administrative and governance functions, technical/program functions, structure and resources) that are representative of the organizations of interest, WASP partners (CORAF, ASIWA, COASem, NARIs and ROPPA). This was important to inform future decision making relating to strategy, operation, funding, and capacity strengthening.
- ✓ **SWOT analysis:** SWOT analysis was conducted as part of the performance evaluation to collect and examine data on WASP program strengths, weaknesses, opportunities and threats to better understand what core internal and external factors are influencing achievement of the WASP objectives.
- ✓ **Strategy, Policy and Implementation Review:** The MTE team reviewed and analyzed regional seed policies and strategic actions initiated to advance the use of improved seeds in the region. This approach enabled the MTE team to assess WASP's potential to contribute to improve the seed sector in West Africa.

- ✓ **Key informant interviews and focus group discussions:** These two qualitative approaches were applied in the evaluation to enable the team probe in-depth and obtain information for validating some of the observations gathered through document reviews. The guides for interviewing the different stakeholder groups can be found in the annex 3. A to H.

5.2. Data Analysis

To analyze the data gathered and inferring from the evaluation questions the MTE team utilized analytically rigorous and appropriate techniques, including comparative, quantitative, qualitative, and content analyses. The Evaluation Matrix (see Annex 2.) provides the range of data analysis methods employed.

Data was disaggregated by country, component, type of stakeholder, and gender (where applicable). Most importantly, the analysis was consolidated regionally to better understand and evaluate the value addition and outcome of the program. Data triangulation and night brainstorming sessions helped to ensure that specific data analysis at country and stakeholder levels were made progressively so as to better prepare the findings and recommendations as appropriate to the evaluation questions.

Specifically, the MTE team brainstorming sessions consisted of reading through the data collection tools individually completed, editing notes taken during the meetings, and building consensus on what is to be captured in the team synthesis tools. Furthermore, using content analysis, the MTE team summarized what was seen or heard in terms of words, sentences, themes, or patterns. This helped to record perceptions of the WASP at all levels and to develop a general framework for analyzing the data.

However, all isolated perspectives, even though not under common themes, were highlighted to increase the richness and broadness of the evaluation results. Numeric data captured in the team synthesis tools and/or derived from the WASP PMP and PITT were analyzed using percentages, mostly.

5.3. Probable Evaluation Limitations and Risks

The MTE team identified possible limitations, including lack of baseline data, possible loss of meaning and data richness because of the use of translators when discussing with farmers, respondents' and evaluators' individual biases, possible misinterpretation due to note taking in English while the interview was in French and/or local languages, data collection tools not formally pretested due to time constraints, and the involvement of WASP staff members throughout the evaluation processes.

The MTE team took corrective actions to minimize the limitations of the methods. For instance, triangulation helped complement quantitative data with qualitative data and cross-check contextual data, secondary data, project data, and evaluation-generated data. The team gained a mutual understanding of the documents before field work began. Data collection tools were designed to minimize leading statements or questions. The MTE team took detailed notes of the discussions and interviews. The MTE team was able to give time to speak to all participants in group discussions.

The MTE team took advantage of the first week of field work in Ghana to make minor changes to the data collection tools (e.g., deleting and/or adding sub-questions depending on their relevance to the category of respondents). Brainstorming helped to discuss different ways of interpreting data collected and, de facto, controlling biases. The presence of WASP staff members introduced relatively minimal bias, when the bias is assessed against the gains from their knowledge of the terrain. Additionally, the MTE team is confident that the interviewees were outspoken.

6. FINDINGS AND RECOMMENDATIONS

6.1. WASP's Relevance and Leadership

6.1.1. WASP's Relevance in Strengthening the Seed System

- *Is WASP's leadership in strengthening the seed system and advancing the ECOWAS Seed Regulations regarded as necessary (or integral to scaling-up seed input success) by their counterparts such as the International Agriculture Research Centers, and NARIs, etc.?*

The Harmonized Regional Seed Regulations (Regulation C/REG.4/05/2008 on Harmonization of the Rules governing Quality Control, Certification, and Marketing of Plant Seeds and Seedlings in the ECOWAS Region) was adopted by ECOWAS in May 2008 and by UEMOA in March 2009. As of May 2016, the rate of implementation of the Harmonized Regional Seed Regulations across the 17 countries is 91% as compared to 41% in April 2013 (Asiedu, E. WASP Interview 31May2016).

All the countries have set up their national seed committee. A regional seed committee has also been set up. The national committees make up the membership of the regional committee. It is this regional committee that will propose, approve and recommend to ECOWAS all matters relating to seed (A.S. Traore, 1 June 2016 Interview; Cooperative Agreement USAID & CORAF Aug 2012).

The ECOWAS Harmonized Regional Seed Regulation has been published in national journals/gazettes in 12 of the 17 countries, and also, these countries have their national seed regulations aligned to the regional. The 5 countries remaining include Ghana, Guinea Bissau, Cape Verde, Mauritania and Chad. The delay for Ghana, Guinea Bissau and Cape Verde can be attributed to bureaucratic red tape, but, for Mauritania and Chad it is due to a legal blockage. These two countries are not members of ECOWAS or UEMOA but they are members of CILSS. It may require signing a Tri-partite Agreement between ECOWAS, UEMOA and CILSS to engage these two countries.

All the countries received support from WASP and INSAH to align their national legal text and regulations to the ECOWAS Regulation. The Regulations required (1) the establishment of a national Variety Catalogue, (2) the establishment of a National Seed Committee and (3) establishment of a national Seed Sector Support Fund (SSSF). All the countries are in compliance. Four draft decrees providing for the establishment of above 3 requirements were provided to the countries by INSAH. A fourth one was provided for the establishment of Special Technical Regulations (STR for production, quality control and certification of seeds and plants).

With WASP and INSAH's support – all the countries have compiled a catalogue of varieties and are working on putting these together into a regional catalogue. There is a draft regional catalogue that awaits signature of UEMOA for it to become official. Following that, the regional catalogue will be computerized and uploaded onto the WASP website and then linked to the West Africa Seed Information Exchange (www.WASIX.net) (Dembele, S. INSAH Interview 31 May 2016).

To facilitate implementation of the Regulation, the Seed Policy Task Force (SPTF) drafted and reviewed 3 procedure manuals for (1) variety cataloguing, (2) seed quality testing and certification and (3) import-export. In addition, SPTF supported 7 countries (Benin, Cote d'Ivoire, Ghana, Guinea Conakry, Mali, Senegal and Togo) to compile their National Quarantine Pest List.

WASP, through the SPTF, has strengthened the ECOWAS countries' capacities through training workshops in the norms of the regulation: registration of varieties in the national and regional catalogues;

development of database management programme for the catalogue, design of the catalogue, quality control and certification of seeds and plants and phytosanitary certification. All exports of seed from and within the region must be accompanied by a phyto-sanitary certificate, a certificate of origin and a label to facilitate movement of seeds originating from the ECOWAS zone (Reg. C/REG.4/4/02 Relatif à l'Adoption d'Un Certificat d'Origine des Produits Originaires de la Communauté). Those trained included national regulators, plant breeders, inspectors at the borders, laboratory and field controllers, seed growers' associations and the private sector.

Finally, a Variety Release Committee (VRC) is set up in each country. The International Agricultural Research Centers (IARCs) and NARIs also expressed appreciation of the contributions of WASP to their work in the seed system. WASP supports the IARCs and NARIs in their Breeder Seed work. Annually, they receive an order for quantities of Breeder Seed from the programme who, in turn, pre-finance the cost of production. This has allowed them to work smoothly and to deliver. The IARCs and NARIs also received trainings sponsored by WASP, especially, the breeders and their field technicians. Another related achievement of WASP is that before 2013, the IARCs did not allow their BS farms to be inspected and controlled but with the advent of WASP and intervention of the COP even the international centers like IITA allow control of their fields which are under contract with the programme.

The Harmonized Regional Seed Regulation was tested when the deadly Ebola virus appeared in three ECOWAS countries (Guinea, Liberia and Sierra Leone) in 2014. The seed supply in these countries was dramatically disrupted and ECOWAS was charged to send seeds to these countries to help re-constitute their seed stock. The task was assigned to CORAF/WASP for execution. Seed was purchased from several countries in West Africa and shipped to the affected countries. In the process of doing this, the procurement, certification services and labelling, packaging, transport and border control exigencies were all observed, which permitted the shipment of 4,380 MT of seed to travel across several countries to farmers in Guinea, Liberia and Sierra Leone (The Ebola Initiative, 2015).

The MTE team finds: In ECOWAS, it is common to have regional protocols adopted at the level of the Heads of State that are not adopted or ratified by the member countries. It is also common to see protocols adopted or ratified that are not implemented - only because the member countries did not develop the accompanying regulations to facilitate implementation of the protocol. Fortunately, The Harmonized Regional Seed Regulation was accompanied by the WASP for 5 years, between 2012 and 2017.

The Regulation was adopted by ECOWAS and UEMOA in 2008 and 2009, respectively. Until the start of WASP in 2013, the rate of implementation by the member states was at 41%. In 2016, after three years of WASP, the rate of implementation reached 91%. The success can be attributed to the measures taken by INSAH and members of Seed Policy Task Force (SPTF), in accompanying the seed services of all 17 countries and providing enough backstopping to them.

The Regulation is now in vigour in most of the sub-region. The Regulation, in its Article 88 says that it shall enter into force upon its publication in the official journal of ECOWAS and those of the member states. At the time of the MTE, 12 countries had published the regulation in their official journals and ECOWAS too had published it in its official journal. For the remaining countries, it will require more diplomacy and tact to get the Regulation published. A Tri-partite Agreement between the regional bodies will still be necessary to sign, although it is not contingent on it, because without it can lead to unforeseen blockages as we move forward in the ECOWAS-UEMOA-CILSS space.

Those who received training are highly appreciative of this role of WASP. Everywhere the MTE team visited the beneficiaries express themselves and argued repeatedly that this is one of the major achievements of WASP and it should be continued. However, while the training is good for those fortunate to benefit, there is a big gap in the number of inspectors to control the seed farms. The Regulations require that seed farms be visited 4 times in a cycle and when you have more than 200 of them spread out in a wide geographical area with limited staff and poor mobility then there is problem. In

Ghana, PPRSD does only one visit per cycle; in Senegal, the DRDR is doing two visits per cycle. In Nigeria, the NSC does three visits per cycle. This is inadequate because admixtures and off-types cannot be detected when the visits are not frequent. The risk is that the quality of Foundation Seed or Certified Seed is compromised. The farmers get cheated and they do not get value for money and the yields are below expectation. In the long run, it is the whole improved seed system that will lose credibility in the eyes of the farmers and risks being rejected. ECOWAS will need to guard against this as the seed industry is moving forward.

In just the north of Senegal, private controllers are trained by a retiree of the DRDR and they inspect and certify the seed farms for a fee. The use of the private sector as in the case of Senegal is a good idea and can be scaled-up to other regions of the same country and in other countries.

In conclusion, according to ECOWAS and the UEMOA Directors of Agriculture, WASP has been essential for countries implementing the ECOWAS Regional Seed Regulation (Regulation C/REG.4/05/2008 on Harmonization of the Rules Governing Quality Control, Certification, and Marketing of Plant Seeds and Seedlings) in the ECOWAS Region; (A.S. Traore and H. Seyni, Evaluation Interview 2016). WASP has been the driving force in putting seed policy at the forefront of the ECOWAS countries' agricultural agenda.

If ECOWAS had adopted the Harmonized Regional Seed Regulation and just left it at that, it would almost certainly still not be implemented today. Thanks to WASP, the country members of ECOWAS received the necessary support to kick-start implementation of the regulations. The majority of member countries are in compliance with the Regulation.

There is still much to do. The control, certification and quality assurance services are far from where they need to be for an efficient and viable seed system in West Africa (plus Mauritania and Chad). The emerging private sector can be trained in seed control and certification to fill the void resulting from an inadequate number of government controllers.

The MTE team recommends:

- R1.** ECOWAS should maintain CORAF leadership in implementing WASP. The MTE found that CORAF is an effective host organization for WASP. WASP is on track to achieve its objectives. Any delays being experienced are not significantly hampering its performance.
- R2.** ECOWAS-UEMOA-CILSS should sign, in near future, a Tri-partite Agreement to allow Mauritania and Chad to publish the Regulation in their official journal and have the Regulation enter in vigour in these two countries.
- R3.** In the remaining period of USAID support (11 months), WASP should improve the reinforcement of capacity of national organizations in charge of seed quality control and seed certification. Beyond USAID support to WASP, ECOWAS and CORAF should find a more sustainable approach with countries to ensure the reinforcement of capacity of national organizations in charge of seed quality control and seed certification through greater involvement of the private sector (for example, scale-up of the North Senegal experience in training private controllers).
- R4.** UEMOA Commission should sign the acknowledgement page of the regional seed catalogue to make it an official document and allow for it to be uploaded onto the WASIX website.

6.1.2. Dependency between CORAF and WASP

- ***What is the link and dependency between CORAF and WASP? For example, please describe the types/amounts of technical support CORAF provides to the WASP team, and vice versa.***

WASP is the second regional project where USAID is supporting the seed sector in West Africa. USAID supported an earlier project called the West African Seed Alliance (WASA) between 2006 and 2011. For leadership and “ownership”, CORAF was proposed by ECOWAS and its partners as the Implementing Partner (IP) for the WASP. The regional link between CORAF and WASP, and national linkage between WASP and WAAPP have been beneficial. To save costs and enhance efficiency, WASP relies on CORAF and WAAPP for administrative coverage because it does not have the infrastructure. Both CORAF and WAAPP are benefitting from seed expertise of WASP.

In the institutional framework, WASP is nested within CORAF at the regional level; in the Directorate of Research and Innovations, while at national level, WASP is lodged within WAAPP. CORAF has the regional legitimacy which allows WASP to enjoy support from ECOWAS, UEMOA and CILSS. As a result, ECOWAS requested and supported the WASP to launch ASIWA and COASem.

The synergy noted during the various interviews between WAAPP and WASP in terms of WASP benefitting from WAAPP facilities justifies this type of relationship (interviews of WASP and WAAPP coordinators in Senegal, Mali, Ghana and Nigeria). However, there seems to be some shortfall in the visibility and “branding” of WASP. While WAAPP has bigger budget, both projects have their communication approach. In some countries (Mali, Nigeria), MOA officials knew more about WAAPP than WASP, but the commercial seed producers clearly knew what WASP was.

WASP personnel invariably contribute some of their time to CORAF activities. The most staggering example was the M&E specialist recruited by WASP who spent up to 30% of his time helping CORAF develop its M&E strategic framework. WASP also provided M&E capacity by strengthening the capacity of other CORAF partners, such as the Multi-Donor Trust Fund (MDTF) and the Staple Crops Program.

For any issue dealing with seed, CORAF referred generally to the WASP COP. Both the WASP COP and Seed Policy and Advocacy Officer backstop CORAF on seed related matters. The CORAF Governing Board, following ECOWAS request, tasked WASP with managing the PAPROSEM (US\$2 million) and the Ebola Initiative (US\$3 million).

Both the WASP seed production specialist and seed agri-business specialist contribute to reinforce CORAF’s work on seed. Other WASP staff contribute in CORAF’s administrative exercises. In addition, the seven national seed specialists recruited by WASP also contribute to CORAF (and WAAPP) activities up to 40% of their time.

Occasionally, there are bottlenecks and operational difficulties. Interviews in Dakar and Bamako as well as the WASP 2015 Annual Report show concerns on slow disbursement of funds from USAID to the final beneficiaries. In Nigeria, the National Seed Specialist had not been paid his salary for two months. In Mali, there was slow processing of WASP financial reporting, as the financial controller of WAAPP gave priority to processing WAAPP financial reports.

In the programmatic framework, the WASP objectives align perfectly with those of CORAF (Table 4). The four Intermediate results (IRs) of WASP relate to the four strategic objectives of CORAF. This alignment was easy to demonstrate because WASP was not seen as a parallel program of CORAF, but rather an integral part. CORAF had to adjust slightly its results matrix to accommodate WASP. When WASP was tasked with the Rice Offensive Project, Up-Scaling Rice, funded by USAID, CORAF had to add a fifth objective on development and use of technologies. A series of stakeholders’ consultations raised the need to increase capacity and to include use of new technologies.

Table 5. Alignment of WASP and CORAF objectives

CORAF/WECARD	WASP
CORAF/WECARD Overall Goal: High broad-based agricultural growth sustainably established in West and Central Africa (WCA)	
CORAF/WECARD Specific Objective Broad-based agricultural productivity, competitiveness and markets sustainably improved for target groups in WCA	WASP Overall Goal Sustainable improvement of agricultural productivity
CORAF/WECARD RESULTS	WASP RESULTS
(4) Demand for agricultural knowledge from target clients facilitated and met	(1) Alliance for Seed Industry for WA effectively coordinated and sustained.
(3) Sub-regional agricultural research system strengthened and coordinated	
(2) Increased uptake of strategic decision-making options for policy, institutions and markets	(2) ECOWAS-UEMOA-CILSS Seed Regulation implemented.
(3) Sub-regional agricultural research system strengthened and coordinated	
(1) Increased use of appropriate technologies and innovations in WCA	(3) Production and supply of breeder seeds of new and climate-smart crop varieties increased
(3) Sub-regional agricultural research system strengthened and coordinated	
(2) Increased uptake of strategic decision-making options for policy, institutions and markets.	(4) Production and marketing of foundation and certified seeds of new and climate-smart crop varieties increased
(3) Sub-regional agricultural research system strengthened and coordinated	
(5) Result delivery effectively managed by Secretariat	Monitoring, Evaluation and Learning Systems Enhanced
(3) Sub-regional agricultural research system strengthened and coordinated	

The MTE team finds: The host relationship is very beneficial to both CORAF and WASP. WASP did not have to hire a complete project management unit because CORAF provided that and on the other hand CORAF did not have to hire new seed specialists.

CORAF provides governance and oversight to WASP. The AWPB of WASP is reviewed by the CORAF Scientific and Technical Committee thus providing WASP with good governance. In addition, the WASP COP participates at the Annual Board of Governors meetings and the Bi-Annual General Assembly.

CORAF provides administrative and financial service to WASP. The offices occupied by WASP were rented by CORAF and all the recruitment of the personnel is done according to the Personal Statutes of CORAF. In addition, all the financial transactions: procurement, budget executions, banking and accounting of WASP resources are conducted according to the administrative, accounting and audit procedures manuals of CORAF.

The signatories to WASP accounts are only CORAF management at the regional level and only WAAPP management at the national levels. When signatories were away, no payment could be made even by WASP managers at the regional level, nor by the Seed Specialists at the national level; even though budgets and spending had been previously approved. This also explains delays of WASP payments to private companies through WAAPP at the national level – and CORAF at the regional level. A solution

can be found, for example, if the COP of WASP becomes a signatory to the bank accounts. It would be possible then to access the funds when all the senior management of CORAF travel and there are WASP activities to support.

CORAF provides technical support to WASP. Since WASP does not have a position for a Gender Specialist and CORAF has one already in position, she gives support to WASP on issues relating to gender.

CORAF provides visibility and credibility to WASP, because CORAF has a regional mandate covering West and Central Africa and because CORAF is a strategic partner with ECOWAS, UEMOA and CILSS, WASP, by being imbedded in CORAF gets a lot of visibility and legitimacy from the sub-region.

On the other hand, WASP provided technical support to CORAF through support provided by the professional staff recruited by WASP. For example, the COP who is a seed specialist in his own right doubles up as a seed expert for CORAF. The same can be said for the Seed Production, Seed Policy & Advocacy and Seed Agri-business Specialists who work for WASP but spent up to 30% of their time supporting CORAF.

WASP provided managerial support to CORAF by way of the WASP-recruited expert helping CORAF to develop its own M&E System. This occurred at a critical moment when CORAF was losing credibility in front of some donors because of lack of an M&E system. UKAID and AUSAID dropped out as donors to CORAF because of failure to track the performance indicators.

WASP executed and is implementing CORAF activities relating to seed. For example, the Ebola Initiative was a CORAF activity that was assigned to WASP to execute. The countries affected by the Ebola Virus outbreak (Guinea Conakry, Liberia & Sierra Leone) received 4380 MT of improved seed mobilized from several countries and transported to them over land. This was major feat that was achieved.

In conclusion, the inter-dependency between CORAF and WASP was scrutinized to determine if WASP could have been better placed elsewhere other than with CORAF. The findings show that the relationship is a symbiotic (mutually beneficial) one and that we couldn't identify any other suitable alternative. The hosting of WASP with CORAF is mutually beneficial to both. CORAF provides administrative, technical and governance support, on one hand, and WASP provides technical and managerial support. The relationship is working and is largely positive. Both sides including the managers desire to maintain it.

The only issue mentioned by WASP management is delays in disbursement of funds to WASP recipient partners. It was clear to us that CORAF did not have any plans on how to overcome this problem. This is a minor irritation in the relationship that can be fixed easily. A simple suggestion is to have the WASP COP as one of the signatories to the CORAF bank accounts.

The MTE Team recommends:

- R1.** Given the above, the MTE finds that the CORAF is an effective host to WASP. WASP is on track to achieve its objectives and any delays being experienced are not hampering its performance. ECOWAS should maintain CORAF leadership in implementing WASP.
- R2.** The WASP program should be maintained within CORAF with improved financial and administrative procedures (giving responsibility in fund disbursement to the WASP COP at regional level and Seed Specialist at national). For example: For funds release, signatories could be established on "A" and "B" levels, so an A and B can sign off, never just a B and B, and that the WASP COP and National Seed Specialist be assigned as a "B" level signatory.
- R3.** CORAF needs to define a strong portfolio management system to ensure that all programs including WASP will continue to be implemented efficiently at any time of their life cycle, i.e. winding down of WAAPP activities before WASP ends, may threaten all WASP activities in the countries, including the Seed Specialist.

6.2. WASP Effectiveness and Success

6.2.1. WASP Achievements to date

- *How successful has the WASP activity been in meeting its planned targets? If certain activity components have not been successful, please explain why (incorrect assumptions, programmatic issues such as lack of attention to gender/youth integration into the seed sector or lack of attention to fertilizer, private sector issues, staffing issues, etc.). What are the areas of WASP performance, if any, that require USAID attention?*

In August 2012, USAID/WA awarded ECOWAS a five-year Cooperative Agreement (C.A.) AID-624-A-12-00007 of US\$ 9 million for ECOWAS member countries to support implementation of the West Africa Seed Program (WASP). Through a competitive bidding, CORAF was awarded the program to implement on behalf of ECOWAS. A Chief of Party (COP) was recruited by CORAF to assume the leadership of WASP and a team of specialists were recruited to support the COP.

The program description document attached to the C.A. AID-624-A-12-00007, and the FY 2013, FY 2014, and FY 2015 work plans, performance reports, and performance management plan (PMP), among other documents, state the results that WASP aims to achieve. The highest level result WASP management is held accountable for is increased availability of quality seed. The half year FY 2016 report mentions, as shown in the Results Framework (RF) (Figure.1), four sub-level results (R) judged necessary and sufficient to achieve this highest level result.

Under R1, R2, R3, and R4 there are ten lower-level results, including those taking into account dimensions relating to the technical capacity of the NASTAs, foundation and certified seed production for rice, and the rice seed up-scale program.

WASP PMP Latest final, as of October 2013, (page 5) provides details on alignment of the WASP RF with the USAID/WA/Regional Economic Growth Office (REGO) RF and shows relevance and the extent to which achievements under WASP will be contributing to the USAID/WA/REGO objectives (Table 6.). The document shows consistency between the USAID WA REGO RF and WASP RF, which drew from and customized result statements of the USAID WA REGO RF to specify WASP areas of intervention and contributions.

Figure 1. WASP Results Framework.

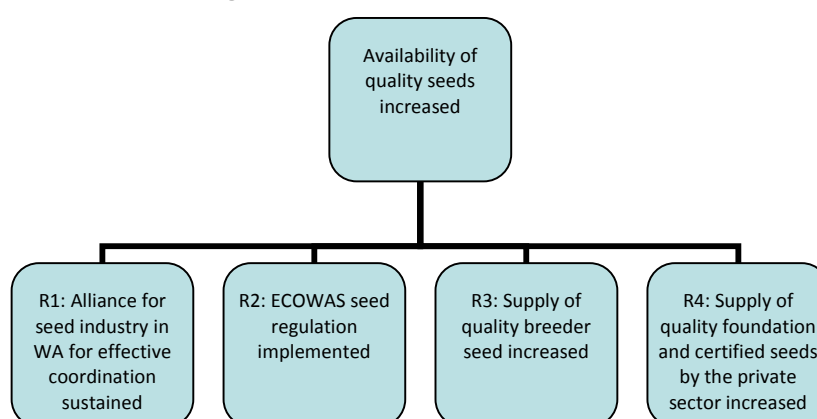


Table 6. USAID WA REGO Objectives and WASP RF results' statements

USAID/WA/EGO RF result statement	WASP customized RF statement
Utilization of best practices and technologies increased	Availability of quality improved seeds increased
More integrated and coordinated regional systems	Alliance for seed industry in WA for effective coordination strengthened
Increase harmonization of targeted regional policies and regulations	ECOWAS seed regulation implemented
Access to inputs increased	Supply of quality breeder seeds increased
	Supply of quality foundation and certified seeds by the private sector increased

Source: WASP PMP Latest final, as of October 2013, (page 5).

Accomplishments of WASP to Date: WASP took necessary steps to track progress on implementation, and as the Program matures the set targets are, overall, met.

To report on the progress of implementation WASP prepared work plans and a PMP among other documents, which all state the indicators selected to track progress. The WASP PMP approved by USAID/WA lists seven agreed upon indicators: five outcome and two output indicators. All seven indicators (in bold, Table 12.) are FtF indicators. The following three WASP custom indicators drawn from the WASP PMP dated October 2013 (page 14) are worth adding to better tell the story of WASP:

1. Amount of improved seed produced in USG-assisted countries;
2. Number of ECOWAS Member States that have published the ECOWAS seed regulation in their official gazette; and
3. Percent of individuals who have received USG-supported short-term agricultural sector productivity or food security training applying learned concepts.

Progress is assessed against the ten WASP indicators comprising four outcome indicators and six output indicators. Because no baseline was provided, comparison against baseline is not possible. However, for the standard FtF indicators, FtF monitoring and evaluation guidance recommends entering zero as the baseline for indicators for which no similar activity was funded by USAID previously. Accordingly, there is room for comparison between baseline and actual data for standard FtF indicators.

There are indicators for which targets set in the work plans are different from those in the WASP PMP approved by USAID WA and/or the performance indicator tracking table (PITT) of the annual reports. Discussions with the former WASP M&E Specialist suggest that the changes were due to taking into account new developments (rice initiative introduced to WASP, which increased the budget from \$9 to \$12 million) during the fiscal year. USAID annual reporting guidance requires sticking to the targets set for the year under review, whereas the out-year targets can be revised. Additionally, by setting the 2015 targets lower than the 2014 actual data for percent applying new skills and number of recipients of USG assistance, WASP seemed to be too conservative.

Program Objective: Availability of Quality Seed Increased

To track achievements under its Program Objective, *Availability of Quality Seed Increased*, WASP selected the following outcome indicators: “Amount of improved Breeder Seed produced in USG-assisted countries (MT)” and “Number of hectares under improved technologies or management practices as a result of USG assistance” (See table 8.).

For the Breeder Seed production, CORAF signed agreements with both international and national research centers and institutions (CNRA/ISRA of Senegal, CSIR-CRI and CSIR-SARI of Ghana, and IPR

of Mali, NCRI and IAR&T of Nigeria) and Africa Rice Center and IITA). Production of improved seed (Breeder, Foundation and Certified Seed) has increased since WASP started. The goal of the program is to reach 25% coverage of needs for improved seeds in West Africa in six crops by the year 2017. In 2012, the level of coverage was at 12.5% and at the end of 2015 this figure has reached 21.2%.

The production of maize Breeder Seeds increased from 9.6 MT (2014) to 16.6 MT (2015), a 73.6% increase. The production of millet/sorghum breeder seeds increased from 4.3 MT (2014) to 15.7 MT (2015). The production of rice Breeder Seeds increased from 38.7 MT (2014) to 44.3 MT (2015), a 14.5% increase. Such a slight increase contrasts with the 184.7% increase of hectares under rice breeder seed cultivation (from 31.2 ha in 2014 to 67.9 ha in 2015). The area under sorghum/millet Breeder Seed cultivation totaled 34.2 hectares in 2015, and increased by 82.7% over the hectares in 2014. The hectares under maize breeder seed cultivation increased from 29.8 ha (2014) to 47.2 ha (2015).

Theoretically, 1 (one) kg of maize Breeder Seed can plant 500 square meters of area; 1 (one) kg of rice BS can plant 200 sqm. & 1 (one) kg of sorghum/millet BS can plant 1000 sqm. Therefore, to produce Foundation Seed, 16.6 MT of maize BS can plant 829 ha; 44.34 MT of rice BS can plant 887 ha; and 15.66 MT of Sorghum/millet BS can plant 1,566 ha. Eventually, to produce Certified Seed, these can plant 62,000 ha; 35,472 ha; and 125,300 ha of maize, rice and sorghum/millet, respectively.

Table 7. Seed Production of Maize, Sorghum and Rice.

Crops	Breeder Seeds				Foundation Seeds in 2015		Projected Certified Seeds (MT)	Projected Area (ha) to Cover on Farmers' Fields	Projected Grain Production (MT)
	2014		2015						
	Ha	MT	Ha	MT	Ha	MT			
Maize	29.8	9.55	47.15	16.58	422	679	54,320	2,172,800	4,345,600
Sorghum	18.7	4.3	34.16	15.66	143	21	2,100	210,000	210,000
Rice	31.15	38.74	67.85	44.34	1,194	4,642	232,100	4,642,000	11,605,000

Source: WASP data, 2016

As there are only two valid data points, any time series analysis is challenging. Assuming that the breeder seed-related data of the year under review correlate with the foundation seed-related data of the previous year, the PITT of the FY 2014 and 2015 annual reports (See table 7.) also show the subsequent certified seeds and grain productions. The multipliers are derived from the WASP projection data on page 25 of their FY 2014 annual report. Overall, more quality seeds are made available for the private seed sector and the consumers have higher potential supply.

Table 8. Targets Achieved from Work Plans: 2013, 2104, 2015.

Indicator	2013			2014			2015		
	Target	Actual	% achieved	Target	Actual	% achieved	Target	Actual	% achieved
Objective: Availability of quality seeds increased									
Amount of improved breeder seed produced in USG-assisted countries (MT)- Outcome	N/A	N/A	N/A	88	52,59	59,8%	80	76,58	95,7%
# of hectares under improved technologies or management practices as a result of USG assistance - Outcome	58	41	70,7%	49	55	112%	77	113	146,8%

Source: Table is derived from the WASP approved PMP and PITT attached to annual reports.

R1: Alliance for Seed Industry in WA for Effective Coordination Sustained

No indicator identified to track this Result.

WASP has not yet selected any indicator to track achievements under its Program Result 1, *Alliance for Seed Industry in WA for Effective Coordination Sustained*. Benchmarks for tracking the performance of ASIWA remain to be formulated. The task was included in the WASP FY2016 work plan, but was never executed due to departure of the WASP M&E Specialist. A new M&E Specialist is on board and is scheduled to take corrective actions. The SOW of this evaluation lists on page 9, indicators such as “number of institutions/organizations in the ASWA”, “Diversity of institutions/organizations in the ASIWA”, and “Number of governance tools and communication tools produced for effective management of the ASIWA”. The new M&E Specialist may build on those indicators. We are making a recommendation for WASP and the new M&E Specialist to immediately develop the benchmarks for tracking the ASIWA.

In the meantime, at the regional level, an Alliance for Seed Industries in West Africa (ASIWA) was launched in August 2015 in Abidjan, Cote d’Ivoire. ASIWA is an innovation of WASP and as such, is not provided for in the Harmonized Regional Seed Regulation. Participants in the launching were representatives from the governments, seed companies, growers, cooperatives, regional organizations and international seed companies. Twenty-five Stakeholder Commitment forms were signed and submitted by national, regional and international organizations. The launching brought together key seed companies in the region to plan and coordinate their activities better as the private sector.

To facilitate the trading in seeds within and outside of the ECOWAS region WASP has developed an electronic platform called West Africa Seeds Information Exchange (WASIX). At the launching of ASIWA, WASP trained participants to use the WASIX Electronic Platform Management.

Trainings on the use of the WASIX were already provided in Burkina Faso and Mali in October 2015. Over the period March 14, 2015 – August 25, 2015, the number of producers registered increased from 986 to 1275; the number of visitors on the website increased by 81.1%, from 4432 to 8024; the quantity of certified maize seeds on the website increased by 328.2%, from 4024 MT to 17,231 MT; and the quantity of rice, maize, and sorghum certified seeds on the website increased from 19,835 MT to 33,776 MT, a 70.3% increase.

R2: ECOWAS Seed Regulation Implemented (Table 9.)

To track achievements under its Program Result 2, *ECOWAS seed regulation implemented*, WASP selected the following outcome indicators: “Number of Policies, Regulation, and/or Administrative Procedures in each of the following stages of development as a result of USG assistance in each case: (Stage 1/2/3/4/5)”; and “Number of countries with ECOWAS seed policy published in official gazettes”.

In 2008, ECOWAS adopted the Harmonized Regional Seed Regulation. The Director of the Agriculture Department of ECOWAS reported that (see Section 6.1.1.), in ECOWAS, it is common to have regional protocols adopted at the level of the Heads of State that are not adopted or ratified by the member countries. UEMOA adopted the regulations in 2009, whereas CILSS has not yet adopted it. CILSS lagging behind prevents Chad and Mauritania from publishing the Regional Seed Regulation in their national gazettes.

CORAF and CILSS signed an agreement entrusting CILSS with implementation of activities under Intermediate Result 2 (IR2). To this end, WASP provided funds to INSAH, which leads Result Two-related activities. INSAH reported to the MTE team that the funds they receive are neither timely, nor adequate to the geographic coverage of their interventions (17 countries instead of the 7 WASP-focused countries). To smoothly implement the harmonized rules governing seed quality control and certification, and marketing of plant seeds and seedlings, an ECOWAS-UEMOA-CILSS Seed Policy Task Force (SPTF) was formed to improve understanding of the regional harmonized seed regulation by traveling to

countries and training/coaching relevant seed stakeholders in variety registration and release, seed quality control and certification, and seed import/export rules.

WASP and INSAH represent ECOWAS and CILSS, respectively in the SPTF. The Task Force has facilitated the ECOWAS member countries to adopt and publish the Harmonized Regional Seed Regulation in their official journals and align their national regulations to that of the ECOWAS. To date, 12 of 17 countries have published the ECOWAS regulations in their official gazettes. Ghana has not done it and is the only WASP-focus country not complying. The Ghanaian Ministry of Food and Agriculture (MOFA) officials reported that the Ghanaian Cabinet examined and approved the request of the MOFA for ratification of the Harmonized Regional Seed Regulation by the Parliament. Seven of Seventeen countries have taken steps to adapt their procedural manuals relating to phytosanitary certification. The adaptation of the procedural manual seems to be challenging for some countries. Two WASP focus countries, Ghana and Niger, have not adapted their procedural manuals relating to phytosanitary certification. For Ghana, non-compliance stems from the rigidity of the legal system, which is reluctant to implement before revising its existing laws. Additionally, Ghana has not adapted its procedural manual on phytosanitary certification (comprising the seed-related import/export procedural manual) because the manual is not yet translated from French to English.

For Niger, non-adaptation relates to understanding of the processes. The SPTF developed a Concept Note (CN) to assist the countries in their harmonization efforts to the ECOWAS Regulation. The CN involves 5 steps which are cumbersome and take time with multiple actors. It involves setting-up Working Groups, organization of a validation workshop. Submission of draft pieces of legislation for the Minister of Agriculture. Signature of the Acts and implementation of the Acts. This explains the challenges faced by the countries.

A total of 1,330 seed varieties have been registered across the 17 countries. This process is completed and awaits signature of the UEMOA Commissioner of Agriculture for it to become official. A Variety Release Committee is set up in each country and a procedures manual for variety registration into the national catalogues has been developed.

To re-constitute seed stocks in the EBOLA-affected countries, WASP not only facilitated the shipment of 4,380 MT of seed to travel across several countries to farmers in Guinea, Liberia and Sierra Leone, but also tested the regional seed regulation in terms of procurement, certification services and labeling, packaging, and transport and border control exigencies.

According to the WASP Chief of Party (May 31, 2016 interview), the overall implementation rate of the ECOWAS seed regulation increased from 41% (2013) to 91% (2016), a 121% increase within a three-year period. The implementation rate takes into account, not only the publication in the official gazette; but also, the review of the regulatory framework, the adaptation of procedural manuals, and the strengthening of capacities. COASem was established in October 2015 and, once operational, it will further help to advance the implementation of the Regional Seed Regulation (See table 9).

Table 9. Seed Policy and Regulations Implementation Project's Indicators Status

Indicator	2013			2014			2015		
	Target	Actual	% achieved	Target	Actual	% achieved	Target	Actual	% achieved
R2: ECOWAS Seed Regulation Implemented									
# of Policies, Regulation, and/or Administrative Procedures in each of the following stages of development as a result of USG assistance in each case: (Stage 1/2/3/4/5) - Output (phase 1) and Outcome (phases 2,3,4, and 5)	4	2	50%	8	N/A	N/A	4	2	50%

Indicator	2013			2014			2015		
	Target	Actual	% achieved	Target	Actual	% achieved	Target	Actual	% achieved
# of countries with ECOWAS seed policy published in official gazettes	6	7	116.7%	12	11	91,7%	16	12	75%

Source: Table is derived from the WASP approved PMP and IPTT attached to annual reports.

R3: Supply of Quality Breeder Seed Increased (Table 10.)

To track achievements under its Program Result Three, Supply of Quality Breeder Seed Increased, WASP selected one indicator: “Number of individuals who have received USG supported short-term agricultural sector productivity or food security training”.

The number of trainees in Breeder Seed production totaled 221 in 2013, 362 in 2014, and 323 in 2015 to meet the capacity building/strengthening needs. WASP supported trainings of field staff and technicians. In total, against a target of 788 individuals, out of the 1,418 seed experts in the WASP-focused countries, the knowledge and skills of 851 (60%), including 206 women, were increased in seed laboratory practices, seed production and processing, variety maintenance, Breeder Seed production coordination and planning. But there is still a dearth of well-qualified graduate level and PhD trained seed scientists, breeders and seed specialists available. The NARIs have insufficient trained breeders, which also impedes the development of the private seed industry. When asked to cite activities which were planned and rescheduled/postponed, the WASP COP mentioned the Master of Science (MSc) degree training plan. The rationale is the long negotiations of heavy overhead charges (e.g., IOWA State University asks for 26% for overhead) unaffordable to WASP. Such lengthy discussions underway with US universities have not yet led to signing of any agreement. Such a shortfall, when cross-checked with Ghanaian, Malian and Senegalese public officials’ growing concerns about the number of Breeder Seed scientists suggests to find solutions in the short-run. There are very limited numbers of breeders available because those retiring are not replaced at a commensurate level. Alternatively, and/or in complement to US universities, the West African universities should be considered because they have comparative advantages such as getting students to work on local crops and retaining the graduates in the Sub-Region.

WASP took steps to overcome start-up delays and understaffing and to engage a wide range of National Agriculture Research Institutes (NARIs) and the Consultative Group on International Agricultural Research Centers (CGIARs): ICRISAT, AfricaRice Center, and IITA, through Letters of Agreement (LOAs) and Public-Private Partnerships (PPPs). WASP contributed to building capacity of the NARIs of the 7 target countries by procuring and distributing four sets of laboratory & processing equipment for NARIs in Ghana, Niger, Nigeria and Burkina Faso. None of the laboratories is accredited to ISTA so far. However, Ghana and Nigeria reported that their central laboratories, one each, expects to be accredited soon.

There is more and more confidence by partners in the use of these recommended, harmonized steps to follow to produce Breeder Seed. Five OPVs and three hybrids of maize breeder seed from IITA were taken up by CSIR–CRI and INRAN respectively. As a result, the supply of improved breeder seeds has increased from 41 MT (2013), to 54.59 MT (2014) to 77.8 MT (2015). In 2015, WASP supported 37% of the breeder seed supply in seven countries for the benefit of 150 enterprises. These LOAs were signed by WASP, CGIARs and a selected NARIs in Ghana, Niger, and Senegal. More LOAs were signed with public and private institutions in Mali, Niger, Nigeria, Ghana, Benin and Burkina Faso.

In the Inception Report we recalled the problems constraining agricultural production in West Africa include lack of access to improved seed by farmers. We recalled that the region was supplying 182,035 MT, or, 13,6% of needs back in 2013. The potential being 1, 333, 437 MT. If in 2017 the region will be capable of supplying more Certified Seed as a result of increased availability of Breeder Seed it means progress is being made towards increasing production and productivity of cereals in WA. It also means

more money for the seed growers and other actors in the seed value chain. The value of potential need for CS is at \$1,713,265,538 compared to the value of the actual supply which is \$214,593,885. So, an increase in supply of CS can fetch little more money for seed growers.

In Mali, during 2014/2015, WASP Mali facilitated a tripartite protocol agreement between the WASP/WAAPP, the Institut d'Économie Rural (IER) and the private sector. Ten thousand, eight hundred kilograms (10,800 kg) of Breeder Seed were produced from the six seed production contracts signed: five with IER on rice, and the sixth one on sorghum with l'Institut Polytechnique Rural (IPR/IFRA). Another agreement was signed (WASP/IER/Arc-En-Ciel) for the production of 150 kg of millet seed (4 varieties). These agreements are well intended but they contravene the provisions of the Harmonized Regional Seed Regulation. The production of Breeder Seed is entrusted to the NARIs and CGIARs. Article 22 (b) states that pre-basic seed (which is Breeder Seed) shall be produced directly by the breeder or his/her authorized agent. On the contrary, these tripartite agreements signed in Mali, assign the private sector (Agriplus S.A., Soprosa S.A. and Arc-En-Ciel S.A.) to produce Breeder Seed. *Between 2014/15 and 2015/16 Five thousand two hundred and fifty metric tons of Breeder Seed was produced across all the crops and WASP contributed 9.6% of Malian national seed need in the two years. It means that WASP is contributing to reducing the gap between supply and demand of improved seed in Mali. It means a several more thousands of hectares of improved seed will be planted in 2016 and 2017 which will translate into increased production and productivity in the future.*

In Nigeria, over the years 2013 to 2015, Breeder Seed production was assigned to the NCRI (rice), IAR&T (maize) and IITA (maize). NCRI produced 16 MT and 12.5 MT of rice in 2013/14 and 2014/15, respectively. IAR&T produced 3 MT, 3 MT and 1.8 MT of maize in 2013/14, 2014/15 and 2015/16, respectively. IITA produced 0.43 MT and 1.21 MT of maize in 2013/14 and 2014/15, respectively. (Aje, E. O. 2016 Evaluation Interview ppt). The 1.21 MT of maize Breeder Seed comprised of 19 parental inbred lines, hybrids and open-pollinated varieties (OPVs) to the Seed Association of Nigeria (SEEDAN). An additional amount of 2.98 MT of Breeder Seed of 48 lines (21 OPVs, 12 hybrids and 15 parental inbred lines) were provided to seven target countries for Foundation Seed production in 2016. The seeds of entries in the Regional Multiple Stress Tolerant Hybrid and Variety Trials were sent to Burkina Faso, Niger, Senegal and Togo for the 2016 regional trials. This shows exchange or free movement of agricultural goods between ECOWAS member states in consonance with the regional regulations. Remember that in the seed value chain, the availability of Breeder Seed is the weakest link because BS is produced in very small quantities and thus might take 1-2 years of multiplication to get enough material to pass onto private seed growers for Foundation Seed production. So, to have 5,250 kg of BS is no small feat especially when you're just getting started. Another benefit is the supply of improved genetic materials coming out of IITA is spreading into the region slowly but sure.

Another significant achievement of WASP is the extension of the Drought Tolerant Maize for Africa (DTMA) program, funded by the Bill & Melinda Gates Foundation, which was limited to only four countries (Benin, Ghana, Mali and Nigeria). With WASP support, the program is now distributing drought-tolerant maize germplasm to four drought-prone countries in the region (Burkina Faso, Niger, Senegal and Togo). Two thirds of WA is arid or semi-arid and so having drought tolerant varieties can ensure production during drought years and when there are intermittent droughts during a crop cycle. It also means the maize belt can be pushed further out from the humid zones increasing the area under production and bring better food security for millions of households.

The seed gap in Nigeria has narrowed between the years 2012 and 2015. By 2015 the rice and maize seed supplies cover 70% and 49% of needs, respectively. . In Nigeria, perhaps not, but in the rest of the region the need is still there. Nigeria alone contributes more than 70% of the improved seed coverage in WA. The rest of the countries would still need regional support to overcome the challenges affecting the seed industry in the respective countries.

In Senegal in 2013/14, 2014/15 and 2015/16, AfricaRice Center produced for the country 9 MT of rice Breeder Seed of the varieties Sahel 108 and Sahel 134. For 3 years in a row it produced 1.5 MT of each variety through WASP support to distribute within Senegal. During the same period, 2013/14, 2014/15 and 2015/16, the Institut Sénégalais de la Recherche Agronomique (ISRA) produced 112.48 MT, 139.98 MT and 88.85 MT, respectively of Breeder Seed (Lo, Mamadou, Rapport Annuel ISRA/CORAF WASP production semences pré-bases). Out of the 112.48 MT produced in 2013/14, WASP received 5.1 MT. The BS was given to private seed growers to multiply into Foundation Seed. This way, WASP, was contributing to bridging the gap between supply and demand of improved seed. It was mentioned earlier that BS availability is the biggest constraint in the value chain. More growers will enter into seed production and this will accelerate the process of satisfying the seed needs. Overall, Breeder Seed received by WASP was distributed to the private seed sector for production of Foundation Seeds which will be utilized to produce Certified Seeds in a subsequent year.

In Ghana, over the period 2013-15, the CSIR-SARI produced Breeder Seed of maize, rice and sorghum to the amounts of 6.3 MT, 12.3 MT and 5.7 MT, respectively. (S. K; Nutsugah, Wilson Dogbe, Haruna Alidu, Kenneth Opere, Solomon Gyan Ansah. May 19, 2016 Evaluation Interview). Field interviews suggest that international research centers and public research institutions have the monopoly of Breeder Seed production, mainly because the private sector does not fulfill all related requirements. In Ghana, Breeder Seed production by the private industry is currently not permitted.

The CGIARs and NARIs expressed their frustration about the uncertainties of determining how much Breeder Seed is needed by commercial Foundation Seed producers. Usually the requests were made at the last moment, during the on-set of the rains. The government and public institutions are confined mostly to the production of Breeder Seed and the private companies produce Foundation and Certified Seed. BS production is mostly a few thousand kilograms per country whilst FS and CS can total in the hundreds of thousands of kilograms. WASP thus organized training for NARI staff on a **Seed Forecasting Tool** (See Annex 5) it developed.

In Nigeria, we were shown evidence of utilization of the training. A seed planning workshop made projections up to 2020. After 2012 FS and CS production increased and by 2015 it reached 32.5% of requirements. Nigeria has projected its seed requirement figures between 2016 and 2020 for 8 different crops.

Table 10. Quality Breeder Seed Supply Status

Indicator	2013			2014			2015		
	Target	Actual	% achieved	Target	Actual	% achieved	Target	Actual	% achieved
IR3: Supply of Quality Breeder Seed Increased									
# of individuals who have received USG supported short-term agricultural sector productivity or food security training	180	269	149.4%	601	966	161%	1,015	1,132	111.5%

Source: Table is derived from the WASP approved PMP and PITT attached to annual reports

IR4: Supply of Quality Foundation and Certified Seed by Private Sector Increased (Table 11.)

In 2015, WASP supported 34% of the Foundation Seed supply by the private seed sector in the seven focus-countries. Five new rice varieties (ARICA³ 1 to 5) from AfricaRice Center are being promoted in

³ Advanced Rice for Africa

Burkina Faso, Nigeria and Senegal led by private seed enterprises. WASP contributed to increasing the expertise in Foundation Seed and Certified Seed production and marketing. Overall, WASP trained 527 individuals (404 men and 123 women) Quality Foundation and Certified Seed. It trained seed entrepreneurs in Burkina Faso, Mali, Niger, Nigeria and Senegal on Business Development Services. It trained representatives from Benin, Niger and Senegal on NASTA Management, Leadership and Advocacy. To facilitate the trading in seeds within and outside of the ECOWAS region WASP has developed an electronic platform called West Africa Seeds Information Exchange (WASIX). At the launching of ASIWA, WASP trained participants to use the WASIX Electronic Platform Management.

Trainings on the use of the WASIX were already provided in Burkina Faso and Mali in October 2015. Over the period March 14, 2015 – August 25, 2015, the number of producers registered increased from 986 to 1275; the number of visitors on the website increased by 81.1%, from 4432 to 8024; the quantity of certified maize seeds on the website increased by 328.2%, from 4024 MT to 17,231 MT; and the quantity of rice, maize, and sorghum certified seeds on the website increased from 19,835 MT to 33,776 MT, a 70.3% increase.

WASP supported the participation of NSTA members at AFSTA activities. Based on an LOA between CORAF and AFSTA three sets of office equipment were purchased for NASTAs in Benin, Burkina Faso and Ghana. WASP also helped AFSTA/WA to recruit a Regional Coordinator and sponsored six NSTA representatives from several countries to attend the Annual Congress of AFSTA in Harare, Zimbabwe. Thirty-five of the 52 target companies in Benin, Ghana, Mali, Niger, Nigeria and Senegal had their seed Business Plans formulated with the support of WASP Agri-business Specialist.

WASP contributed to strengthening the capacities of private sector and SMEs in Agribusiness Management. At least, 100 private enterprises (NASTAs, seed SMEs, seed cooperatives, and others) benefitted from quantities of Breeder Seed supplied by NARIs and CGIARs funded by WASP; 35 Business Plans were developed for seed enterprises; six of these entrepreneurs succeeded in gaining credit facilities from the banks as a result of the support they received from WASP; finally, five PPPs were developed in Ghana, Mali and Niger. Many others received different kinds of operational assistance to render their businesses successful (WASP FY 2015. Table 10 Annual Report).

WASP in Ghana, signed a letter of agreement (LOA) with the Grains and Legumes Development Board (GLDB) of the Ministry of Food and Agriculture (MOFA) to produce 3 tons of rice Foundation Seed from local rice varieties. Unable to produce the Foundation Seed, GLDB sub-contracted the production of the Foundation Seed to CSIR-SARI. This is another violation of the Harmonized Regional Seed Regulation. The production of Foundation Seed & Certified Seed is reserved for the private sector, therefore, the GLDB should not have sub-contracted to CSIR-SARI (the NARI) production of Foundation and Certified seed.

Table 11. Supply of High Value Foundation and Certified Seed

Indicator	2013			2014			2015		
	Target	Actual	% achieved	Target	Actual	% achieved	Target	Actual	% achieved
R4: Supply of quality foundation and certified seeds by the private sector increased									
# of food security private enterprises (for profit), producers' organizations, water users' associations, women's groups, trade and business associations, and CBOs receiving USG assistance	7	0	0%	7	77	1100%	72	151	209.7%

Indicator	2013			2014			2015		
	Target	Actual	% achieved	Target	Actual	% achieved	Target	Actual	% achieved
# of MSMEs, including farmers, receiving business development services from USG assisted sources -	18	0	0%	35	21	60%	35	33	94.3%
# of MSMEs, including farmers, receiving USG assistance to access loans -	18	0	0%	21	3	14%	14	2	14.3%
# of public-private partnerships formed as a result of FTF assistance -	3	1	33.3%	3	15	500%	36	29	80.6%
Percent of individuals who have received USG supported short-term agricultural sector productivity or food security training applying learned concepts	N/A	N/A	N/A	50	90	180%	50	90	180.0%

Source: Table is derived from the WASP approved PMP and PITT attached to annual reports

Table 12. Summary WASP Status Performance 1 August 2012 to 30 September 2015.

Indicator	% Achieved in FY2015	Status	Comment
Objective: Availability of quality seeds increased			
Amount of improved breeder seed produced in USG-assisted countries (ton)	95.7	Almost achieved	Deviation less than 10%. Additionally, there has been a steady increase of production over time.
Number of hectares under improved technologies or management practices as a result of USG assistance	146.8	Exceeded	Steady increase due expanded production of breeder, foundation, and certified seeds.
R1: Alliance for seed industry in WA for effective coordination sustained			
None	N/A	N/A	Need to Develop indicators to track Alliance related achievements.
R2: ECOWAS seed regulation implemented			
Numbers of Policies, Regulation, and/or Administrative Procedures in each of the following stages of development as a result of USG assistance in each case: (Stage 1/2/3/4/5)	50	Under achieved	At development stage 3 (presentation for legislation). Policy reforms usually take time.
Number of countries with ECOWAS seed policy published in official gazettes	75	Under achieved	Though the pace of publication is slow due to hindering external factors, the number of countries has steadily increased.
R3: Supply of quality breeder increased			
Number of individuals who have received USG supported short-term agricultural sector productivity or food security training	111.5	Achieved	Steady increase to meet high capacity building/strengthening needs.
R4: Supply of quality foundation and certified seeds by the private sector increased			
Number of food security private enterprises	210	Exceeded	Steady increase to meet high capacity

Indicator	% Achieved in FY2015	Status	Comment
(for profit), producers' organizations, water users' associations, women's groups, trade and business associations, and CBOs receiving USG assistance			building/strengthening needs.
Number of Micro-Small-Medium-Size-Enterprises (MSMEs), including farmers, receiving business development services from USG assisted sources	94.3	Almost achieved	Deviation less than 10%. Additionally, there has been a steady increase of trainees over time.
Number of MSMEs, including farmers, receiving USG assistance to access loans	14.3	Poorly achieved	Access to loan is challenging due to factors, including high and prohibitive interest rates.
Number of public-private partnerships formed as a result of FTF assistance	80.6	Under achieved	Though the pace of PPP formulation is slow due to factors beyond the WASP control, the number of PPP formed has steadily increased. WASP has served as catalyst.
Percent of individuals who have received USG supported short-term agricultural sector productivity or food security training applying learned concepts	180	Exceeded	Steady increase to meet high capacity building/strengthening needs

Source: Table is derived from the WASP approved PMP and PITT attached to FY 2015 annual report

Summary

The Program assumptions remain valid and additional ones are needed to integrate new developments

The assumptions set forth in the C.A. AID-624-A-12-00007 (page 29) are: (i) an alliance is the best mechanism for coordinating and attracting additional investment for the seed industry; and (ii) A favorable seed policy environment is a prerequisite for the growth of a viable seed industry in West Africa; most of the constraints facing the seed industry are best addressed through appropriate public-private partnerships (PPP) coupled with a regional policy approach.

Furthermore, based on MTE Team meetings with stakeholders the following needs emerged; a.) the need to invest in breeding climate smart varieties, b.) the need to develop contingency plans to cope with political instability, climate change effects, and human and plant disease epidemics. Discussions with the former M&E Specialist of WASP led to the suggestion to review the assumptions associated with the logic of the results framework.

There are factors which influenced negatively on achievements of WASP objectives

For the Breeder Seed production, both international and national research centers and institutions reported that the release of the funds by WASP has been a major setback. The delays in accessing the funds cause disruptions in the breeder seed production in the sense that purchase of inputs at the start of the rains is often not possible because the funds would arrive sometimes in the middle of the rainy season. The evidence-based requirements also make the whole fund disbursement processes cumbersome. *Additionally, the national research centers and institutions reported that their storage facilities are inadequate and the seed processing equipment they have are obsolete.*

A growing concern expressed by public officials is the working conditions of civil servants in charge of field inspection. All relevant respondents reported that the public offices in charge of inspection are understaffed; their newly recruited personnel need to be trained to replace ageing staff who are close to retirement; and do not have adequate harvesting, processing, and storage equipment. Inspection field-based staff do not have sufficient logistics and other resources (e.g., gasoline to drive to fields) to fulfill their roles and responsibilities. Additionally, national level inspectors do less than the recommended four

yearly inspection visits. The MTE Team was informed of local solutions such as charging the beneficiaries of inspection activities performed by civil servants (Ghana and Mali), and entrusting private sector with inspection of fields (in the Northern Senegal, a GIE performs inspection of fields for foundation and certified seeds).

The supply of quality foundation and certified seeds by the private sector is challenged by access to loan. All private seed sector representatives the MTE team met reported that they have faced with high bureaucracy and interest rates. Bureaucracy tends to delay the processing of loan applications, which are not always bankable due to inability of loan requestors to prepare applications of good quality. Interest rates are so high that they are prohibitive and unaffordable to businesses.

Areas of WASP performance that require USAID attention

Strengthening seed control, certification and quality assurance services;

1. Implementation of activities in the ASIWA and COASem action plans –Need to develop and implement the bench-mark tracking system provided for in the FY16 WP;
2. Take necessary actions to make WASIX functional and accessible.
3. Strengthening achievements in production of breeder, foundation and certified seed to satisfy the regional demand. The velocity of varietal turnover is very low in West Africa, meaning the average age of released varieties is often 20 years or more. This weighted average is moving in the wrong direction. For a WASP follow up, it would be useful to track this indicator that would be integrated in FTF 2.0. A partial explanation is that the countries stopped or drastically reduced funding for agricultural research after WB Structural Adjustment Programmes of the middle 1980s. As a result, there was a gradual run-down of the NARIs including departure of scientists and specialists which resulted in stagnation of varietal development. With the now donor-funded programs (WAAPP, WASP and PASS) significant investments are taking place in capacity building of the NARIs throughout the region. Thus, this trend has been reversed in recent years. Breeders are being trained at Ph. D. level with WAAPP and AGRA funding. AGRA alone has trained Over 200 MSc and Ph.Ds in plant breeding, seed scientists and agronomists (AGRA Progress Report 2007-2014)

The MTE Team concludes that, WASP well achieves its objectives and demonstrated accomplishments by developing a results framework and selecting indicators in consonance with USAID/WA/REGO objectives. The WASP RF drew from and customized result statements of the USAID WA REGO RF to specify WASP areas of intervention and contributions.

A limited number of civil servants to assure quality control and the lack of adequate equipment weaken the quality assurance and, in the long run, can jeopardize the availability of quality breeder seeds if the public sector continues holding monopoly of inspection of breeder seed fields. The involvement of the private sector in field-based efforts to inspect, sample, and analyze quality of foundation seed is worth fostering and duplicating.

WASP succeeded in bringing together seed companies, agro-dealers, grain buyers, private sector organizations, agriculture research centers and institutions, regional organizations, public agencies, and donors. To track achievements under its Program Result One, *Alliance for Seed Industry in WA for Effective Coordination Sustained*, in addition to indicators listed on page 9 of the terms of reference of this evaluation, it would be worth considering indicators relating to meeting holding, meeting record, meeting minutes publicly posting, share of ASIWA own resources in total resources, and diversity of financial backers.

Policy reforms usually take time and it is not that surprising to find that WASP has such a high performance level with regards to the Regional Seed Regulation implementation. Knowing that Chad and Mauritania will not be likely able to publish the Regional Seed Regulation in their national gazettes before its adoption by CILSS, only the two Portuguese-speaking countries and Ghana have not published

the Regional Seed Regulation in their national gazettes. Cape Verde and Guinea Bissau are scheduled to publish soon the Regulation. However, for Guinea Bissau frequent political instability tends to delay all political decision-making. In Ghana, the rigidity of the legal system appears to be the blockage.

There is an exchange or free movement of agricultural goods between ECOWAS member states in consonance with the Regional regulation, as evidenced by the seed restocking in the EBOLA-affected countries, and Nigeria sending breeder seeds for foundation seed production in several other ECOWAS member countries. In two instances (in Mali, tripartite agreements entrusted the private sector with the production of Breeder Seeds; and, in Ghana, GLDB sub-contracted the production of the Foundation Seed to CSIR-SARI), the Harmonized Regional Seed Regulation was inadvertently /unwittingly violated and much vigilance must be exercised to consistently abide by the Seed Regulation.

In relation to the combination of all loan access-related bottlenecks translated into a limited number of loans, attention shall be paid to the loan access shortfall if the private sector is to be the engine of the seed value chain.

The MTE Team recommends:

- R1.** ECOWAS, UEMOA, CILSS/INSAH need to advocate for graduate training programs to develop the next generation of critically needed seed technologists and plant breeders for both the WA public and private seed sector.
- R2.** WASP should define at least one indicator to track IR 1, *Alliance for seed industry in WA for effective coordination sustained*. The new M&E specialist should immediately start addressing this shortfall.
- R3.** ECOWAS and UEMOA should facilitate the development of a funding mechanism to establish a loan-guarantee scheme to support private seed value chain actors and facilitate PPPs to improve seed control and certification through greater private sector participation.
- R4.** Critical actions need to be implemented to make ASIWA and COASem functional, including establishment and functioning of their Secretariats and implementation of their action plans.
- R5.** WASP should consolidate its support of NARIs, CGIARs for breeder seed production, and improve its support to the private sector in foundation and certified seed production.
- R6.** CORAF through WASP should develop a fund-raising plan to leverage investment funds for its activities to support the seed industry, including funding from bilateral Missions, the private sector and other donors.

6.2.2. Integration of Fertilizer constraint in WASP approach

▪ ***To what extent has WASP considered fertilizer as a constraint in the use of seed varieties it is promoting? Include in the analysis a review/description of the investments made by WASP in documenting fertilizer use during the field-testing stage.***

The MTE Team notes that WASP program has considered fertilizer use as a constraint in the use of seed varieties and has, through capacity building activities that demonstrate Good Agricultural Practices (GAPs), shown the importance of combining fertilizer usage with other agricultural inputs and practices in seed production. Furthermore, WASP has promoted fertilizer use through the funding of breeder seed foundation packets submitted by the NARIs and CGIARs.

However, while the use of fertilizer is shown in the WASP AWPB, there is no investment in documenting fertilizer use at the foundation and certified seed production levels. There are no documented data gathered by WASP on fertilizer use at the Foundation and Certified seed production levels (WASP's COP interview, 23 May, 2016) - since latter multiplication stages in producing certified seed is largely done by private seed companies - who may not have fertilizer usage data.

WASP however, has played a major role in training, through workshops, on GAPs and supported establishment of demonstration plots alongside farmer practice. The project approves and pays for budget estimates submitted by the NARIs and the CGIAR Centers for the production of Breeder seed in all the seven implementing countries (WASP Annual Report, 2015). Consequently, seed producers have appreciated the benefits of applying fertilizers in seed production. In countries such as Nigeria and Mali, where there is the capacity for regular inspection of Foundation and Certified seed fields, the Certification agencies ensure strict adherence to agronomic practices which include the use of the recommended fertilizer rates; however, in Ghana and Senegal the four required field certification visits are not being adhered to. The WAFP, which has run concurrently with funding from the USAID/WA in the region, has complemented enhanced fertilizer use alongside the promotion of improved seed usage.

The National Seed Specialists and the Seed Certification Agencies do follow-up visits to ensure strict compliance of the recommended agronomic practices. Over the three-year period, the project has spent the equivalent of US\$77,643 on fertilizer use in the production of breeder seed. Interviews with key informants and production manuals in the NARI and CG Centers (WASP –Nigeria Maize Breeder Seed Production Handbook, 2015; Rice Seed Production Manual, AfricaRice, Nigeria Station) have shown that current fertilizer use in maize breeder seed farms are at 120 Kg Nitrogen (N) per ha for open pollinated varieties and 150 Kg N per ha for hybrids. The fertilizer rate is as high as 200 kg N per ha in split applications in rice fields (African Rice Seed Production Handbook; <http://www.knowledgebank.irri.org/agronomy-guides>).

Foundation and certified seed production have largely been in the hands of private seed producers in the implementing countries. The WASP promotes private sector activities with subsidies (40 – 60% of production cost) to encourage them to adhere to the good agricultural practices (GAPs)/ agronomic practices prescribed in seed production guidelines.

Table 13. Fertilizer Subsidies to NARIs and CG Centers for Breeder seed production (2013– 2015).

Year	Area (ha)	Quantity	Price (US\$)
2013	41	16,730	17,927
2014	82	33,635	20,952
2015	170	54,306	38,764
Total	293	104,671	77,643
Types of Fertilizer		Nitrogen-phosphorus-potassium (NPK); Urea; Single Super Phosphate (SSP); Lime	

Source: WASP Data. June 2016

The MTE Team finds, for increased crop production, high quality, improved and certified seed and appropriate fertilizer usage are needed for sustainable intensification. Fertilizer usage remains low in the West African sub-region. Limited access to fertilizer (currently estimated at 10 kg/ha N) is a major constraint to agricultural production in West Africa (Keyser, 2013).

WASP recognizes the need for fertilizer in the use of improved seed of the major cereals (maize, rice, sorghum and millet) it is promoting, particularly in the Savanna zones where the soils are low in major nutrients and organic matter.

The MTE Team concludes, WASP recognizes the importance of a “package approach” of improved seed, fertilizer and other agricultural inputs as part of GAPs. WAFSP and WASP have worked together in getting the regional regulations (seed and fertilizer) gazetted in ECOWAs countries (Interview, WASP M&E Officer, 9 June 2016). IFDC has an MOU with CORAF at administrative, but not technical, level. The lack of MOU at the technical level unnecessarily impedes collaboration between the technical-level partners who want to collaborate. There needs to be better synergy between WASP and WAFSP under ECOWAS framework.

The MTE Team recommends:

- R1.** The WASP should continue to support the NARIs and CGIAR Centers with their input needs, including fertilizer, in the production of breeder seed.
- R2.** The private sector should be supported to undertake more demonstrations in their outgrower schemes to show the benefit in using the recommended rates of fertilizer and other GAPs in the production of Foundation and Certified seed.
- R3.** USAID and ECOWAS/CORAF should ensure that WASP and WAFSP are synergized for better coordination of supports to improved use of seed and fertilizer.

6.2.3. Private Sector Role in the Regional Seed Sector

▪ *How has the private sector fulfilled the roles expected of it in the regional seed sector? For example, describe the viability of the private sector and how it is advancing the development, promotion and sale of certified and foundation seed. What vulnerabilities/weaknesses/gaps still exist within the private sector and what can be done to address them?*

Actions implemented by WASP are relevant and promising. Seed producers and agro-input dealers are more active in their associations, in a large part, stimulated by WASP. One of WASP’s successes was its flagship launch of the ASIWA. At the launching of ASIWA there were 316 national seed sector stakeholders, members of the NASTA from eight WA countries who initially bought into the ASIWA concept. The participants received training on the West Africa Seed Information Exchange, WASIX, on how to use the platform to sell their seeds. This was significant because the Exchange has the potential to facilitate trading of hundreds of thousands of improved seed.

A lot of seed growers stand to make a lot of money in the future. One of the ways of promoting growers to get into FS and CS production and encourage farmers to use improved seed is through Seed/Trade fairs. In Mali, WASP organized the first seed fairs, bringing together industry, agricultural input companies, growers, farmers and other players along the seed value chain. The Mali seed industry and the Government of Mali have now taken “ownership” of commercial seed fairs which are being replicated in other regions other than Sikasso. Now the seed fair is also taking place in Segou and Mopti (30 May 2016 Evaluation Interview, Bamako, Mali). The seed fairs are venues for testing new varieties, demonstration of new farming concepts and Good Agricultural Practices (GAPs), such as the rotation of crops and legumes for better soil management. In the other countries, the seed industry is using field demonstrations to change the attitudes of farmers to switch from low-yielding, traditional landrace-collected seed to improved seed and hybrids (19 May 2016 Evaluation Review, Tamale, Ghana).

The agro-input dealers play an important role in moving and expanding seed supply along the value chain and getting seed out to distant rural areas (19 May 2016 Evaluation Review, Tamale, Ghana). In Ghana, the number of dealers has increased to 400 SEEDPAG individuals and 14 NASTAG seed companies. In Nigeria, before the GESS programme the agro-input dealers were only into vegetable seed marketing. Now there are over 2300 agro-input dealers who have included seeds among their products. The dealership facilitate access to improved seeds but they also resolve the storage problems of the seed companies who usually do not have proper facilities for long term storage. So, by taking the seeds off the hand of the growers the dealerships help overcome a major gap in the value chain.

Some members of the seed private sector possess seed cleaning and grading equipment which allow for certification but also linking farmers to the end users. In Senegal, it is a Cooperative in the north of the country that does the cleaning for all seed growers without which seeds cannot be certified. In Ghana, the M&B Seeds Co. owns a processing plant and in Mali it is Faso Kaba Co. Ltd that owns a processing plant. But in Nigeria alone there are 4-24 processing units (2016, Tamale Evaluation Interview). In Ghana, the major seed companies include M&B Seeds and Agricultural Services, Savanna Seed Services Co. LTD, Antika Co. LTD, Rural Innovation Consult LTD and Heritage Seeds Company LTD).

Local seed enterprises can also be effective in organizing local seed producers. With the capacity building from WASP, M&B Seeds & Agricultural Services, Ghana, has expanded its technical expertise to produce Foundation and Certified Seed by partnering with WASP and working with research institutes (IITA and CSI-SARI). The company is advancing the development, promotion and sale of Foundation and Certified Seeds by providing training to seed growers and farmers, and field demonstrations to test and show advantages of improved seed. Through the help of WASP, M&B Seeds organized women seed producers in the Volta Region, utilizing them as out-grower schemes for larger scale seed production; this has included “starter packs” of seed, fertilizer, and technical information (20 May 2016 Evaluation Interview, Accra). Working with IITA and CSI-SARI, M&B Seeds venture into production of hybrid maize increased from less than 10 Mt before WASP to 800 MT in 2015 (20 May 2016 Evaluation Interview, Accra).

The number of seed dealers in Ghana has increased from less than 10 dealers before 2012 and to the current number of 35-40.

As another example of the industry becoming more proactive - the National Seed Traders Associations (NASTAs) in WA countries are enhancing partnerships between the public and private sectors. These PPPs are bringing together seed growers and traders to help harmonize the systems of production, testing, quality control and marketing. In Ghana, to set an affordable price for Certified Seed that is fair for industry production costs - seed industry representatives (Seed Producers Association of Ghana) and agro-input representatives meet annually with Ministry of Food and Agriculture (MOFA) officials, NARIs, and Ghana Legume and Grain Board to set an agreed upon price for Breeder Seed (4X), Foundation Seed (2X) and Certified Seed (1x) – that is equitable to all parties. This also helps in the planning of Breeder Seed needed to produce Foundation and Certified seed.

In other PPP models, ISRA in Senegal takes partial payments on seed contracts for their NARI produced Breeder Seed to supply seed companies for growing Foundation and Certified Seed; the guaranteed contracts bring needed cash flow to the NARIs from the seed industry to produce the Breeder Seed which is critical for supplying the seed industry value chain. This can provide a critical mass in terms of volume to enable better access to the regional markets.

In Mali, Faso Kaba is another example of a seed company that took advantage of PPPs for improved seed production and sales, financed by a loan from Injaro with support from AGRA. Faso Kaba will have a production capacity of 60,000 tons per year, with 15 permanent jobs and another 80 part-time jobs for factory production and packaging. Some of the technical partners of the factory include the Institute of Rural Economy, APCAM, ICRISAT, IPR / IFRA and the National Directorate of Agriculture. The Mali MOA is very aware of the importance of improved and hybrid seed [Evaluation Interview, Mali, May 2016]. The WASP Seed Specialist has been instrumental in getting improved germplasm to Faso Kaba [Evaluation Interview, Mali, May 2016]

The MTE team finds: In the future, the challenges and bottlenecks affecting the seed industry in West Africa should be reduced now that ASIWA and NASTAs have been established. Their existence will enable the private sector to make a greater contribution in the decision-making process of the seed industry while the establishment of business linkages with the public sector will enhance business opportunities. The seed industry is now better organized with active trade organizations, net-working, lobbying/advocacy, and developing businesses anchored to business plans. WASP provided assistance in

setting up companies but also re-vamping old and struggling ones and now a few are having Business Plans written for them and already seed companies in Benin have accessed bank loans.

However, the seed companies are still not strong enough to last for a long time. It is necessary to accompany them through trainings and coaching in management, exchange visits and development of business plans. The FtF performance indicator for number of companies having business plans and accessing bank loans is 14.3% which is very low. To increase the performance in this area will require a more concerted and focused effort of WASP in the final year of the project to help increase capacities of companies and write BPs for them.

Seed Fairs: The seed fairs have proven very effective in Mali and Ghana. They are a convener of all the key stakeholders of the seed value chain. The stakeholders will either learn new things/methods and they buy or sell improved seed. It's an effective extension tool through which production and productivity can be improved. It should be up-scaled to the other countries.

WASIX: A fully functional market information system will enhance private sector linkages, information, planning and commerce. The exchange, when functioning well, can allow for trade in large quantities of seed. The seed traders stand to make a lot of money; deficit countries can have quick access to improved seed from the sub-region and it will resolve the problem of unsold stocks. For example, some Nigerian seed companies still have large stocks in their stores. If the Nigerian or any other company have the capacity to produce for own needs and beyond, the exchange would be a good place to sell their surplus capacity.

Dealerships: The agro-inputs dealers are basically retailers at the level of the towns and villages. They exist in remote, rural areas. Therefore, they are very effective in dissemination of improved seed and other agricultural inputs. In the past, before, WASP, most of them distributed fertilizers, vegetable seeds, pesticides and small farm equipment. But now, with the promotion work of WASP but mostly AGRA, the dealers sell field crop seeds along with their traditional wares. The relationship between the dealers and the seed growers should be strengthened to allow rapid movement of the seed to the users but also help the growers get rid of their stock and overcome their storage problems. The work of AGRA on the agro-input dealerships can be up-scaled to non-beneficiary countries and should be extended within current beneficiary countries so they reach even more potential farmers.

Seed Companies: The private seed companies have a critical role of producing multiplying, processing and distributing improved seeds. The private sector seed industry can produce Foundation and Certified Seed - and help disseminate climate-smart, improved seed. They have a comparative advantage in the production and distribution of hybrid seed for the principal field crops - and high value vegetable seed - which will only increase with opportunities for servicing niche markets in rapidly growing urban and peri-urban markets of WA.

The private sector is important for out-growing contracts, seed production, quality assurance, and trade. To enhance financial resiliency, some companies give inputs to their farmers which they pay back at the market price when crops are later harvested, i.e. in Nigeria, some of the larger rice milling companies give "packages" to farmers which include fertilizers, chemicals and other agro-inputs that farmers pay back when the crop is harvested. Opportunities exist for WASP to encourage the rice-milling companies to request high-yielding, improved rice varieties (which would benefit all actors) as an additional component of the "package".

PPPs: The plant breeders in the NARIs rely on government budget allocations for variety development. Often the funding from government is inadequate and unreliable which partially explains the low turnover of new varieties. The PPPs are a form of guaranteed contracts between the NARIs and the seed industry and can be one way of sustaining and growing the fledgling industry by bringing much needed cash to the plant breeders when they need it. The PPPs should be promoted and an enabling environment created for their existence.

As a niche, the seed industry has competitive advantages as a business-to-business (B-to-B) to grow dramatically in serving the food needs, population growth and urbanization in WA. However, financing, particularly at double digit interest rates in some countries, is a huge challenge. The seed industry remains highly dependent on donors, NGOs and WASP, which has subsidized Breeder Seed up to 60% to make it more affordable. Seed companies do use their own resources, but many need donor resources because the companies are young and need access to financing.

- An exception is the Nigerian seed industry which is more financially robust. In Nigeria, seed is treated as a serious business and was supported by the Government Growth Enhancement Support Scheme (GESS) that provided access to fertilizer, seed and other inputs through mobile phones (e-wallet) and they had better access to soft loans through the Central Bank of Nigeria (CBN) Nigerian Incentive-Based Risk Sharing Systems for Agricultural Lending (NIRSAL).
- There are other PPP with seed companies in Mali (ICS Agri-Mali, Seneso and Sogeba) producing Foundation and Certified Seed, including some of the 23 varieties released by AVRDC in 2011 mostly indigenous vegetables (okra, African eggplant, hot pepper), and distributing to other companies for certified seed production. Seneso <http://www.ss-seneso.org/> has been working for two consecutive years with a national university and with the USAID Horticulture Innovation Lab to introduce improved varieties and strengthen capacities of pepper producing farmers. There are future opportunities for WASP to collaborate with AVRDC, AGRA PASS, USAID Horticulture Innovation Lab, and other seed actors focused on the value chain.

In conclusion, Prior to WASP, the private sector role in the seed industry was at a very low level. While WASP has greatly enhanced private sector involvement in the seed industry, there is much room to consolidate and improve the performance of the private sector in the seed industry. There are both challenges and opportunities.

While large seed companies find it difficult to operate in WA, because of a large number of small markets (except in Nigeria), there are niches for SMEs in the seed value chain. Except for Nigeria and Ghana, there is a lack of critical mass and of development and marketing of commercial hybrid seed (WASA 2011; Tahirou et al. 2009). The WA private seed sector is still embryonic [small size, lack of financial attractiveness, distortion of markets through government subsidies, and grants from NGOs and other partners] and not well organized.

Until recently, the private sector has not been given the opportunity to contribute to the decision-making process on issues such as regulations and commerce affecting the seed industry. However, there are pockets of success and growth. While the industry has not fulfilled its role robustly enough in the WA Seed Sector, it is slowly moving forward and represents a critical component in FtF and agricultural productivity in West Africa.

Now that the ASIWA is launched and NASTAs created in all the member countries the final year of WASP and the aftermath should focus on helping to make sure that the organizations are on their own completely financially and technically. When they become independent of WASP or donor funding will they then be able to sustain their activities for the long term. In collaboration with end users (industry) they will determine the supply and demand of improved seeds, financing of research work on new varieties and better genetic materials and the trade and marketing issues that constitute a sustainable, viable seed system in West Africa. In the meantime, there is need to promote adoption and use of improved seed by farmers in West Africa. One of the best vehicles to get the seed industry there is the seed fairs and field demonstrations. They work very well in some countries and can work in the whole sub-region. Seed fairs should be up-scaled to countries not currently using them.

Given the importance of trade and marketing of seed it is imperative that the electronic exchange, WASIX, become operational and utilized by the seed growers. WASP should accelerate training on the use of the Exchange throughout the target countries before the end of the program.

The agro-input dealership network is very important in getting good planting seed to farmers who need it most. Since access to improved seed is a key constraint to agricultural productivity more effort should be made to overcome this constraint and the agro-input dealers are effective in doing that. Most of the improved seed is produced by smallholder farmers and a few seed companies, except in Nigeria. The few existing in the other countries need to be supported and encouraged until they can scale-up and be in a position to produce the seed needs of individual countries but also the whole sub-region.

To overcome all the issues connected to the seed industry in West Africa will require the contribution of all the stakeholders: governments, para-statal and the private sector and individuals. More public-private-partnerships that will bring together interested stakeholders in a relationship where all would benefit need to be developed.

The MTE Team recommends to consolidate and reinforce WASP actions by:

- R1.** Making ASIWA and NASTA fully operational by reinforcing training, capacity building, facilitating consultations and improving capabilities to leverage funds in financing the private sector seed industry.
- R2.** Scaling up PPPs and expanding into other countries, using the Nigeria success story under the GESS and Senegal PPP in controlling foundation and certified seed production.
- R3.** Because of their comparative advantages in dealing with the private sector, ROPPA and AFSTA should be directly in charge of implementation of the WASP components related to the private sector (R4).
- R4.** Seed fairs should be up-scaled to countries not currently using them and WASP should accelerate training on the use of the Electronic Exchange WASIX throughout target countries before the end of the program.
- R5.** Making the WASIX fully functional and accessible – and managed directly by ASIWA by the end of the ongoing phase of WASP.

6.2.4. Sustainability of ASIWA and COASem

- *What actions (structures, processes, etc.) have been taken since the establishment of ASIWA and COASem to meet their respective objectives and to enable their sustainability? Include a description of the role/responsibility of core stakeholders, and address whether each has successfully understood and demonstrated their contribution.*

West Africa Seed Committee (COASem)

According to Articles 10 and 18 of the Harmonized Regional Seed Regulation, C/REG.4/05/2008 each member country should establish a National Seed Committee (NSC) and a Seed Sector Support Fund (SSSF). The NSCs are the technical arm of the Ministries of Agriculture who are grouped in a regional committee called COASem that provides the platform needed for a single approach for the implementation of the regional regulation.

COASem is set up to assist ECOWAS to coordinate and monitor the implementation of the regional regulation in terms of production, quality control, seed certification and marketing of improved seeds. According to its Action Plan, COASem should have an Executive Secretariat that is well staffed and appropriately equipped to render it functional. The COASem would then support implementation and monitoring of all proposed strategic actions and support the functioning of the NSCs and strategic activities to be implemented so as to promote the emergence of a viable private sector in the sub-region.

The activities expected to be carried out by COASem at the national level include operationalization of the NSCs and the development of national strategies. Each of the 17 countries has established a National

Seed Committee (NSC) with the memberships fully acquired. In total 932 individuals' capacities were strengthened in how to implement the regional regulation.

A Regional Variety Catalogue (CORAF/WECARD. Catalogue Unique Régional CEDEAO-UEMOA-CILSS des Espèces et Variétés Végétales. 2016) is compiled from the 17 national catalogues. In total 1751 varieties have been released in West Africa, among which 1330 (76%) are registered across the member countries.

Among the 17 member countries, 12 have published the regional regulation in their national gazettes or journals. The remaining five countries are Ghana, Cape Verde, Guinea Bissau, Chad and Mauritania. In Ghana, there is a draft bill under consideration by the parliament. In the Lusophone countries of Cape Verde and Guinea Bissau it is expected that they will publish before the end of the year. To complete the process in Chad and Mauritania, it will require the signature of a draft Tripartite Convention (ECOWAS, UEMOA, and CILSS) to publish the regional regulations in their national gazettes or journals. Chad belongs to the Central African Economic Community (CEMAC) and Mauritania belong to the Union du Maghreb Arabe (UMA). These countries are members of CILSS.

Adaptation of national procedures manual has been done in the 13 countries with an average 60% in compliance. The Acts undertaken are of the categories: regional seed regulation gazetted; national catalog instituted; NSC put in place; Seed Sector Support Fund created (although the mobilization of financial resources for these Funds has yet to materialize) nor has specific technical recommendations [STR] been developed. With regards to capacity strengthening, they are 80% in compliance (Asiedu, E. May 23, 2016 Evaluation Interview; WASP Semi-Annual report, 2016).

In the area of review of seed regulatory frameworks, all the countries are in compliance. However, some of the accompanying operations of COASem are not fully operational yet and the Seed Sector Support Funds (SSSF) are still in search of a funding mechanism that will allow them to mobilize meaningful funding. Some of the options that should be considered for that purpose are (i) to levy a special tax on all exported and imported food items and seeds and seedlings and (ii) to call for private donations from affluent businesses as part of their corporate social responsibility (CSR).

Alliance for a Seed Industry in West Africa (ASIWA)

An ASIWA as envisioned will be managed by a Technical Secretariat (TS). It will have three functions: 1) the role of coordinating regional seed development, dialogue, and advocacy; it will also coordinate ad-hoc working groups focused on issues of common interest amongst ASIWA stakeholders; 2) serve as a regional platform to manage a West Africa Seed Information Exchange (WASIX) operating as a clearinghouse and platform for knowledge sharing and 3) will have national affiliated platforms linked by functions and objectives (CORAF/WECARD. Action Plan for the Implementation of the Alliance for a Seed Industry in West Africa. 2014).

The regional platform is to be a Community of Practices to facilitate the exchange of information, ideas, experiences, and best practices among stakeholders interested in seed sector development. Through WASIX it will gather and disseminate information on seed demand and supply across markets and carry out seed markets analysis, seed market development, lessons learned and best practices. The national affiliates are where stakeholder engagement and participation would take place at the national level. They will serve as a convening point for dialogue on seed policies including the private sector (seed companies, NASTAs, agro dealers, seed users, farmer associations, grain end users and finance), government, research partners and relevant development projects or donor partners.

The Alliance was launched in August of 2015 at Abidjan, Cote d'Ivoire. Prior to the launching of ASIWA an electronic platform was organized on-line. The dialogue went on for four weeks in 47 countries. Every week had a different module. There were 350 participants and 21% of them were women.

Currently, WASP management is performing the coordination, but it is supposed to withdraw gradually and allow ASIWA management to assume the role of overseeing the management and direction of ASIWA. Almost ten (10) months after the launching of ASIWA, the technical secretariat is not in place. WASP still assumes the coordination and management of the affairs of the alliance. The process to recruit the staff of the technical secretariat has not started.

A Steering/Orientation Committee for ASIWA was supposed to be designated to assist with early partner outreach and provide initial strategic oversight. This committee is still not in place. A full-time ASIWA Coordinator and a full-time WASIX Coordinator were supposed to be recruited. These positions are still not filled and the evaluation team did not get any indication that the recruitment process has started. ASIWA marketing materials (presentations, brochures, etc.) have not been made. A funding proposal for submission to USAID to secure additional financial support for ASIWA during its early stage has not been prepared.

In conclusion, WASP, through a long process of sensitizing and mobilizing various seed industry stakeholders within the region was able to set up ASIWA and COASem which were highly welcomed by all seed stakeholders, including ECOWAS, UEMOA, CILSS, ROPPA, CGIARs, and the private sector. These newly established institutions still need to be reinforced and made functional to fully play their role in the seed industry with full ownership by the actors.

The MTE team recommends:

ECOWAS should, through better coordination of efforts and communication, take necessary actions to make ASIWA and NASTA fully operational through training, capacity building, facilitating consultations and improving capabilities to leverage funds for financing the private sector seed industry is also needed. To make this happen, these actions need to be integrated in the new ECOWAS/ECOWAP RAIP.

- **ASIWA:**
 - Preparing the job profiles for staff to be recruited,
 - Setting up the Secretariat,
 - Preparing the initial draft of the proposal to be presented to USAID, and
 - Mobilizing internal resources from ASIWA's members while awaiting external resources,
- **COASem:**
 - Establishing the Executive Secretariat
 - Designing and implementing COASem's own website
 - Publishing regularly newsletter and other media campaigns (radio and TV campaign).
 - At the regional level, COASem should have its own website which would have a link for each country. - COASem should also publish a newsletter regularly which would reserve a section for information coming out of each country. There should be regular radio and TV campaign episodes, workshops and seminars for Training of Trainers; reporting and disseminating of workshop seminars; information and sensitization campaigns and an audit report of the info and communication systems associated with performance indicators.

6.3. Sustainability & Lessons Learned

6.3.1. Fertilizer Use from Breeder to Foundation and Certified Seed

- ***How is WASP addressing the fertilizer issue (utility/supply/demand) in the move from breeder to foundation and certified seed?***

WASP's effort in facilitating the harmonized regional seed and fertilizer regulation will ensure free trade and make fertilizer affordable to users in the seed value-chain. WASP has budgeted fertilizer expenditure

to support breeder seed production at the NARIs and CGIAR centers. WASP has indirectly subsidized fertilizer usage by the private sector (40%-60%) in the production of foundation and certified seed.

During the past two years, WASP has been instrumental in deliberations on detailed regulations setting out rules for regional trade and quality control of seed and fertilizer - which have been enacted by the ECOWAS Council of Ministers. By harmonizing fertilizer specifications across the ECOWAS region, it is expected to create a larger fertilizer market and bridge the gap between demand and supply and consequently bring the unit price of fertilizer down for farmers and raise the level of fertilizer use.

WASP is addressing the fertilizer issue indirectly by building capacity in the seed sector and improving institutional upgrades regarding variety release procedures and seed certification procedures that will force the seed value chain actors to use prescribed fertilizer dosages. A complementary effort by the WAFSP on regional quality control procedures based on standards set by the Association of Official Analytical Chemists (AOAC; OECD, 2012), would build confidence among the countries and help remove fertilizer trade barriers in the region. When the nations adhere to the 'Truth in Labelling' principle in the regional fertilizer trade, it will help ensure free and swift movement of fertilizer.

Regulations for foundation and certified seed require that seed producers use prescribed/sufficient fertilizer to maintain a healthy seed plot. While foundation and certified seed producers use fertilizer and other agricultural inputs during production, the challenge is getting more end-users (farmers) to see the benefit of using fertilizer with improved seed to increase yields and to have the means to buy the required fertilizers for farming.

Some progress has been made towards fertilizer use in the seed value chain (breeder, foundation and certified seed) but this has been largely spurred by WASP intervention and support. There is also progress towards implementation of the ECOWAS fertilizer regulatory framework in the provision of technical assistance for adoption of the harmonized regulations. Joint missions with CORAF, CILSS and ECOWAS to advocate for the implementation of seed, pesticides and fertilizer regulations have taken place (WAFSP Fact Sheet, Oct, 2015).

A number of hurdles still need to be overcome in the region. Due to the bulkiness of fertilizer, prices tend to be far higher in the landlocked Sahel countries than in coastal countries. West Africa's transport costs are notoriously high and are estimated to account for almost a third of the fertilizer retail price in Mali (Diakite, et al., 2013). Other reasons include poor condition of the trucks and roads, freight delays on the roads and in the borders and payments demanded by corrupt officials.

Local fertilizer production is growing in the region, but still limited and dominated by blending companies that use ingredients imported from outside West Africa. Blending plants with appreciable capacity are installed in Burkina Faso (CIPAM), Cote d'Ivoire (YARA and STEPC), Ghana (Yara, Golden Stork), Mali (SOGEFERT, Toguna Agro-Industries), Nigeria (NOTORE, Golden Fertilizers, TAC Agro), Togo (Wabco Cotia, SOTAGRI) and Senegal (SENCHEM) [Fuentes, et al. 2011; UEMOA, 2013; Ayoola, 2014]. The potential also exists for countries that have natural gas and/or coal reserves (Cote d'Ivoire, Ghana, Niger, Nigeria and Senegal) to produce urea and other forms of nitrogen (UEMOA, 2013). These developments indicate an improvement in the trend towards an increased fertilizer supply in the region and a consequent boost in fertilizer usage by farmers.

The MTE Team concludes that WASP has used demonstration plots to show the value of using fertilizer, thus encouraging farmer adoption. WASP provides packages of production inputs in support of breeder, foundation and certified seed for the national institutions involved in breeder seed production and for the private sector. This includes fertilizer. WASP efforts in facilitating the harmonized regional seed and fertilizer regulation, through advocacy, will ensure free trade and bring down fertilizer prices.

The MTE Team recommends:

- R1.** WASP should continue to support the NARIs and CGIAR Centers with their input needs, including fertilizer, in the production of breeder seed.
- R2.** The private sector should be supported to undertake more demonstrations in their outgrower schemes to show the benefit of using the recommended rates of fertilizer and other GAPS in the production of Foundation and Certified seed.
- R3.** USAID should ensure that WASP and WAFP are working in synergy for improved use of seed and fertilizer. CORAF/WASP should work with NARIs and CGIAR Centers to leverage more resources for input needs.

6.3.2. Scale-up of CORAF Support for Breeder Seeds through NARIs in WA

- ***Is it reasonable or not (and why) to expect CORAF to replicate/scale the WASP demonstrated model of capacity support for breeder seeds throughout the NARIs in the West Africa region?***

Capacity support provided by WASP to NARIs for breeder seeds production (PowerPoint Presentation of E. Asiedou, May 2016) includes: 1) Knowledge and skills of 830 NARS personnel enhanced (20% Female); 2) Sets of equipment (laboratory and processing) provided to 5 NARS; 3) Post-graduate training modules developed with regional universities; 4) Production of breeder seeds with WASP support is as follows: 77.8 MT in 2015 as compared to 54.6 in 2014; 41.0 in 2013.

As indicated in the presentation made about CORAF and WASP (23/5/2016 and Asiedu, E. WASP Interview 1 June 2016 and the forms filled for the institutional capacity assessment), the objectives of WASP are very much aligned with CORAF's strategic objective. All the activities being carried out by WASP fall under CORAF's mandate and objectives (refer to tables in question 4). Any lesson learned during the implementation of the present phase is therefore likely to be added to CORAF's basket of good practices and success stories that are ready to be duplicated either in West Africa or in other regions.

The MTE Team finds: CORAF staff involved in the implementation of WASP have the experience needed in similar project implementation. For example, six of the WASP staff (Chief of Party, Seed Policy Specialist; Seed Production Specialist; Seed Agri-Business Specialist; National Seed Specialists – Senegal and Nigeria) were engaged in WASA, the preceding project. In the same vein, CORAF is implementing the West Africa Agricultural Productivity Program (WAAPP) Multi Donor Trust Fund at both the national and regional levels. CORAF had earlier implemented several projects funded by USAID, DFAT, DFID, AfDB, and CIDA.

The success obtained by WASP is partly attributed to the favorable strategy, environment and networking mechanism established by CORAF with the NARs and NARIs and the fact that the responsibility for the implementation of each component of the program is given to an organization that has the best comparative advantage as indicated below:

- **WASP Result 1** – Seed Alliance coordinated by Hub Rural/CORAF Secretariat and National Seed Specialists;
- **WASP Result 2** – Seed Regulation by INSAH and the Seed Policy Task Force;
- **WASP Result 3** – Breeder Seed Production by NARIs and CGIARs;
- **WASP Result 4** – Coordinated, oriented and supervised CORAF and implemented by AFSTA/NASTAs and ROPPA/FBOs.

In conclusion, the WASP team is well “nested” within CORAF and therefore nothing prevents CORAF from taking the lead if scaling-up or replication is to be carried out.

CORAF has demonstrated its capacity to manage WASP, as well as to replicate lessons learned. The synergy between WASP and WAAPP in various countries has also demonstrated very positive results. This cooperation between the two programs should, therefore, be continued to ensure successful scaling-up or replication. It is indeed reasonable to expect CORAF to replicate/scale the WASP demonstrated model of capacity support for breeder seeds throughout the NARIs in the WA region and beyond.

Both for the purpose of the said plan of action and the likely withdrawal of USAID funding moving forward, CORAF has to take the lead in developing a WASP exit strategy that will allow the sustainability of this positive and beneficial experience. That exit strategy may have to provide for a transition phase allowing smooth withdrawal of USAID support and gradual takeover of support to WASP by ECOWAS and other regional bodies. The transition phase may call for a second phase or “transition phase” or “bridge phase” of WASP to be still supported by USAID. The exit strategy will call for a sustainable funding mechanism in which ECOWAS, UEMOA, CILSS, African Development Bank, BOAD etc., will have to contribute. Countries and big private companies should also be called upon for contributions and donations. We believe CORAF will have to take active steps in mobilizing additional resources to continue the WASP experience.

The MTE Team recommends:

- R1.** CORAF should develop a plan of action for scaling up/replicating WASP activities. This mid-term stage is the right time to develop such a plan of action which should be developed, discussed and adopted before the last year of the present WASP phase. This plan of action for scaling up and expansion should be developed as part of the WASP exit strategy that will call for a sustainable funding mechanism for WASP activities.
- R2.** If this CORAF/WASP initiative is to be scaled up or replicated, the following prerequisites or conditions need to be met:
 - a. If the scaling up/replication is to be done within West and Central Africa, then CORAF should continue to be fully involved and there should be recruitment of adequate personnel in terms of number and quality.

6.3.3. Institutional Structures/Relationships to Sustain WASP Investments

- ***Are the institutional structures/relationships now in place, for example within partnership institutions such as the NARIs, or are they being developed to sustain the relationships and investments that are being made by WASP?***

CORAF is constituted by the NARS (National Agricultural Research Systems including all Agricultural research and development stakeholders) with the NARIs (National Agriculture Research Institutions) in 23 member countries as focal points in each country. Consequently, CORAF competitive and commission projects (over 54 in number) are mainly coordinated by the NARIs - and sometimes by universities, private sector, NGOs and FBOs. CORAF strengthens the NARS/NARIs by providing training (short and long- term) and equipment – hence, the WASP involvement is in line with these objectives (CORAF mandate, Annual reports and Interview of WASP, COP, June 2016).

WASP/CORAF institutional Sustainability: “A key component of sustainable development is the institutional framework within which activities are conceived, planned, funded, implemented and managed. While the technical quality and appropriateness of development activities are critical to success, sustainable institutions are equally so.” (Brinkerhof & Goldsmith, 2009). CORAF was designated by the RECs including ECOWAS and UEMOA to lead the implementation of CAADP

Pillar IV – “*Improving agriculture research, technology dissemination and adoption*” and a regional instrument exists to support the implementation of the Pillar IV, namely, the Framework for African Agricultural Productivity Programme (FAAP) which would bring technical, financial and political resources together to foster regional capacities. The conception, planning and funding of WASP through CORAF and ECOWAS in line with the FtF objectives, is a very good basis for the program sustainability as part of the CAADP Pillar IV implementation. Key concerns analyzed by the MTE Team include WASP/CORAF institutional and financial sustainability: has CORAF integrated in the WASP implementation approaches and tactics to ensure better appropriation of the program by ECOWAS and regional stakeholders?

The MTE Team’s understanding is that the current phase of WASP did not include, from the design stage up to now, a strong exit strategy and a detailed plan of action that aims at making the regional institutions (ECOWAS, UEMOA and CILSS) take full ownership of this program. Rather WASP has been viewed by these institutions as a “*USAID project*” in which they must participate because the project objectives match the objectives of their agricultural policies and strategies. WASP project designers may have taken for granted the ownership of WASP by these regional institutions. That’s why the evaluation team’s opinion is that a detailed exit strategy is to be developed and widely discussed with all stakeholders to agree on how to proceed in the sustainability direction. Getting a wide consensus around this exit strategy is a prerequisite for a smooth taking over on funding by the regional institutions at the end of WASP phase I. As this requires some time to make sure the exit strategy is adequately discussed for a successful implementation, there is therefore need for a second phase of WASP which will of course require USAID continued support as well as other partners, including ECOWAS, UEMOA, AfDB, and private sector tycoons such as DANGOTE in Nigeria, the Sow family and Cheikh Amar in Senegal etc.

The CORAF mandate includes both a technical role and a financial/fundraising role which are actually complementary. It is the optimal combination of both roles that will allow CORAF to fulfill its technical role in a comprehensive and optimum manner. CORAF has therefore to promote at regional and national levels the establishment of sustainable funding mechanisms for research and knowledge sharing. For example, CORAF can draft or contribute to the production of technical documents that will substantiate any call for funding made by ECOWAS to its member countries or to external partners. CORAF can provide similar support to ASIWA, COASem and other if they start the same type of initiatives.

It is additionally obvious that in the search for financial support to the seed sector, all institutions involved in the seed sector can call for additional funding through their specific usual partners. But if any additional funding is mobilized by ROPPA, AFSTA, ASIWA, COASem and others, the portion of resources mobilized that is meant for technical aspect of seed development has to be given to CORAF to implement.

Ultimately, all the institutions being put in place at national and regional levels such as ASIWA, COASem, AFSTA, ASIWA, ROPPA, and private seed companies among others, are to take full responsibility for development of the seed industry. Of course, this will require support and oversight from ECOWAS, UEMOA and CILSS (for regional policies and regulations) and financial support from AfDB, BOAD, the World Bank and any other agencies (USAID for example). As the technical body, CORAF will definitely have a role to play in these initiatives.

One of the main recommendations of this mid-term review is to request WASP/CORAF to produce a draft document highlighting the exit strategy they propose detailing what has to be done at regional and national levels to ensure that at the end of WASP the system put in place continues to function in a sustainable manner.

For example, the Centre de Suivi Ecologique (CSE) in Senegal was initially created as a project within the Ministry of Environment of Senegal (MES). The project was designed in a way that: (1) The project Director and his staff were under the tutelage of the MES; (2) a clear exit strategy was agreed to from the beginning of the project, implemented and monitored by all relevant stakeholders, (3) After the 5-year

phase of the project, CSE was created as a parastatal institution to carry out the same activities with the MES framework. (4) The project document included a Program Suitability plan whereby CSE would charge for its services in order to generate its own funds to cover its core costs. Has CORAF implemented WASP as a program of the CAADP Pillar IV, or as stand-alone donor project?

At programmatic framework level: The African Union's (AU) framework document for addressing food security in Africa is the Comprehensive African Agricultural Development Programme (CAADP). The CAADP has 4 pillars one of which, Pillar IV, is on improving agricultural research, technology dissemination and adoption. The various pillars of the CAADP is assigned to one continental organisation to implement on behalf of the AU. Thus, Pillar IV is assigned to the Forum for Agricultural Research in Africa (FARA). FARA, in turn, work with the Regional Economic Committees (RECs) and Sub-Regional Research Organizations (SROs) such as Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), CORAF/WECARD, Southern Africa/Food Agriculture and Natural Resources (SADCFANR) and North African Sub-Regional Research Organization (NASRO) and National Agricultural Research Institutions (NARIs). CORAF was designated by the RECs including ECOWAS and UEMOA to lead the implementation of CAADP Pillar IV in West Africa.

In 2005 ECOWAS formulated a common agricultural policy for the sub-region called ECOWAP and to implement it ECOWAS adopted an investment plan, Regional Agricultural Investment Plan (RAIP) for the period 2009-2014. The activities in the plan were first generation activities and they have ended. Currently, ECOWAS is preparing the second-generation activities for the period 2017-2022. The RAIP had three mobilizing and federating programmes; the first of which was: to support all regional initiatives and strategies for the development of agri-food value chains, in order to improve the incomes of the rural population, reduce food dependency of the ECOWAS Member States and modernize production systems (RAIP: First federating programme).

The first federating programme has two components. The first component which is relevant to the WASP MTE is the promotion of food commodities that contribute to food sovereignty: Rice-Maize-Cassava. It covers activities dealing with support for the modernization of family farms and sustainable intensification of production systems, development of irrigation, structuring and organizing value chains and promoting processing and value addition of products. Maize and rice are two target crops of the WASP and non-availability and non-access to improved seeds are a major constraint to a sustainable intensification of production for these crops.

This is the context in which ECOWAS has developed the WASP programme and sought financing for it from USAID/WA. Given the above context, one can conclude that the WASP is a direct response to the ECOWAS/CAADP which the ECOWAP/RAIP has provided for in its mobilizing and federating first generation programme to tackle food insecurity in West Africa. During the course of implementation in which there are several institutional actors, however, the visibility and role of ECOWAS was diminished. This was lamented by the Director of Agriculture of the ECOWAS Commission in a key stakeholder interview discussion with him. The WASP gradually became associated more and more with the donor, USAID, than the originator of the programme, ECOWAS, which has the ultimate responsibility for it.

In a follow-up interview with the Director of Agriculture of ECOWAS the MTE team was assured of the responsibilities of ECOWAS towards WASP and the follow-up activities after 2017. The Director assured that measures to consolidate the wonderful gains made under WASP and support to COASem and provisions of the Harmonized Regional Seed Regulation will continue post 2017. In the Department of Agriculture budget, a line item to finance the enforcement of Regulations such as seeds, fertilizer, pesticides, etc., is included. Under this line item it is foreseen the financial resources to support seed work in the sub-region.

WASP/CORAF financial sustainability: WASP/CORAF has implemented the ECOWAS regional harmonized seed regulation, and set the COASem and ASIWA in a participatory approach, WASP has

supported seed capital reconstitution in different countries after the Ebola threat under ECOWAS mandate, etc. The MTE Team examined if these achievements were sufficient enough to affirm that good strategies were in place to ensure the program sustainability. In the same outlook, the MTE Team analyzed CORAF sustainability considering all its financial challenges and difficulty to coordinate all seed initiatives in the region (Africa Seeds, AGRA, etc.), to ensure broader sustainability of WASP under CAADP and RAIP framework.

WASP was conceived and implemented as a single USAID project, and implemented by CORAF without a clear strategy to bring other funding mechanisms and buy-ins to the table (exit strategy). While ASIWA is a newly created body that objective include to foster fundraising including from the private sector in the seed industry, WASP/CORAF and ECOWAS fall short in designing and implementing a comprehensive communication strategy and fundraising mechanism to sustain the institutions, activities and achievements realized with USAID support. The use of USAID nomenclature (logos, Chief of Party, reporting system, etc.) rather than imbedding clearly WASP to CORAF and use ECOWAS and CORAF nomenclature under the Pillar IV. As there was no clear fundraising approach and exit strategy, this aspect needs to be Improved moving forward in the remaining period of implementation of the project with USAID funds and beyond.

Most of the ECOWAS countries have achieved the Maputo target of investing 10% of the GDP to the Agriculture sector. But the government funding mainly goes to Ministries and Government agencies operating costs, very small is going to direct investments in the agriculture sector, for example seed system. also, the Government funding to the seed system contributes mainly through subsidies that disorganize the seed market and private sector involvement. ECOWAS should work with the Countries to find best ways in improving the use of their contribution to the Agriculture sector and seed and fertilizer system in particular

In conclusion, the USAID-CORAF agreement, in its section on “*Program Sustainability*” (pages 49-50) did not address the institutional and financial sustainability aspects. Rather, it includes only two major points addressing private sector involvement: “(i) *helping the private sector take over the responsibilities of the seed labs and (ii) helping many new private sector agents become accredited as certification agents with the government withdrawal from quality control and certification activities.*” This is not helping the Program Managers at CORAF and WASP to address properly institutional and financial sustainability. They rather oriented them to operational aspects of the involvement of the Private Sector, instead of strategic institutional, appropriateness, and financial sustainability aspects at a broad level. The agreement needs to be revised in those sections and integrate more strategic actions.

The MTE would still want to make specific recommendations to the ECOWAS Commission to:

- ✓ ECOWAS, UEMOA and CILSS should make sure that resources are put aside to ensure a continuation of work of WASP and to approach other donors, other than USAID, and the member countries for support to seed work in West Africa. The final aim is to enlarge the financial and technical base of partners in support of a viable seed system in West Africa.
- ✓ ECOWAS, UEMOA and CILSS should communicate more effectively to the Ministers and Heads of State in the sub-region the positive impact of WASP and how WASP is solving a chronic problem like access to improved seed. ECOWAS, UEMOA and CILSS should inform the other stakeholders involved in the CAADP process, e.g., FARA, NEPAD and the AU about ECOWAS contribution to the solution of access to improved seed in West Africa.
- ✓ CORAF’s general mandate includes networking and support to NARS and NARIs. Moreover, CORAF is at the same time implementing the successful project, WASP. CORAF also has an administrative setting and a scientific team capable of replicating WASP success stories. It is therefore recommended for USAID and ECOWAS to assist CORAF in two concurrent ways:

- a. To continue to support CORAF in reinforcing its institutional capacity so as to allow CORAF to fulfill its general mandate;
- b. To take necessary actions for CORAF and ECOWAS to develop a comprehensive WASP exit strategy and, during the transition period, provide to CORAF the necessary financial support in moving forward.

6.3.4. Successes Ready for Scale-up Post 2017

▪ ***What recommendations are there for strengthening, improving and building upon (scale-up) program successes of WASP sub-activity successes post-2017? Include in your analysis the viability and approach WASP has taken to build supply and/or meet farmer demand for improved seed.***

A major contribution of WASP for the WA seed industry was implementing greater quality control of NARI produced breeder seed, which previously had been not gone through the rigor of “certification”. The higher quality breeder seed now meets ECOWAS seed standards, which is critical in the quality control of foundation and certified seed in the multiplication process. It also assures the ultimate customer: local farmers - that they are buying improved seed for greater yields and resistance to climate change (i.e. early maturing maize) - rather than “grain” sold by unscrupulous traders. It is important that this rigor be maintained by public breeders (NARIs) and along the seed value chain during the production of foundation and certified seed by industry; problems remain with the four required inspections during seed production not being enforced.

WASP continues to give technical expertise to the public breeders and to all the private actors in the seed value chain - through workshops, including seed production and processing – and facilitating business plans essential for profitable SMEs. Business plans are crucial in developing viable businesses and gaining affordable financing through guaranteed, low-interest loans – for the stronger “pull-through” the seed industry needs for economic viability and sustainability. In the long-run, it is more effective to develop sound loan instruments, rather than the weaker “push through” of buying and subsidizing seeds – which is dependent on continued government and donor funding. WASP-led, seed company business plans are currently linked to financial instruments, such as the Central Bank of Nigeria in conjunction with the regional African EcoBank for guaranteed loans.

There are six WASP-led initiatives ready for scale-up.

7. Seed regulation implementation (harmonization of regulations, certification of breeder, foundation and certified seeds and intellectual property right issues);
8. Seed Forecasting Tool – for demand and supply;
9. Private sector production of Foundation and Certified Seed;
10. The WASP Business Model to foster sustainable supply of foundation and certified seed;
11. Regional resiliency through improved seed regulation and trade: Success in the Ebola Initiative Experience;
12. WASP M&E system – to consolidate and replicate.

1. Seed Regulation & Implementation – harmonization regulations, IPRs

This WASP success was facilitated by an improved regional seed framework including the ECOWAS-CILSS-UEMOA Tripartite agreement in process of conclusion, and a favorable policy environment (CAADP, ECOWAP, PAU). That Tripartite agreement will allow Chad and Mauritania to adopt ECOWAS seed Law when it is concluded and will ensure greater scale-up of seed regulation implementation in the WA region and all CILSS countries. It would be reinforced by other existing initiatives, namely, AGRA-PASS, WACCI, AfricaSeeds, etc.

WASP achievements reinforcing the Seed Regulation Implementation highlighted by the stakeholders, which will serve as basis for any scaling-up strategy, include the approaches used to ensure a widely

adopted regional seed regulation, the awareness created in most ECOWAS-UEMOA-CILSS member countries, capacity building activities including the training of seed regulatory agents on variety release, seed quality control and certification, phytosanitary certification, the institutionalization of breeder seed certification through strong partnerships established in different countries, and the regional task force established, thanks to WASP, as a mechanism for the effective implementation of seed regulation.

A scaling-up agenda should integrate more capacity building activities and technical support, including infrastructure and equipment, to address some challenges noted through the WASP M&E system and various stakeholders interviewed during the evaluation, such as the limited human resources and lack of skilled agents as well as the insufficient and inappropriate infrastructure and equipment.

The regional bodies and national governments, their partners and the private sector will need to improve commitment in providing the seed sector with needed support funding, through an improved political will in some countries (e.g. Ghana), along with measures to overcome regional security threats and crises.

For scaling-up, the following are recommended:

- Training in variety release, certification, and phytosanitary regulations.
- Advocating for more funding (both public and private) to support the seed sector with regard to infrastructure, equipment and adequate personnel.

2. Seed Forecasting Tool – for Demand & Supply

WASP has developed a successful **Seed Forecasting Tool** (Sokona et al. 2015. Mainstreaming Seed Demand Forecasting in the Agenda of Private and Public Sector Seed Actors. *Technical WASP Report 2015*) that will streamline the planning and coordination of needed production of breeder, foundation and certified seed to more effectively meet the supply needs of the seed value chain actors. This will greatly enhance the efficiency of PPPs among the breeding units at NARIs and CGIARs to more consistently plan and produce breeder seed – needed by the private sector in the production of foundation and certified seed.

Such a forecasting tool is needed to increase breeder seed production of high value, climate-resilient varieties. More economically resilient PPPs need to be established, particularly since breeder seed production is **much too** dependent on project funding. A greater focus on capacity building of skilled personnel in seed production and quality management, and development of seed business models are critical for long-term institutional and economic sustainability.

For scaling-up, the following are recommended:

- Upscale the seed forecasting mechanism in all target countries;
- NARIs Seed Units to produce breeder seeds as a PPP - business venture;
- Facilitate post-graduate training to create a critical mass of seed scientists.

3. Private sector production of Foundation and Certified Seed

The ECOWAS seed regulation allows the private sector to produce Foundation Seed. While some NARIs and CGIARs, through business incubator programs, have started companies to produce Foundation Seed as a stop-gap measure for inadequate seed supply - it is critical that industry take “ownership” in producing Foundation Seed for a viable and resilient seed sector.

Through capacity building and establishing better PPPs, WASP has positioned the private sector to be the primary actor in producing both Foundation and Certified Seed. WASP’s successful push in developing the Seed Forecasting Tool and facilitating the seed industry to develop and utilize business plans for better access to finance have been essential. The challenges of inadequately skilled personnel, inadequate seed processing equipment and storage, inadequate irrigation and land for “double cropping seed

production cycles”, and government policies that still interfere with private sector development – need to be addressed.

For scaling-up, the following are recommended:

- Continue advocacy for liberalization of foundation seed production in reluctant countries;
- Strengthen the technical and infrastructural capacities of seed enterprises to produce foundation seed;
- Capitalize on existing mechanisms to operate a sustainable revolving fund to support the seed sector including access to credit and fertilizers.

4. The WASP Business Model for Sustainable Seed Supply: Breeder, Foundation, Certified

WASP has developed a template for business plans/ models for seed companies. Successful industries rely on sound business planning. Seed producers have used WASP initiated plans/ models that are personally customized to help establish new seed business ventures and procure financing. Business models/plans are critical for the seed industry to procure loans at more favorable rates from commercial banks and micro-finance institutions (MFIs).

WASP’s development of ASIWA and WASIX are essential for organizing the seed industry and making it more attractive to lenders. Challenges include the need for developing more exhaustive business models for crops in specific zones, need for rigorous seed marketing studies, getting lenders to recognize the “business” of seed production and its growth potential, better organization the national seed trade associations, restrictions of high interest rates and lack of accredited seed labs for testing seed quality

For scaling-up, the following are recommended:

- Conduct global seed market study to support the development of business models;
- Propagate the business models developed among ASIWA stakeholders;
- Bring more financial institutions on board to fund the private companies’ business plans.

5. Regional resiliency through improved seed regulation and trade: Success in the Ebola Initiative Experience

WASP proved its mettle in the Ebola Initiative Experience - demonstrating regional resiliency through improved seed regulation and trade. Regional regulation on seed movement was tested. Challenges in cross-border seed trade were identified, seed companies from different ECOWAS countries were selling and shipping seed across trans-boarders – and establishing new customers.

Most importantly: WA regional seed resiliency helped mitigate a regional crisis – the system was tested and lessons were learned. Major hurdles to be addressed include: inadequate adherence to the ECOWAS and UEMOA protocols for free movement of people and goods; excessive restrictions at borders, resulting in delay of seed delivery, deterioration of seed quality, and increased costs and poor road networks.

For scaling-up, the following are recommended:

- Greater compliance with ECOWAS and UEMOA protocols for free movement of goods and people;
- Conduct global seed market studies to support the development of business models;
- Bring more financial institutions on board to fund the private companies’ business plans.

6. WASP M&E system – to consolidate and replicate.

WASP developed a very effective Performance Management Plan (PMP) that was adapted by CORAF to enhance their M&E system. The WASP M&E model was subsequently replicated by IFDC's WAFP M&E. Consequently, CORAF has a much-improved M&E system with better data collection and analysis tools, and country teams and implementing partners trained.

Challenges include: completion of the data collection protocols at country level, the scheduled on-line database has not been completed, better prioritization of budget planning and monitoring.

For scaling-up, the following are recommended:

- Review the PMP and data collection protocols.
- Plan and conduct special studies with focus on impact indicators.
- Train regional staff members, country teams and partners on the online M&E system.

7. CONCLUSION AND WAY FORWARD

7.1. Conclusion

Through the awareness created in most ECOWAS-UEMOA-CILSS member states, WASP was able to achieve wide adoption of the regional seed regulation. A regional task-force was established as a mechanism for the effective implementation of the seed regulation. The MTE Team noted increased breeder seed production in WA through the WASP support, and CORAF through WASP, was able to establish strong partnerships with breeding units at NARIs and CGIARs for breeder seed production. New resilient varieties were promoted and capacities (human, logistic, laboratory) of seed units were strengthened.

WASP has successfully strengthened national seed trade associations, and established at regional level the ASIWA, a hub of knowledge and information sharing in the seed industry in WA. WASP is developing the WA seed market through demand creation activities and electronic platform, namely the WASIX. WASP developed a tool forecasting breeder, foundation and certified seed demand, production and supply for improved seed business in the WA region. WASP conducted relevant advocacy on the liberalization of foundation seed production by the private sector, and private sector companies producing foundation seed are supported by WASP. WASP developed templates for seed business plan and supported seed companies in the development of their business plans. Extensive trainings were provided to seed companies in business management. Also, WASP is facilitating seed companies access to commercial banks and Micro Finance Institutions (MFIs).

Through the Ebola Initiative, as part of the regional resiliency to various threats, the regional regulation on seed movement was tested by WASP, challenges in cross-border seed trade identified and solutions proposed as the seed systems were being rebuilt in affected countries. Also, WASP developed suitable varieties to agro-ecological conditions in affected countries supplied through an effective CORAF regional coordination. In addition, WASP developed model contracts for regional seed trade and for crises management.

Through the WASP initiated M&E System, a Performance Management Plan (PMP) was designed and is being implemented successfully, improved data collection and analysis tools are in place, country teams and implementing partners were trained in Results Based Management and M&E, and IFDC's WAFP M&E was inspired by the WASP M&E model.

Despite these achievements, there are still challenges in the seed industry being faced by WASP. There are inadequate skilled personnel in seed production and quality management, and inadequate skilled personnel in private sector – including seed scientists and breeders. The NARIs and CGIARs are still facing insufficient and inappropriate infrastructure and equipment.

All the WASP results are not being fully adopted by the beneficiaries, some countries are not using the Seed Forecasting Tool. In addition, the breeder seed production is too dependent on the project funding, and there is a lack of business approach in the production and supply of breeder seed.

The attractiveness of foundation and certified seed industry is not yet fully appreciated by investors. Exhaustive business models for specific crops in specific zones are not yet established and there are high interest rates and unfavorable loan conditions. At the same time, the national seed trade associations are not yet fully functional.

The MTE Team noted a low national commitment to provide seed sector with necessary support funding and a lack of political will in some countries, as well as a reluctance of the public sector in some countries to allow the private sector to produce foundation seed. Also, the MTE team noted that the current conditions at CORAF do not motivate and retain highly skilled personnel.

The Ebola Initiative implementation by WASP, showed inadequate adherence to the ECOWAS and UEMOA protocols for free movement of persons and goods. There is still excessive restriction at borders, which results in delay in delivery of seed, quality deterioration and increased cost. Immense delays in administrative procedures for the movement of seeds and regional trade are noted.

Opportunities exist to consolidate and upscale WASP results and overcome these challenges in WA and CILSS countries. ECOWAS-CILSS-UEMOA Tripartite agreement in process of conclusion will allow Chad and Mauritania to adopt the ECOWAS seed regulation. WASP can partner with existing initiatives (AGRA-PASS, WACCI, AfricaSeeds, etc.) and universities in West Africa, to consolidate and expand its results. There is a growing need for improved seeds among producers that can boost the seed market. ECOWAP (NAIP, RAIP) is willing to support the seed sector and the Private Bank to fund seed businesses. WASP is expanding an improved seed market through partnerships and high awareness of various seed stakeholders.

For enhancing improved seed and agricultural productivity in WA, institutional programmatic relationships and issues for the remainder of WASP and beyond, the following are noted: 1) WASP objectives and results are well aligned with CORAF mandates and contributing to CORAF organizational results; 2) Likewise, the synergy between WASP and WAAPP has been instrumental in improving the efficiency and achievements of WASP.

7.2. The Way Forward

1. Ensure that West Africa Seed stakeholders and programs work together in greater synergy. It is unacceptable that seed actors in WA are not collaborating and programs continue “doing their own thing” – particularly in a time of limited resources, poor agricultural productivity, a population doubling in 20 years, and with WA seed actors acknowledging the importance of seed systems for agriculture and food security.

The West Africa seed system is complex and characterized by weaknesses in capacity to leverage funds and harmonize approaches. ECOWAS should better coordinate the seed system in WA and build on WASP successes. Core partners such as AGRA, FARA, Africa Seeds and CORAF are working in silos with their specific activities. There is need to improve partnerships of these different mechanisms for the benefit of an effective seed industry in WA with a greater coordination role by CORAF, which is responsible for CAADP Pillar IV implementation. ECOWAS should facilitate a regional dialogue between mechanisms and donors for improved coordination, partnership and funding.

ECOWAS needs to fix the “silo problem” of seed in the region – particularly if CORAF is to be the conduit for ECOWAS for Seed Systems in WA. ECOWAS and CORAF, as enablers, need to facilitate a strategic alignment with institutional and ***technical*** MOUs, sharing of resources and talents among the seed actors, including but not limited to WASP, AGRA/PASS, AGRA –SSTP, WAAPP (World Bank), FAO, AfricaSeeds, etc.

Recommendation: ECOWAS should take the necessary actions for better synergy between WASP and AGRA (SSTP, AGRA PASS), including MOUs at the technical level between CORAF/WASP and AGRA) – and ensure strategic alignment between WASP/CORAF, AGRA, WAAPP and FAO in the West Africa seed industry.

2. Facilitate better collaboration between WASP/CORAF and WAFP/IFDC. For integration of seed and fertilizer for improved and climate-smart and resilient seed production, ECOWAS should integrate

fertilizer use in seed production in the WASP/CORAF mechanism and facilitate the collaboration with WAFP for improved agriculture productivity. While the COP of WASP and new COP of WAFP want to better collaborate, a technical MOU is required to do so (23June2016 Interview, COP, WA Fertilizer Program-WAFP; 7June2016 Interview, M&E, Dep. COP, WAFP; and numerous interviews with WASP COP). This is more than an “administrative problem”, rather a WA bureaucracy/silo mentality between CORAF and IFDC for a “technical MOU needed” for WASP and WAFP to better collaborate. And both programs are funded by USAID under the ECOWAS umbrella.

WASP and WAFP should not be combined. CORAF needs the technical expertise & management of IFDC for fertilizer under the ECOWAS umbrella. IFDC is internationally known and respected for its fertilizer technology delivery expertise (which CORAF needs) and has considerable experience in WA. While the agriculture inputs of seed and fertilizer are needed as a “package”, the goals of WASP and WAFP are different. The ECOWAS Director of Agriculture and Rural Development was opposed to a merger of WASP/WAFP; one of his concerns was that the fertilizer program would overshadow the seed program (1June2016 Interview ECOWAS –Director of Agriculture & Rural Development).

Recommendation: ECOWAS and USAID need to facilitate a dialogue between IFDC and CORAF for better synergism needed between WASP and WAFP on fertilizer use in breeder, foundation and certified seed production. For long-term growth of both input sectors, a consortium of seed and fertilizer industries are need for future directions - working with WASP and WAFP – since commercialization (R4 in WASP) are common goals of both programs. The consortium would include WASP/CORAF, WAFP/IFDC, industry seed actors, ROPPA, NASTAs, ASIWA, AFSTA, AFAP-African Fertilizer & Agribusiness Partnership, etc.

3. Address the disconnect between ECOWAS and WASP/CORAF to move towards a non-projectized regionally owned seed program. While ECOWAS approached USAID with a CILSS and UEMOA consortium to initiate both WASP and WAFP - ECOWAS now feels little ownership of WASP, which to them has evolved into a CORAF-USAID project that USAID will continue funding. In a 1June2016 interview with the ECOWAS –Director of Agriculture & Rural Development & UEMOA Director of Agriculture & Rural Development and the former M&E of WASP - their consensus was: WASP is looked at by industry, ECOWAS, other regional players (CILSS, UEMOA) and other Seed groups/players as another stand-alone USAID-funded “seed project” with CORAF – rather than the regional “SEED PROGRAM” that ECOWAS and USAID had envisioned it to be with WA Regional “ownership”. ECOWAS currently still needs to build a future sustainable “Plan B” for WASP after USAID funding ends.

Other comments in the 1June2016 Interview with the ECOWAS –Director of Agriculture & Rural Development & UEMOA Director of Agriculture & Rural Development – ECOWAS adopts the AWPB-annual work plan budget, assigns the daily management to CORAF; yet ECOWAS cannot take any decisions concerning seeds without passing through COASem; ECOWAS would like to receive from CORAF - policy briefs, success stories, case studies, etc. to allow ECOWAS to show their MOA – Ministries of Agriculture and Presidents of commissions that progress is being made; the visibility (marketing/branding) of ECOWAS/UEMOA/CILSS is missing compared to USAID logos and labeled documents.

Recommendation: Communication among the actors needs to dramatically improve. USAID should support/facilitate WASP/CORAF interaction with ECOWAS/UEMOA/CILSS, and have the actors develop a strategic plan for development of the WA Seed industry and its economic sustainability – with many more players needed than USAID as a primary sponsor.

4. Assemble a WA consortium for planning a WASP Phase II with heavy Representation of the Private Sector. Greater private sector participation of the seed industry in seed system development is critical. Clearly, WASP is resulting in positive achievements for the nascent private sector (ASIWA, WASIX, support of Foundation and Certified Seed production and marketing).

Recommendations:

WA Consortium needs to be developed now for the planning/development of a WASP-phase II. The consortium should include: ASIWA, NASTA, ROPPA; other seed players – consider marketing Corporate Social Responsibility Opportunities (CSR): Monsanto, Syngenta, DuPont, Groupe Limagrain, PANAR Seeds (South Africa); and other African seed actors: AGRA/PASS, AGRA SSTP, WAAPP (World Bank), FAO, Africa Seeds, etc.

ECOWAS through its Task Force should facilitate the integration of private partners into WASP for a better implementation of the R4. This is possible through the existing sub-grantee approach WASP/CORAF used with NARIs and CGIARs that could be opened to private partners.

5. Enhance WASP/CORAF Sustainability. WASP/CORAF is not financially sustainable as a stand-alone seed project funded by USAID. There needs to be a better synergism and strategic alignment between WASP and a consortium of ECOWAS CILSS, UEMOA, Industry (seed, fertilizer, other agriculture input and larger seed industry players, ASIWA, NASTA and ROPPA) and other seed organization players for additional funds mobilization. WASP/CORAF have had many successes: WASP/CORAF has implemented the ECOWAS regional harmonized seed regulation, and established COASem and ASIWA through a participatory approach, WASP has supported seed capital reconstitution in different countries after the Ebola threat under ECOWAS mandate, etc.

However, the Cooperative Agreement (CA) No. AID-624-A-12-00007 dated August 1, 2012 does not mention any “**Sustainability Plan**” among the required reports listed on pages 6 through 8. The various Assistance Modifications have not related to deliverables. However, the original CA and the Assistance Modification number 7 as of February 2, 2016, state sustainability concerns on pages 49 and 50 of the former document, and pages 12 and 13 of the latter document. *Strengthening the relationships and establishing trust between all stakeholders is fundamental to forming durable relationships that are market-driven, mutually reinforcing, and profitable.*

Recommendation1: Development, implementation, monitoring and assessment of a sustainability plan are prerequisites for subsequent actions to enhance the sustainability of WASP/CORAF. There must be a comprehensive and systematic stand-alone sustainability plan, which includes elements such as decisions about approach (phase-out and gradual phase-over), explicit benchmarks and timelines for progress, clear allocation of responsibilities, graduation criteria and progressive withdrawal of project support, and capacity building of private seed sector and government organizations to progressively take up the management and provision of project services. In so doing, sustainability will be included as an integral part of any future program design and embedded throughout implementation. Again, one milestone to be mindful of must be the development of a comprehensive and systematic stand-alone sustainability plan.

Recommendation2: While the Average Global Achievement rate was high (106%) for WASP, a glaring weakness was private sector access to loans, which only had a 14% achievement rate. For a successful seed industry in WA, seed producers require a “package-approach” of high quality seed, fertilizer, irrigation (needed for double-cropping and climate-resilience), other GAPs inputs, market access and micro-finance, guaranteed/low-interest loans to create the “pull-through” for a sustainable seed industry. There is need to improve access to credit for seed companies with lower rates and to develop/enhance seed associations for “cooperative benefits” to their members.

Financial modalities that need to be addressed include: micro-finance, guaranteed/low-interest loans critical for seed industry. Programs for small-holder seed producers include AGRA, WAAPP, the new World Bank program on commercialization of agriculture that has matching funds, etc. **WASP** is on the right path with development of its **business plans** (one of the six recommended WASP scalable programs) facilitating seed companies to access commercial banks and micro-finance institutions (MFIs).

In other agricultural industries in Africa and the world, the development of agricultural cooperatives can give members access to cheaper agricultural inputs bought in bulk, mechanization and processing equipment, and cooperative-guaranteed loans. These are potential opportunities for the various seed associations AFSTA, ASIWA, NASTAs, ROPPA, etc. to develop similar “cooperative benefits” for their members as they start to gain traction.

For small-holder seed producers, there are also the opportunities of *farmer savings groups* that are highly successful in parts of Africa, Latin American and Asia – offering a sharing of resources and low-cost microfinance.

PPP – Public-Private-Partnerships. The MTE Report gives a number of examples of PPP.

- ✓ Nigerian Rice processors pre-finance growers for seed, other ag inputs, which the growers pay off at harvest. A suggestion by the Nigerian WASP Specialist was to have the processors require higher value seed (which drives seed producer demand, increases yield and profitability of all players – and include it as part of the package) [1June2016 Interview, Nigeria WASP Seed Specialist]
- ✓ There are PPP with NARIs in Senegal, Mali, Nigeria where seed producers sign partially pre-paid contracts with the NARIs for guaranteed breeder seed for them to use as foundation and certified seed; this brings immediate cash flow to the NARIs to support breeder seed production and guarantees the seed industry that they will have improved breeder seed to bulk-up and use for foundations and certified seed production. The processing industry in Mali and Senegal signs contracts with certified seed producers (see details in Report)
- ✓ Volta Seed growers in Ghana have PPP with ag-input company, M&B Seed & Agricultural Services, offering packages of seed, fertilizer, other inputs, tied to the market so that the front-end “loans” can be paid back at harvest. In Mali, the WASP seed specialist, through WAAPP, is supplying the SME vegetable industry (see more detail in Report).
- ✓ In Kenya, a successful “package approach” is the Amiran- “Farmer Kits” for high value, vegetable-field, greenhouse production using drip-irrigation systems; players include Swiss Re (reinsurance), microfinance via banks with guaranteed loans (Kenyan government and banking system support), high value seed, GAPs, and other inputs, paid Ag extension assistance-value-chain approach in Kenya. Loans are low interest, payable over a 2-3-year period based on harvest time; program is geared to young growers, 35-years or younger
<http://www.amirankenya.com/amiran-farmers-kit/>
- ✓ **Bottom line:** multiple, niche-approaches needed, no panacea, “one shoe-size fits all” does not work – but approaches must be tied to markets.

Opportunities with High Value Niche Crops, Including Horticulture. The agricultural growth opportunities for smaller holder farmers in WA are in servicing growing urban and peri-urban markets. By 2050, two of the six largest world cities will be in WA and Central Africa. To better enable the WA seed industry, WASP should consider the integration of high value vegetable seed production within the ECOWAP priority crops. ECOWAS can capitalize on growth opportunities to serve growing urban and peri-urban markets with niche, vegetable crops that can be intensively grown under small acreage, bring cash-flow to small-holders, enhance nutrition, food security, and favor women growers. Collaborative opportunities exist with the USAID Horticulture Innovation Lab, AVRDC and AGRA-PASS. The use of hybrid seed and opportunities of IPR (which are common in other parts of Africa) will greatly enhance the growth of the WA seed industry.

8. RECOMMENDATIONS AND INSTITUTIONS RESPONSIBLE FOR ADDRESSING OR LEADING THE ACTION

RECOMMENDATION	RESPONSIBLE INSTITUTION
In the short-term:	
Select at least one indicator to track IR 1, <i>Alliance for seed industry in WA for effective coordination sustained</i>	WASP/CORAF
Consolidate and replicate WASP M&E system	CORAF/ECOWAS
Develop a comprehensive WASP exit strategy/sustainability plan	CORAF/ECOWAS
Scale up WASP business model for sustainable seed supply	ECOWAS
Improve the reinforcement of capacity of national organizations in charge of seed quality control and seed certification	WASP/CORAF
Sign the acknowledgement page of the regional seed catalogue to make it an official document and allow for it to be uploaded onto the WASIX website	UEMOA Commission
Make ASIWA and COASem functional by implementing critical actions such as establishment and functioning of their Secretariats and implementation of their action plans (<i>detailed actions on page 50 of the report</i>)	WASP/CORAF/ECOWAS/ASIWA/COASem
Make ASIWA and NASTA fully operational by providing more training, building capacity, facilitating consultations, and improving capabilities to leverage funds in financing the private sector seed industry	WASP/CORAF/ECOWAS/ASIWA/NASTA
Maintain CORAF leadership in implementing WASP	ECOWAS/CORAF
Sign a Tri-partite Agreement to allow Mauritania and Chad to publish the Regulation in their official journal and have the Regulation enter in vigor in these two countries	ECOWAS, UEMOA, and CILSS

RECOMMENDATION	RESPONSIBLE INSTITUTION
Give responsibility in fund disbursement to the WASP COP at regional level and Seed Specialist at national by granting them a “B” level signatory	CORAF
Consolidate support of NARIs and CGIAR centers for Breeder Seed production by, for instance, meeting their input needs (e.g., fertilizer)	WASP/CORAF
Improve support to the private sector in Foundation and Certified Seed production. For instance, the private sector should be supported to undertake more demonstrations in their out-grower schemes to show the benefit in using the recommended rates of fertilizer and other GAPs in the production of Foundation and Certified seed	WASP/CORAF
Ensure that WASP and WAFP are synergized for better coordination of supports to improved use of seed and fertilizer	USAID and ECOWAS/WASP/WAFP
Develop a fund-raising plan to leverage investment funds for WASP activities to support the seed industry, including funding from bilateral Missions, the private sector and other donors	CORAF
Take the necessary actions for better synergy between WASP and AGRA, for example, signing MOUs at the technical level.	CORAF/ECOWAS/WASP/AGRA
Scale up Seed fairs to countries not currently using them	WASP/CORAF
Accelerate training on the use of the Electronic Exchange WASIX throughout target countries	WASP/CORAF
Make the WASIX fully functional and accessible	WASP/CORAF
Entrust ASIWA with the management of WASIX	WASP/CORAF
Develop a plan of action for scaling up/replicating WASP activities as part of the WASP exit strategy that will call for a sustainable funding mechanism for WASP activities	CORAF
Communicate more effectively to the Ministers and Heads of State in the sub-region the positive impact of WASP and how WASP is solving a chronic problem like access to improved seed	ECOWAS, UEMOA, and CILSS
Inform the other stakeholders involved in the CAADP process, e.g., FARA, NEPAD and the AU about ECOWAS	ECOWAS, UEMOA, and CILSS

RECOMMENDATION	RESPONSIBLE INSTITUTION
contribution to the solution of access to improved seed in West Africa	
Continue to support CORAF in reinforcing its institutional capacity so as to allow CORAF to fulfill its general mandate	USAID and ECOWAS
Provide to CORAF the necessary financial support in transitioning from WASP	ECOWAS
In the medium-term:	
Find a more sustainable approach with countries to ensure the reinforcement of capacity of national organizations in charge of seed quality control and seed certification through greater involvement of the private sector	CORAF/ECOWAS
Advocate for graduate training programs to develop the next generation of critically needed seed technologists and plant breeders for both the WA public and private seed sector	ECOWAS, UEMOA, and CILSS
Define a strong portfolio management system to ensure that all programs including WASP will continue to be implemented efficiently at any time of their life cycle	CORAF
Facilitate the development of a funding mechanism to establish a loan-guarantee scheme to support private seed value chain actors	ECOWAS and UEMOA
Facilitate PPPs to improve seed control and certification through greater private sector participation	ECOWAS and UEMOA
Scale up PPPs and expand into other countries, using the Nigeria success story under the GESS and Senegal PPP in controlling foundation and certified seed production	CORAF/ECOWAS
Entrust ROPPA and AFSTA with the implementation of the WASP components related to the private sector (R4) because of their comparative advantages in dealing with the private sector	CORAF/ROPPA/AFSTA
Make sure that resources are put aside to ensure a continuation of work of WASP	ECOWAS, UEMOA, and CILSS
Take the necessary actions for better strategic alignment between the actors in the support of West Africa seed industry (e.g., WASP/CORAF, AGRA, WAAPP and	ECOWAS

RECOMMENDATION	RESPONSIBLE INSTITUTION
FAO).	
In the long-term:	
Enlarge the financial and technical base of partners in support of a viable seed system in West Africa by approaching other donors, other than USAID, and the member countries for support to seed work in West Africa	ECOWAS, UEMOA, and CILSS

9. RESPONSE TO COMMENTS FROM WASP PARTNERS ON THE MTE REPORT

Reviewer(s) /Institution(s)	Comment	Section/ Location	ASSESS Response /Action Taken
Harold Roy-Macauley; Director General of AfricaRice	In view of the growing strategic importance of rice in West Africa, more than any other food crop for that matter; I would have imagined that rice would also have featured on the cover photo. If you need a beautiful photo on that, AfricaRice can provide you with one.	General	Rice was not omitted in the cover photo but not prominently shown (like maize and cowpea) as one would have expected in view of the strategic importance of rice in West Africa and one of the major crops of which the WASP is charged to make significant contribution towards increased seed production during the project period. In the photo, we have de-husked rice grains in the top row, adjacent to sorghum, and about seven unhusked rice collections in the lower row. We take note of this and would give rice equal prominence in subsequent presentations to USAID WA and WASP.
Harold Roy-Macauley; Director General of AfricaRice	Whilst these recommendations are many and relevant with respect to the way forward with WASP, they do not address specific institutions and seem to be hanging loose; which might render their implementation challenging. Moreover, there has been no prioritization of these recommendations, which should allow WASP, in the very little time left and with relatively limited funds remaining, to focus on the essential issues.	General	Refer to section 8 added to the document which shows key recommendations and institutions responsible for implementing them.

Reviewer(s) /Institution(s)	Comment	Section/ Location	ASSESS Response /Action Taken
Harold Roy-Macauley; Director General of AfricaRice	The assessment has, however, identified six WASP-led initiatives ready for scale-up during the remaining period of implementation of the project and beyond. This seems to be a good way forward. WASP needs however to remain focused. I would, therefore, propose that the assessment makes a concrete proposal on the way forward to WASP/CORAF/WE CARD to address the lowest hanging fruits amongst these six initiatives, which would attract investments and serve as a basis for the sustainability of the WASP within CORAF/WE CARD model, and on which the remaining resources could be spent. As such I would suggest the following two initiatives for scaling up (to be assessed by the evaluation team): 1. The WASP Business Model to foster the sustainable supply of Foundation and Certified Seed. 2. WASP M&E system – to consolidate and replicate.	General	The six WASP-led initiatives that were listed as ready for scale-up during the remaining period of the project are indeed the lowest hanging fruits. We concur with the Reviewer that WASP should stay focused on achieving its target of 25% of sales demand for maize and rice in the ECOWAS region by 2017. This requires a Business model to foster sustainable supply of foundation and certified seed with private sector involvement. The project management can, however, work on the sequencing or critical path according to their resources.
Sie Moussa And Amadou Beye ⁴ , AfricaRice	3. Address the disconnection between ECOWAS and WASP/CORAF to move towards a non-project and regionally owned seed	General	The expression used in the report ‘disconnect’ is misunderstood and misconstrued. All of ECOWAS, UEMOA and CILSS are fully engaged in the implementation of WASP. What was meant with the word ‘disconnect’ was more for

⁴ AfricaRice Staff involved in the implementation of WASP

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	program. The report stresses the lack of ownership of the WASP program by the institutions in charge of the promotion of Harmonized regional seed rules and regulations. However, it would be more appropriate to elaborate proposals targeting the sustainability of the project results or to involve an external investigator. <u>Recommendation:</u> The WASP should consider creating more awareness about the project results to State and administrative authorities and seek for their direct involvement in the elaboration of the next phase. The WASP Project should also look for more collaboration with regional organizations like ECOWAS, WAEMU and CILSS and national services in charge of seed quality control, training and information dissemination.		WASP to communicate better with ECOWAS, UEMOA and CILSS especially with regards to production of policy briefs for their authorities and also to put the ECOWAS sticker on the inventory to increase ECOWAS's visibility. On this last point, the visibility of USAID compared to that of ECOWAS is far greater than those of ECOWAS, UEMOA and CILSS.
Sie Moussa And Amadou Beye, AfricaRice	Major constraints of the seed industry.... 2. Limited technical and financial capacity of plant breeders; This is a very important point: In fact, this formed the basis of the creation by AfricaRice of the Breeding Task Force, which includes 30 countries and addresses “a new generation of breeders”. The WASP program has encouraged breeders to evolve in their breeding operations to make breeding more adapted	Section 3.1	The assessment wanted to highlight the limited amounts of resources getting to the breeders from their national budgets. We lament the insufficient allocations to the breeders. The assessment made the case for the breeders to earn extra income from their work through IPR and patents through which they can receive royalties for the varieties they produce. Secondly, the breeders in the NARS are few and getting older. The assessment wanted to highlight the need to train a young cadre of Plant Breeders to support the few ageing breeders for all commodity crops. The report emphasized this need because the numbers are few in all the countries surveyed, often

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	to the emerging challenges. WASP has supported this approach through the Africa Wide Rice Breeding Task Force through developing (i) adaptive research involving the use of small production plots for nucleus seeds trials and (ii) advanced seed production programs of very few and the most promising elite varieties (ready for dissemination).		with one or two Breeders handling multiple crops.
Sie Moussa And Amadou Beye, AfricaRice	3.2. WASP and the Seed Industry in West Africa The public sector supports the seed sector in different ways, notably by carrying out research in breeding and developing varieties, by arranging and subsidizing seed quality controls or seed promotion and by protecting breeders' rights: <i>This is not the case for the WASP Program</i>	Section 3.2	Most countries don't have IPR (Intellectual Property Right) legislation in place which makes it difficult to protect breeders' rights. This needs to be addressed by the countries with the breeders pushing from within. ECOWAS has regulation but it's not focused on breeders' rights. The <i>Règlement C/REG.4/4./02 relatif à l'adoption d'un certificat d'origine des produits originaires de la Communauté</i> is the closest to recognizing patent rights. It needs to be strengthened in the future.
Sie Moussa And Amadou Beye, AfricaRice	Table 3: Organizations and stakeholders met by country: It is regrettable that Côte d'Ivoire was not among the countries visited by the evaluation team. It is also true for Burkina Faso that invested a lot in the seed business: NAFASO provided seed to Nigeria and Ebola affected countries (Guinea, Liberia, Sierra Leone). In the case of Mali, it is regrettable that IER was not visited.	Table 3	The assessment team was unable to visit all 7 countries, given the constraints of time and logistics. The volume of data gathered from the four countries was sufficient and representative for a fair assessment of the performance of the WASP. Even though the team did not visit IER in Mali, the WASP's National Seed Specialist was able to assemble a cross section of the seed sector actors, including staff of IER, for interaction with the Team. In addition, the IARCs that work with Cote d'Ivoire and Burkina Faso provided us data pertinent to these countries and the breeder seed supplied to them. The MTE team took necessary measures (see approach) for the sample it drew to be a representative one and the expressed opinions reflects ideas from a wide range of stakeholders.

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	Table 3: Organizations and stakeholders met by country: Moreover, the challenges posed at the borders have not featured in the report, while this was a serious bottleneck for seed movements from one country to another.	Table 3	Our report recognizes this challenge as real and a serious bottleneck to seed movement across borders. However, with as many as 12 ECOWAS Member states that have now ratified the Harmonized Regional Seed Regulations, with the support of USAID WA and WASP, the challenge is expected to ease up and allow cross-border movement of seeds. It is anticipated that Governments that have ratified the Regional Regulations will adhere to the tenets of free trade as stipulated in the Regulations, in order for member states to derive the maximum benefit from reduced cost of trading seed and encourage economies of scale in seed production. In addition, the team recommends special studies to be conducted on the corridors to help address the bottlenecks.
Sie Moussa And Amadou Beye, AfricaRice	R4: Supply of Quality Foundation and Certified Seed by Private Sector Increased (Table 11.) In 2015, WASP supported 34% of the Foundation Seed supply by the private seed sector in the seven focus-countries. Five new rice varieties from AfricaRice Center (ARICA 1 to 5) are being promoted in Burkina Faso, Nigeria and Senegal, led by private seed enterprises.	Table 11, Page 38	The assessment captures this as well. The team was informed by AfricaRice Center in St. Louis, Senegal and the NCRI when we visited them in Nigeria. In Nigeria, the ARICA varieties are given localized names (Faro 44, 52, 61, etc.) and in Senegal they are referred to as Sahel 108 and Sahel 134, etc. Also, the correction in the designation of the five new rice varieties from AfricaRice Center as ARICA 1 to 5 and NOT NERICA 1 to 5 is noted. This has been corrected in the report.
Sie Moussa And Amadou Beye, AfricaRice	Unable to produce the Foundation Seed, GLDB sub-contracted the production of Foundation Seed to CSIR-SARI. This is another case of violation of the Harmonized Regional Seed Regulation. The production of Foundation & Certified Seed is reserved to	Page 38	This is true and in future must be avoided. We note further that the agreement was for a one-time activity in a year when GLDB did not have the resources to produce the needed rice seed. At that time, Ghana's parliament had not ratified the Harmonized Regional Seed Regulation. Now that Ghana has ratified the Regulations, and with the growing number of private seed enterprises, it is expected that the NARIs will concentrate on Breeder seed production, while the private

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	the private sector; therefore, GLDB should not have sub-contracted the production of foundation and certified seeds to CSIR-SARI (the NARI)		sector takes up the production of Foundation and Certified seed.
Sie Moussa And Amadou Beye, AfricaRice	Summary: The Program assumptions remain valid and additional ones are needed to integrate new developments Furthermore, based on MTE Team meetings with stakeholders, the following needs emerged: a.) the need to invest in breeding climate smart varieties This is a strong statement but the evaluators have not mentioned the accomplishments in this area. For instance, AfricaRice developed smart varieties like ARICAs that will tolerate certain stresses such as drought, submersion, salinity, iron toxicity, cold, etc.	Page 38	The ARICAs are mentioned in the report (They were mistakenly captured as NERICAs in the report). When the team was in Senegal and Nigeria, we were informed that AfricaRice Center provided these varieties to them. However, they were not referred to as Climate Smart <i>per se</i> and that explains why the report didn't reflect it either.
Sie Moussa And Amadou Beye, AfricaRice	Areas of WASP performance that require USAID attention 3. Strengthening achievements in production of breeder, foundation and certified seed to satisfy the regional demand. The velocity of varietal turnover is very low in West Africa, meaning the average age of released varieties is often 20 years or more. Great improvements are being made in this area. For example, between 2011 and 2016, AfricaRice has provided	Page 41	We support the suggestion that WASP must promote further seed increase and trials in the region and make the new varieties accessible to farmers. The NARs work with these varieties must be publicized and the farmers' reaction also must be captured and publicized. This is how the visibility will be increased for the IARCs interventions in the countries. So, not just WASP but the IARCs and NARs themselves must invest in increasing the visibility of their interventions.

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	technical support to countries that has led to the release of more than 70 new varieties in WCA, including 18 ARICAs. WASP must help to promote the release of these varieties through regional trials by ensuring the availability of seeds of varieties most demanded by the market.		
Sie Moussa And Amadou Beye, AfricaRice	The MTE Team recommends R5. WASP should consolidate its support to NARIs, CGIARs for breeder seed production, and improve its support to the private sector in foundation and certified seed production. The support should not only be limited to the production of breeder seeds but should also include breeding activities.	Page 42	The receipts from the sale of the breeder seed to WASP is what needs to be utilized more efficiently by the IARCs and NARs. The extra income they receive should allow them to support all breeding activities. In addition, WASP provided training and equipment to few NARs just to increase their capacities.
	6.2.2. Integration of Fertilizer constraint in WASP approach The Agronomy Task Force established by AfricaRice provides a solution to the implementation of this recommendation.	Section 6.2.2	What is the solution? Can AfricaRice Center elaborate more on what the solution is? We recommend AfricaRice to share this solution during the WASP MTE learning event and CORAF/WASP to integrate this in the learning event SOW.
Sie Moussa And Amadou Beye, AfricaRice	6.3.2. Scale-up of CORAF Support for Breeder Seeds through NARIs in WA Is it reasonable or not (and why) to expect CORAF to replicate/scale the WASP demonstrated model of capacity support for breeder seeds throughout the NARIs in the West Africa region?	Section 6.3.2	There is a recommendation to that effect addressed to WASP and CORAF and ECOWAS. Further clarification is provided below: It is reasonable to expect CORAF to replicate or scale up the WASP model of capacity support for breeder seed throughout the NARIs in the West Africa region because, over a 3-year period, it led to the enhancement of knowledge and skills of as

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	The authors did not make any concrete proposal		many as 830 NARS personnel, of which 20% were female. The model also provided sets of equipment (laboratory and processing) to 5 NARS and achieved a steady increase in breeder seed production from 41 MT in 2013, 54.6 MT in 2014 and then 77.8 MT in 2015. These are remarkable achievements that need to be replicated by CORAF in order to meet the seed demand of the region.
Sie Moussa And Amadou Beye, AfricaRice	Seed Regulation & Implementation – harmonization regulations, IPRs Intellectual property is poorly understood. The VOC is available but is hardly used. Public institutions fail to add value to the benefits of IPRs (their status does not allow them to) while the private sector is dynamic only on horticulture. The creation of external structures, such as spin-offs working with NARIs and CGIAR Centers could help to make progress in this field. It should be noted that IPRs helps not only help to recover royalties but could also help to promote recognition.	Page 57	Agreed. The recommendation regarding IPRs is to strengthen the existing legislations but go even further to focus on variety development and use.
Ernest Asiedu, Chief of Party, CORAF/WASP	Sustainability and Lessons Learned The ownership of WASP by the regional institutions (ECOWAS, UEMOA and CILSS) has been strong since the beginning of WASP.	Page 10, 5 th paragraph	The regional institutions (ECOWAS, UEMOA and CILSS) and other WASP consortium member organizations paved ways of ownership by conceptualizing and designing the program, approaching USAID for funding, and participating in the consortium meetings. However, with regards to sustainability, the ownership of WASP must go beyond the aforementioned actions and must be evidenced by, inter-alia, the steady increase of their relative share in the WASP funding; the leading role they play in institutionalizing the WASP approaches and

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			documenting all seed-related experiences; and WASP management unit submitting periodic activity and financial reports to the regional institutions.
Ernest Asiedu, Chief of Party, CORAF/WASP	last paragraph NASTA be changed to NSTA		Done
Ernest Asiedu, Chief of Party, CORAF/WASP	3. Address the disconnect between ECOWAS and WASP/CORAF..... This can possibly read inadequate communication mechanism to provide ECOWAS with policy briefs and advocacy information.		The expression used in the report ‘disconnect’ is misunderstood and misconstrued. All of ECOWAS, UEMOA and CILSS are fully engaged in the implementation of WASP. What was meant with the word ‘disconnect’ was more for WASP to communicate better with ECOWAS, UEMOA and CILSS especially with regards to production of policy briefs for their authorities and also to put the ECOWAS sticker on the inventory to increase ECOWAS’s visibility. On this last point, the visibility of USAID compared to that of ECOWAS is far greater than those of ECOWAS, UEMOA and CILSS.
Dr. Kojo Kondo, M&E Specialist, WASP	The indicators for ASIWA and COAsem-CRSU have developed since the evaluation Access to credit: Access to credit is a process that takes time to mature, begins with business plan development, introduction to the bank, analyses of the application, etc.		This a good thing and it was something the MTE recommended to take place before the end of 2016.
Dr. Sokona Dagnoko – WASP National Seed Specialists, Mali	R3: Supply of Quality Breeder Seed Increased (Table 10.) <i>[In the Inception Report we recalled the problems constraining agricultural production in West Africa include lack of access to improved seed by farmers. We recalled that the region was</i>	6.2.1 page 41 of the French version of the report Page 38 of the English version	If the private sector was included only to receive breeder seed from the NARI then it is assumed that the NARI produced and supplied the seed. If this is the case, the MTE team did not have any evidence that IER produced and supplied seed to the private company since the MTE did not have access to IER breeders. The MTE needs evidence that IER provided

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	<i>supplying 182,035 MT, or, 13,6% of needs back in 2013. The potential being 1, 333, 437 MT. If in 2017 the region will be capable of supplying more Certified Seed as a result of increased availability of Breeder Seed, it means progress is being made towards increasing production and productivity of cereals in WA. It also means more money for the seed growers and other actors in the seed value chain. The value of potential need for CS is at \$1,713,265,538 compared to the value of the actual supply which is \$214,593,885. So, an increase in supply of CS can fetch little more money for seed growers.]</i> I think that the evaluators did not understand the purpose of the tripartite contracts in Mali. Maybe they did not read them carefully. In the tripartite contracts the private sector is only included as beneficiaries of the Breeder Seed to be produced by the NARI. WASP is the broker. Breeders at the NARIs are the producers of Breeder Seed. So, saying that the "Mali tripartite contracts are against the harmonized seed regulation because the private sector actors are producing breeder seed" is a wrong statement that needs to be corrected. Also at present in WA I do not think that the private sector seed companies have the technical capacities and resources required to produce breeder seed. For instance,		the breeder seed. A note from the head of the institution or a copy of the delivery note on IER letterhead.

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	they do not have a breeding program at least in Mali, and hence do not have access to early generation seed such as G0-G2 that can enable them to produce breeder seed (G3). This at least should have alerted the evaluators that the private sector seed companies are not producing BS at present and hence are not doing things against the harmonized seed regulation. The role of WASP is to support the implementation of the regulation. Not to work against it and I do not think we have done that. What WASP has achieved here through the tripartite contracts in Mali is to facilitate access to the improved germplasm released by the breeders in the NARIs (public domain) that otherwise wouldn't be accessible to seed companies (private domain). So, this performance of WASP which has a long-term benefit to the seed industry (sustainability of WASP interventions) in terms of PPP and access to improved germplasm released in the public domain needs to be highlighted in the MTE report. While doing so, the MTE report needs to tell the USAID and the readers how many improved varieties were covered by these tripartite contracts to better highlight the performance of WASP. The same applies to all other countries (if not already done as I am yet to read the whole report) to highlight our efforts		

Reviewer(s) /Institution(s)	Comment	Section/ Location	ASSESS Response /Action Taken
	in facilitating access to improved germplasm and building the seed industry by sustainably linking the NARIs and CGIAR centers to the Seed companies through the PPPs. Such linkage is needed for a smooth functioning of the seed value-chain.		
Dr. Kojo Kondo, M&E Specialist, WASP	EUROCARD changed to EUCORD Faso Kaba has been added to the cell with “EUCORD” Replace Faso Kaba with USCPMD	Table 3. Page 21	Done
Dr. Sokona Dagnoko – WASP National Seed Specialists, Mali	The CILSS must also be included in the proposed signature of the catalog by the three institutions as initially proposed.	Executive Summary (page 10)	Agreed
CILSS	<u>Sous-paragraphs b and c:</u> After the leadership of CORAF / WE CARD, it should also be emphasized that WASP is managed as a consortium of several partners. It is the combination of efforts and the specific role of each partner that make the program a success. Certainly, everything has not been perfect in this partnership. The focus should be on what needs to be improved in this system for the way forward.	Key Recommendations (page 11-13)	Agreed Relevant recommendations were made for the partnership to function as it should. (Refer to recommendations ASIWA functional)
CILSS	The WASP completion rate (106%) should not be interpreted as the achievement of all project objectives at this stage. This figure hides disparities that are presented	Recommendation 2 (page 15)	Agreed and highlighted in the report. The figure only indicates the overall rate. It was mentioned that some results have very low completion rates up to 14%.

Reviewer(s) /Institution(s)	Comment	Section/ Location	ASSESS Response /Action Taken
	below. It is still expected that much remains to be done to make the system sustainable: regular updating of the regional catalog, regular operation of the Regional Committee, national capacity to mobilize for implementation of the regulation ...		
CILSS	The countries affected by Ebola were the ones least concerned by the Task Force's training. Emphasis should be placed on these countries, especially Liberia and Sierra Leone for the way forward.	Findings and Recommendations (page 26-27)	Agreed
Solomon Ansah – WASP National Seed Specialists, Ghana	It is stated that in planning a WASP Phase II, there should be heavy representation of the Private Sector. Centre for Development and Innovation , Wageningen UR in Netherlands should be considered in the Consortium in planning WASP Phase II since they have knowledge base in market oriented seed business.	Page 12, Number 4, last but one paragraph	The understanding of the MTE is that the West African private seed companies comprises of: members of NSTAs, ASIWA and AFSTA are the target. In any case the formulation of any phase II should take into account private sector that is very much involved in the African seed industry or has the potential to do so.
	It should read Ghana PPRSD and not Ghana DPPRS	Page 26, line 1	Done
	Page 28 – last but one paragraph and Page 29-fifth paragraph; These two paragraphs have the same content which means the paragraph has been repeated. One of the paragraphs must be deleted. <i>The paragraph reads..... The signatories of WASP accounts are only CORAF management at the regional</i>	Page 28	Done. The fifth paragraph on page 29 was removed

Reviewer(s) /Institution(s)	Comment	Section/ Location	ASSESS Response /Action Taken
	<i>level etc.</i>		
Solomon Ansah – WASP National Seed Specialists, Ghana	The statement is not clear. I suggest that it should read as follows: The Ghanaian Ministry of Food and Agriculture (MOFA) officials reported that the Ghanaian Cabinet examined and approved the request of the MOFA for ratification of the Harmonized Regional Seed Regulation by the Parliament. Since the National Seed Regulation has been aligned with the ECOWAS Seed Regulation, the passage of the latter would precede the latter.	Page 34, line 7	Done. Statement corrected in the report.
	The name “Opari” should be changed to “Opare”	Page 37, Paragraph 3, line 3	Done
	The issue needs to be clarified. WASP-Ghana signed a Letter of Agreement with GLDB to produce 3 tons of foundations seeds from breeder seeds of rice that was supported by WASP. Due to lack of funds, the contract was not executed. More so, GLDB did not sub-contract the production of the foundation seeds to CSIR-SARI. I have no evidence to the sub-contracting that was mentioned in the paragraph. Perhaps, the Team of Evaluators has the evidence. The bottom line is that WASP-Ghana did not have adequate funds to execute the contract.	Page 38, last paragraph	The MTE team was informed in a focus group meeting at CSI-SARI headquarters.
COMMENTS IN FRENCH VERSION OF EVALUATION REPORT			

Reviewer(s) /Institution(s)	Comment	Section/ Location	ASSESS Response /Action Taken
Niger	WASP (Chief of Party and former Monitoring and Evaluation Officer) Is it the COP or the Director of the ECOWAS Agriculture Department? It is the Director of ECOWAS AD that is indicated the box from below.	Page 25, Table 3	This is the WASP COP. For the Director of the ECOWAS Agriculture Department, see the last row of the table.
“	The quantitative data captured in the synthesis tools and / or derived from the Performance Management Plans and the WASP Indicators Monitoring Table were essentially analyzed using percentages What method is this?	Page 25	It is presenting the results in the form of percentages of achievement based on targets
	R2: ECOWAS Seed Regulation Applied (Table 9) <i>Two of the countries covered by the WASP, Ghana and Niger, have not adapted their procedures manuals for phytosanitary certification.</i> the mandate of the WASP was more the seed regulation. In this respect, Niger, through its CNS which held 3 ordinary meetings from 2015 to 2016, developed a dozen of implementing texts including technical procedures manuals which are introduced into the circuit. The INSAH Seed Policy Task Force contacted the Plant Protection Directorate with a view to supporting it on this issue of certification but there was no follow-up certainly because of a lack of resources.	Page 40	The team is sticking to the finding that the manual has not been adapted and highlighted the reasons where evidence was provided.

Reviewer(s) /Institution(s)	Comment	Section/ Location	ASSESS Response /Action Taken
	R2: ECOWAS Seed Regulation applied. Number of countries that have published the ECOWAS seed regulation in their Official Journal There are only 17 countries in the ECOWAS-WAEMU-CILSS area! What is 75 ?	Page 47, Table 12	The denominator is 16, which is the target for 2016 (see Table 9). The numerator is 12.

ANNEX 0. EVALUATION TEAM COMPOSITION

ASSESS assembled high level evaluation team members through its University Partners platform (DSU, URI, KNUST) and network of private consultants, and individual development practitioners. The evaluation team is composed as follows.

1. Dr. Fred T. Davies, Team Lead. Regents Professor at the Department of Horticultural Sciences, Borlaug Institute for International Agriculture at Texas A&M University (TAMU), Plant & Seed Scientist. Dr. Davies has over 30 years of experience in research, evaluation, teaching, and industry outreach and consultancies in seed and germplasm programs, horticulture, and plant propagation in over 17 countries including in West Africa. Former Senior Science Advisor, Jefferson Science Fellow, USAID, Bureau of Food Security/ARP.

2. Mr. Musa Mbenga, Development Practitioner; Agriculture Research Expert, Program Design, and Management. Mr. Mbenga is an International Development practitioner with over 30 years of experience in research, program design, administration, management and leadership. He was FAO Deputy Regional Representative for Africa, Coordinator of the West Africa Sub-Regional Program and Country Representative to the Democratic Republic of Congo and Ghana, respectively between 2007 and 2012, Executive Secretary for the CILSS during 6 years between 2001 and 2007 and Gambian Minister of Agriculture and Natural Resources, between 1994 and 1999.

3. Mr. Cheikh Tidiane Sarr, Institutional and Organizational Expert, Agribusiness; Assessment of Agricultural Policies; Institutional Capacity Assessment, Information System. He has undertaken several consultancies for different organizations over the last 20 years including IFAD, AfDB, FAO, WB, USAID, EU, etc. Mr. Sarr worked as Division Chief, Deputy Director and Director in various departments (Department of Agriculture and Rural Development; Computer Services Department; and Human Resources Department) of the African Development Bank.

4. Dr Richard Akromah; Seed Expert; Crop Protectionist; Agribusiness Specialist, Agronomist; Evaluation; Multidisciplinary Research. Dr Akromah is a seed expert and a plant breeder. He is currently the Provost of the College of Agriculture and Natural Resources of the Kwame Nkrumah University of Science and Technology (KNUST), and a lecturer, lecturing breeding, genetics, plant biotechnology, and related fields at all academic levels.

5. Mr. Sounka Ndiaye: (a) strategic planning; (b) monitoring, evaluation, reporting, and analysis. Monitoring and Evaluation Officer for the United States Agency for International Development (USAID) in Senegal from 1992 to 2015. As M&E Officer, Mr Ndiaye served as Principal Advisor to USAID/Senegal management, its partners, and customers on systems for monitoring, evaluating, and reporting on USAID development outcomes and impact.

6. The evaluation team was assisted technically and in logistics by ASSESS staff and partner universities led by **Abdourahmane BA, the ASSESS Project COP.**

The ASSESS evaluation team (MTE team) with expertise in seed systems, agronomy, horticulture, commercial propagation systems, agricultural research, institutional and organizational assessment, a former Minister of Agriculture, and team leadership of professional and international organizations, and USAID program measurement and evaluation expertise, adopted analytically rigorous methods to assess the progress and results of WASP's implementation to date and to provide important information for decision making and program continuation, as well as to make recommendations for necessary modification to increase the impact and sustainability of the program at country and regional levels.

The MTE team strategically gathered information on the WASP, analyzed data and results, and provided responses to the evaluation questions. The MTE team employed the mixed-method evaluation approach involving the application of both qualitative and quantitative methods for data collection and analysis. Consistent with this method, the team applied multiple data collection methods and corresponding tools to address the evaluation questions. The MTE team ensured that evidence was gathered from both primary and secondary sources.

ANNEX 1: EVALUATION SOW

1. Scope of Work

A. Purpose of the Evaluation

This midterm evaluation will assess the performance of the CORAF/WECARD activity to determine if planned activities are leading to activity objectives and desired expected outcomes. Evaluation findings will be used by USAID to inform on progress to date in building the capacity of key regional stakeholders, determine the sustainability of activities, and serve as a learning tool to permit mid-course adjustments to the activity. Mid-course adjustments could include but are not limited to scope of work revisions, work plan changes and activity monitoring and learning plan adjustment. Additionally, evaluation findings will be used to inform new Project Appraisal Document (PAD), activity descriptions for future programs; the next generation of National Agricultural Investment Plans, and for post Feed the Future Agriculture activities as it pertains to regional stakeholders (ECOWAS, UEMOA, CILSS, ROPPA).

B. Evaluation Audiences and Intended Users

WASP is addressing a key constraint that is plaguing agriculture sector productivity throughout West Africa. The USAID Regional and Bilateral Missions in West Africa will be priority users for the information from this evaluation. USAID/West Africa's regional partners, ECOWAS, CILSS, CORAF/WECARD, ROPPA and others working to influence agriculture productivity, will be equally interested in knowing that the issues that are plaguing the seed sector will be addressed. The prime audience for this information will be the thousands of producers that have not had access to the inputs needed to reap the benefits of their hard work. Finally, other donors and investors will have access to information needed to influence their investment choices.

C. Target Areas and Groups

Target areas

Targeted areas for this evaluation include WASP activity locations across countries in the region, focusing mainly on Ghana, Senegal, Liberia and Mali.

Stakeholders

USAID/West Africa and CORAF/WECARD will provide a preliminary list of stakeholders to the evaluation team that ASSESS will complete after documentation review. Stakeholders may include but are not limited to: (a) IP Senegal and field staff; (b) cooperating country government staff, focusing on the target countries and those directly involved in increasing producers access to quality seeds; (c) other Regional Organization (CILSS, ECOWAS, UEMOA) working with CORAF/WECARD; (d) staff and IPs of USAID/ West Africa and other USAID missions and programs which have engaged with WASP; (e) international and regional agriculture research institutions involved in seed productions (IITA, AGRA, etc.); (f) related private sector businesses participating in seed production; (g) staff of multilateral organizations and development partners; (h) regional and national NGOs and community representatives.

D. Evaluation Objectives

The main objective of this evaluation is to assess and document the extent to which WASP achieved its objectives. Specifically, the performance evaluation must address the following objectives as they pertain to the evaluation questions:

1. Conduct a comparative analysis of WASP's key performance indicators at baseline and mid-line to assess changes in indicators and determine how successful has the WASP activity been in meeting its planned targets.
2. Document any successes, best practices, lessons learned and challenges the activity encountered, in order to inform future programming.
3. Identify internal and external factors that have affected the implementation of the activity to date. Assess the extent to which the assumptions outlined by USAID and endorsed by CORAF/WECARD are appropriate and are being addressed by the CORAF/WECARD team.
4. Ascertain the extent to which the activity helped to advance collaborative and participatory management practices for key stakeholders including: seed producers, seed distributors, farmer organizations, National Seed Committees, etc.
5. Determine the extent to which the activity's local capacity development initiatives managed to develop and strengthen the capacity of the key stakeholders and assess the sustainability of the approach.
6. Identify any strategic results that are ready for scale up or that may influence follow-on design.
7. Identify the key results and insights gained that should inform future food security endeavors in the region such as the next generation of national and regional Agriculture Investment Plans as well as future USAID agriculture programs.

E. Evaluation Questions

- 1) How successful has the WASP activity been in meeting its planned targets?
 - a. If certain activity components have not been successful, please explain why (incorrect assumptions, programmatic issues such as lack of attention to gender/youth integration into the seed sector or lack of attention to fertilizer, private sector issues, staffing issues, etc.).
 - b. What are the areas of performance, if any, that require USAID attention?
- 2) What recommendations are there for strengthening, improving and building upon (scale-up) program successes of WASP sub-activity successes post-2017? Include in your analysis the viability and approach WASP has taken to build supply and/or meet farmer demand for improved seed.
- 3) Is WASP's leadership in strengthening the seed system and advancing the ECOWAS Seed Regulations regarded as necessary (or integral to scaling-up seed input success) by their counterparts such as the International Agriculture Research Centers, and NARIs, etc.?
 - a. Are the institutional structures/relationships now in place, for example within partnership institutions such as the NARIs, or are they being developed to sustain the relationships and investments that are being made by WASP?
- 4) What is the link and dependency between CORAF and WASP? For example, please describe the types/amounts of technical support CORAF provides to the WASP team, and vice versa.
 - a. Is it reasonable or not (and why) to expect CORAF to replicate/scale the WASP demonstrated model of capacity support for breeder seeds throughout the NARIs in the West Africa region?
- 5) What actions (structures, processes, etc.) have been taken since the establishment of AISWA and COASem, to meet their respective objectives and to enable their sustainability? Please include a

description of the role/responsibility of core stakeholders, and address whether each has successfully understood and demonstrated their contribution.

- 6) How has the private sector fulfilled the roles expected of it in the regional seed sector? For example, describe the viability of the private sector and how it is advancing the development, promotion and sale of certified and foundation seed.
 - a. What vulnerabilities/weaknesses/gaps still exist within the private sector and what can be done to address them?
- 7) To what extent has WASP considered fertilizer as a constraint in the use of seed varieties it is promoting? Please include in your analysis a review/description of the investments made by WASP in documenting fertilizer use during the field-testing stage.
- 8) How is WASP addressing the fertilizer issue (utility/supply/demand) in the move from breeder to certified and foundation seed?

F. Evaluation Priorities

The regional dimension of this activity will require that team prioritize their level of effort in responding to the acute need for information about the progress and lessons from implementation of WASP. In working to respond to the questions listed above, the evaluation team should prioritize their level of effort in responding to the questions as follows:

Focus	Estimated Level of Effort
Assess progress to date in achieving planned results	40%
Assess team strength and collaboration modalities in support of improved seed production	15%
Assess capacity building results and the potential for sustainability	15%
Assess strategic areas of results that are ready for scale up	30%

G. Types of Answers Needed in Response to the Questions

Much of the information needed in response to the questions will be descriptive. Comparative results must be used when assessing results against planned targets. As the evaluation team looks at the impact of capacity support, which is a substantial component of this activity, there is a need for cause and effect reporting to understand the what is being done different since the start of the activity and the potential for sustainability. The evaluation team will discuss the questions and types of responses during the entry meetings with the Mission.

2. Evaluation design and approach

A. Tasks

ASSESS must perform the following tasks as part of this scope of work:

- Draft inception report
 - o Develop the evaluation methodology
 - o Test and verify the evaluation methodology

- o Deploy a field team
 - o Collect the relevant data to inform the evaluation
- Conduct oral debrief meetings with USAID on the preliminary findings of the evaluation
- Draft Final Report
- Host USAID and Partner debriefings to present the draft evaluation findings for their validation and inputs
- Submission of COR approved final report to the DEC

B. USAID Coordination

The ASSESS evaluation team will work in conjunction with staff at the Regional Agriculture office to plan and implement the proposed evaluation. USAID/West Africa and the Mission's evaluation team will be involved with the design, planning, and limited logistical support for the evaluation. Specific support to the team will include: provisions of relevant program documents, technical briefings as needed; support in identifying appropriate people to contact; assistance in getting appointments with senior officials in regional organizations such as ECOWAS, CILSS and CORAF, and appropriate logistical support as needed. Consultants are expected to provide leadership and direction, as well as have the final responsibility for all evaluation duties and deliverables. Scheduled debriefings will provide an opportunity for USAID to determine the need for additional guidance and support.

C. Results: Deliverables and Outputs

ASSESS must furnish the following deliverables and reports:

Inception Report

The inception report must describe the conceptual framework ASSESS will use to undertake the evaluation and the justification for selecting this approach. It must detail the evaluation methodology (i.e. how each question will be answered by way of data collection methods, data sources and sampling). The report must also contain a work plan, timeline and logistics/travel plan which indicates the phases in the evaluation with key deliverables and milestones. USAID/WA will review this report and ASSESS must receive approval from the AOR on the report before it begins implementing the evaluation plan. The inception report must clearly document and discuss how gender analysis will be integrated into the design of the evaluation.

- The Inception Report must at least contain the following:
- A work plan, which indicates the phases in the evaluation with key deliverables and milestones and key personnel responsibility.
- Complete set of evaluation questions and elaborate on them as necessary. Any changes to questions must be clearly indicated and any deleted questions must be mentioned with a reason as to their exclusion.
- Discussion of the overall approach of the evaluation, highlighting the conceptual model(s) adopted. This must incorporate an analysis of the intervention logic of the program.
- Discussion of risks and limitations that may undermine the reliability and validity of the evaluation results.
- Specification of indicator, index, or indicators that must be used as a guide in answering each question.
- Discussion of the data collection and data analysis methods that will be used for each question. State the limitations for each method. Include the level of precision required for quantitative and qualitative methods and value scales or coding used for qualitative methods. Standard data

collection methods for USAID evaluations are: surveys, questionnaires, interviews, focus groups, document review and observations.

- Detail key data sources that will be selected to answer each evaluation questions.
- Explanation of how existing data will be incorporated and used to answer the evaluation questions.
- Discussion of the sampling methods and details. Include area and population to be represented, rationale for selection, mechanics of selection, sample size (for each unit of analysis), sample precision and confidence and limitations (if applicable).
- Summarized evaluation methodology in an evaluation planning matrix that must contain the following column headings: evaluation question, measure (s) or indicator(s), data collection method(s), data source, design strategy / framework for each question, sampling methodology, data collection instrument(s) for each question and data analysis methodology on each evaluation question.
- Establish a preliminary timeline upon receipt of the Scope of Work. The time line will be revised once the final team is assembled and hold Team Planning Meetings with USAID. A final detailed timeline must be submitted and approved before the fieldwork begins that shows the evaluation phases (data collection, data analysis and reporting) with their key deliverables and milestones.
- Specific responsibilities of each team member for each evaluation phase.
- Develop a logistics plan that includes a detailed travel schedule and the initial planned contact list for each site to be visited. This plan should also include specific assistance that will be required from USAID, such as providing arrangements for key contacts within the Mission or national Governments where the evaluation will occur.
- Appended draft instruments for data collection specific to questions and indicators in the evaluation.

Evaluation Methodology (submitted within the Inception report)

The performance evaluation must utilize the mixed methods research design employing both quantitative and qualitative methods to strengthen the validity of the findings and provide room for data triangulation. ASSESS must describe and document the methodological approach that will be used and this should follow USAID Evaluation best practices. ASSESS will begin its data collection with a desk study of existing documents and information, followed by consultations with key stakeholders in the region to further refine and inform the implementation approach, which will be based on a consultative process.

- **Desk study:** Review existing documents and information listed above. Work with USAID/ West Africa to acquire additional documents and information as needed, and prioritize primary data collection where gaps remain.
- **Internal Consultations:** Meet or conference call with key stakeholders in West Africa for recommendations on specific areas of consideration. This is separate from the survey or interview process by which data may be collected among some of the same stakeholders.

This will be followed by interviews of partners, stakeholders, and beneficiaries in the program's target countries mostly in Benin, Burkina Faso, Ghana, Mali, Niger, Nigeria and Senegal, and potentially other countries as appropriate.

- **External interviews and focus group discussions:** In-person interviews and focus group discussions should be limited to individuals and organizations in the program's target region, to be prioritized based on Mission and other stakeholder consultation, drawing from the range of stakeholders the program is engaged with.
 - Where a focus group is suitable, it may be appropriate to separate by gender or specific groups, or participants from different countries and/or organizations. Different types of questions will be tailored to the specific target stakeholder group. The data will be

analyzed by using transcription and/or coding methods as appropriate. **Targeted follow-up phone calls with stakeholders outside the priority geographic region may also be utilized.**

- o **Surveys** may be conducted with businesses/public regulatory officials/ scientists and other beneficiaries of technical assistance and market information.
- o **Site visits** to areas of WASP activities will enable the evaluation team to meet with and interview direct program beneficiaries, verify activity outputs and outcomes, and observe first-hand program outcome.

Each approach has its strengths and limitations, ASSESS team must come-up with techniques and tools to limit at maximum bias linked to approaches weaknesses.

Methods	Strengths	Weaknesses
Desk study	Provide valuable information on substantive issues and generate a list of questions including key stakeholders that can be used in other methods. Help to focus efforts and prioritize issues and gaps	Time consuming Depends on resource availability Lack of consistent data collection Limited baseline data
Consultations	Provide valuable information on substantive issues and generate a list of questions including key stakeholders that can be used in other methods. Provide greater depth and insights and general surveys	Depends on availability of key stakeholders Need to consider time zone difference. Quality/reliability of data
Individual interviews	Potentially data rich, detailed answers; provides opportunity to review written correspondences with WASP team	Might need to interview through translators (possible loss of meaning and data richness) Might have informants' bias
Focus group discussion	Can generate a range of ideas and responses. Can include a greater number of participants in less time and result in rich discussion.	Might need to conduct discussion through translators (possible loss of meaning and data richness) Some respondents may dominate in answering Informant bias

The model must include an evaluation framework and assessment tools for each evaluation question and highlight the conceptual model(s); specify the measurement criteria to be used to respond to each question. A desk top review of critical documentation must be done. The methodology must discuss any risks and limitations that may undermine the reliability and validity of the evaluation results.

In order to ensure the maximum value for learning and use, a description of the proposed evaluation methodology must include the following, at a minimum:

- Methods of data collection: ASSESS must clearly highlight the different methods and tools that will be utilized to collect both quantitative and qualitative data such as structured questionnaires for beneficiary interviews; analysis of secondary data/outputs from performance monitoring system, focus group interviews with beneficiary farmers, key informant interviews with USAID staff, implementing partners or government staff, community leaders and other stakeholders. ASSESS must disaggregate data by sex, where relevant and level of intervention (regional, country where available). **Country level data will be particularly important for the countries**

where WASP is focused in order to ensure that regional efforts are synergistic and adding value to the bilateral FtF programs.

- Sampling (where appropriate to the methodology used): ASSESS must propose how sampling will be done and propose the appropriate sample sizes required to ensure scientific rigor.
- Data analysis: ASSESS must provide the plan for analysis of all qualitative and quantitative data collected. This should include how different secondary sources of data collected by WASP (e.g. annual beneficiary surveys/outputs from performance monitoring system, etc.) will be utilized to answer the evaluation questions.

Data Collection and Analysis

USAID requests that the evaluator complete the following table as part of its detailed design and evaluation plan.⁵

Evaluation question	Data source	Data collection method (including sampling methodology, where applicable)	Data analysis method

All methodological limitations should be identified and explained. The solutions used to overcome these limitations should be introduced and described. The validity of the data and analytical outcomes should be discussed in the light of the above.

Initial Debriefing Meeting

Within three working days of completing the field work, ASSESS should host a meeting with the AOR and the USAID/WA M&E staff to review findings and recommendations, and the draft PowerPoints for the Mission and Partner debriefings.

This meeting must provide a summary of any analytical results; discuss challenges, successes and way forward. ASSESS must deliver an oral presentation of the evaluation findings, conclusions and recommendations for each question to USAID, prior to finalizing the draft evaluation report. The team leader of the evaluation team will be required to routinely update the evaluation point of contact on the progress of the evaluation.

⁵ Another format may be used if the table is not preferred, but any chosen format should contain all the information specified for each question.

There should also be at least two phone conferences during the evaluation period. They will serve to update USAID/WA, to troubleshoot and ensure the evaluation team is on the right path and that there hasn't been any misunderstanding about the expected results.

Draft Evaluation Report

After taking into account all the new information and feedback provided on the final oral briefings and draft evaluation report, ASSESS must submit a final evaluation report that is based on analyzed facts and evidence and fully addresses all the evaluation questions. The report must be no more 40-50 pages in length (excluding annexes). ASSESS must also submit an electronic version in an appropriate media including all tools and products of the evaluation, including instruments and data in data formats suitable for reanalysis. ASSESS must ensure that Appendix I of the USAID Evaluation Policy – Criteria to Ensure the Quality of the Evaluation Report is followed. This includes:

The evaluation report must represent a thoughtful, well-researched and well organized effort to objectively evaluate what worked in the project, what did not and why;

- Evaluation reports must address all evaluation questions included in the scope of work;
- The evaluation report should include the scope of work as an annex. All modifications to the scope of work, whether in technical requirements, evaluation questions, evaluation team composition, methodology or timeline need to be agreed upon in writing by the technical officer;
- Evaluation methodology must be explained in detail and all tools used in conducting the evaluation such as questionnaires, checklists and discussion guides will be included in an Annex in the final report;
- Evaluation findings will assess outcomes and impact on males and females;
- Limitations to the evaluation must be disclosed in the report, with particular attention to the limitations associated with the evaluation methodology (selection bias, recall bias, unobservable differences between comparator groups, etc.);
- Evaluation findings must be presented as analyzed facts, evidence and data and not based on anecdotes, hearsay or the compilation of people's opinions. Findings must be specific, concise and supported by strong quantitative or qualitative evidence;
- Sources of information must be properly identified and listed in an annex;
- Recommendations must be supported by a specific set of findings; and should be action-oriented, practical and specific, with defined responsibility for the action.

USAID/West Africa will provide written comments on the draft evaluation report within the schedule agreed to in the timeline. An improved second draft will be submitted by the ASSESS team for Technical Evaluation and Monitoring Squad (TEAMS) peer review.

Mission and IP/Stakeholder Debriefings

Debriefing with USAID: The team will present the major findings of the evaluation to USAID/West Africa through a PowerPoint presentation after submission of the draft report and before the team's departure from country. The debriefing will include a discussion of achievements and issues as well as any recommendations the team has for possible modifications to project approaches, results, or activities. The team will consider USAID comments and revise the draft report accordingly, as appropriate. The team must present the key findings, conclusions and recommendations.

Debriefing with Partners: The Evaluation Team will present the major finding of the evaluation to USAID partners (as appropriate and as defined by USAID) through a PowerPoint presentation

prior to the team 's departure from country. The debriefing will include a discussion of achievements and activities only, with no recommendations for possible modifications to project approaches, results, or activities. The team will consider partner comments and revise the draft report accordingly, as appropriate.

Submit Final Evaluation Report

The final evaluation report must contain the following sections:

Executive Summary: This section must be 3-5 pages in length and must summarize the purpose, project background, evaluation design and methodologies including main evaluation questions, key findings, conclusions, and recommendations and lessons learned from the evaluation.

Background: This section must provide a brief description of the project (1-2 pages) that highlights the scope of the project, project development hypothesis, activities undertaken in the project, key impact indicators of the project and impact areas of the project. Other activities that complemented the project activities directly or indirectly in the intervention districts must also be highlighted.

- Methodology and Limitations: This section must detail the methodology and related research protocols undertaken in conducting the evaluation, data collection, analysis, selection criteria/sampling, and related constraints or limitations encountered during the project implementation and evaluation (1-2 pages).
- Findings: Empirical facts collected during the evaluation: This section must present findings from the evaluation (10-12 pages). The evaluation findings must be presented as analyzed facts, evidence and data and not based on anecdotes, hearsay or the compilation of people's opinions. The evaluation findings must assess key outcomes and impacts as structured around the organizational framework of the evaluation questions. The findings must be specific, concise and supported by strong quantitative and qualitative evidence analyzed through scientifically plausible methodologies. Sources of information used in arriving at the findings must be properly acknowledged and listed in an annex.
- Conclusions (Interpretations and judgments based on the findings): Evaluation conclusions must be presented for each key finding (8 pages). The Conclusions must logically follow from the gathered data and findings. These must be explicitly justified. If and when necessary, the evaluator must state his/her assumptions, judgments and value premises so that readers can better understand and assess them.
- Recommendations (Proposed actions for management): This section must precisely and clearly present recommendations that must be drawn from specific findings (3-5 pages). The recommendations must be stated in an action-oriented fashion, must be practical, specific, and with defined responsibility for the requisite action. The recommendations presented in this section must follow the evaluation questions as the organizational framework.
- References: This section should include all documents reviewed, including background documentation and records of technical data application and decision-making.
- Annexes: These may include, but not limited to, statement of work, tools used in conducting the evaluation such as questionnaires, checklists, discussion guides, sources of information, etc.

The final version of the report must be submitted to USAID/West Africa electronically in Microsoft Word. **The report must be no longer than 40 pages (excluding table of contents, references and annexes), written in English, single-spaced in Gills Sans MT, size 11 type font.** All data and materials are to be surrendered to and will remain the property of USAID.

D. Team Composition

It is important that the evaluation team include people who have substantial experience with the seed sector in West Africa. The experts needed for this evaluation should include a mix of skills with the following expertise: evaluation specialist; seed scientist, agriculture research expert, agribusiness specialist; organizational expert; and team leader/manager/major writer.

Technical experts should have 10-15 years of working experience in West Africa; knowledgeable understanding of the key institutions and organizations (regional and international, public and private) involved in seed sector development. The organizational expert will be expected to assess the value of the capacity support provided to date as well as make recommendation on what is needed for the remainder of the program. Assess will be expected to further refine the requirements for each expert and identify candidates for USAID approval. It is reasonable to expect that some skills and expertise will overlap; and the team composition could possibly be revised to reflect the best team to carry out this work. Final approve is vested with USAID. It is envisioned that this team will have a maximum of 6 members. Fluency in French is a requirement.

E. Place and Period of Performance

The place of performance includes Senegal, Liberia, Ghana and Mali. The extent of travel will be determined by the evaluation design and data needs as agreed upon between ASSESS and USAID. The USAID/WA REGO AOR will serve as the primary point of contact for the performance evaluation. The performance evaluation is expected to take approximately 10 weeks starting on or around May 15, 2016.

F. Logistics

ASSESS and their field team will be responsible for all logistics including coordinating and paying for all travel throughout the targeted evaluation area, lodging, printing, office space, equipment and car rentals, financing of evaluation activities award and managing dissemination of results. ASSESS musty provide a detailed line item budget that captures expenses for all aspects of the evaluation and related costs. This will help USAID/WA AOR determine cost feasibility of the evaluation as proposed by the ASSESS team.

G. Existing Data

Varieties of program-related documents are available and will be provided to ASSESS:

- WASP cooperative agreement and program description
- WASP annual work plans (FY12, FY13, FY14, FY15)
- Performance Management Plan (PMP)
- Quarterly and Annual reports
- WASP special studies and reports
- USAID reports on field trips/site visits
- Minutes/reports of stakeholder meetings and consultations
- Data Quality Assessment Records (DQA)
- National data sources.

ANNEX 2. EVALUATION MATRIX

FOCUS	EVALUATION QUESTION	SUB-QUESTION	INDICATORS TO BE MEASURED	DATA COLLECT ION METHOD	DATA COLLECT ION TOOL	DATA SOURCE	SAMPLING OR SELECTION CRITERIA	DATA ANALYSIS METHOD(S)
A. Progress to Date in Achieving Planned Results	1. How successful has the WASP activity been in meeting its planned targets? a. If certain activity components have not been successful, please explain why (incorrect assumptions, programmatic issues such as lack of attention to gender/youth integration into the seed sector or lack of attention to fertilizer, private sector issues, staffing issues, etc.). b. What are the areas of performance, if any, that require USAID attention?	1. To what extent has WASP achieved the planned targets? (How well do actual data compare to targets set? How well do baseline data compare to targets set? Are there activities planned per the work plan which are postponed / rescheduled? What is the rationale of rescheduling and/or postponing activities?)	WASP key performance indicator (KPIs) targets vs achievements KPI Baseline vs targets Planned vs implemented activities	Document Review	Document Review Guide	Annual project reports, PMP, Results Framework, WASP KPI's tracking table, annual work plan	Exhaustive review of relevant documents	Content, comparative analysis
		2. Which activity components have been successful and why?	Planned targets of program activities vs achievements	Review of Program M&E Database	Document Review Guide	Program work plans, Annual and quarterly reports, activity reports	Exhaustive review of relevant documents	Content, comparative analysis
		3. Which activity components have not been successful and why?						
		4. How realistic or appropriate were the project assumptions?	Assumptions are meeting appropriateness criteria	Document Review	Document Review Guide	WASP cooperative agreement, work plan, results framework, annual project reports	Exhaustive review of relevant documents	Content, comparative analysis

FOCUS	EVALUATION QUESTION	SUB-QUESTION	INDICATORS TO BE MEASURED	DATA COLLECT ION METHOD	DATA COLLECT ION TOOL	DATA SOURCE	SAMPLING OR SELECTION CRITERIA	DATA ANALYSIS METHOD(S)
		5. Overall, what factors (positive and negative) influenced achievement of WASP objectives?	Type and magnitude of project influential factors	Document Review	Document Review Guide	Annual and quarterly project reports, activity reports	Sample annual and quarterly reports	Content Analysis
				Interview	Interview Guide	CORAF/WASP team, WASP partners	Purposive and quota sampling	Thematic Analysis
				SWOT assessment	SWOT analysis tool	Annual and quarterly project reports, activity reports, CORAF/WASP team, WASP partners	Exhaustive review of documents and purposive sampling of CORAF/WASP team and WASP partners	SWOT Analysis
		6. What challenges did WASP encounter and how have they influenced implementation?	Type and magnitude of project challenges	Document Review	Document Review Guide	Annual and quarterly project reports, activity reports	Exhaustive review of relevant documents	Content Analysis
				Interview	Interview Guide	CORAF/WASP team, WASP partners	Purposive and quota sampling	Thematic Analysis
	7. To what extent has WASP considered fertilizer as a constraint in the use of seed varieties it is promoting? (Please include in your analysis a review/description of the investments made	1. What investments has WASP made in documenting fertilizer use?	Level (Type and volume) of investments in fertilizer use documentation	Document Review	Document Review Guide	Annual project reports, reports on special studies, financial reports,	Exhaustive review of relevant documents	Content Analysis
				Interview	Interview Guide	CORAF/WASP team	Purposive sampling	Thematic Analysis
		2. Does WASP have a documented strategy in place to address or	Existence of a documented strategy on 'fertilizer	Document Review	Document Review Guide	Annual project reports, PMP, Results	Exhaustive review of relevant	Content Analysis

FOCUS	EVALUATION QUESTION	SUB-QUESTION	INDICATORS TO BE MEASURED	DATA COLLECTION METHOD	DATA COLLECTION TOOL	DATA SOURCE	SAMPLING OR SELECTION CRITERIA	DATA ANALYSIS METHOD(S)
	by WASP in documenting fertilizer use during the field-testing stage).	manage the 'fertilizer constraint'?	constraint' management			Framework, WASP KPI's tracking table	documents	
				Interview	Interview Guide	CORAF (WASP staff)	Purposive sampling	Thematic Analysis
	8. How is WASP addressing the fertilizer issue (utility/supply/demand) in the move from breeder to certified and foundation seed?	1. What actions has WASP taken to address the fertilizer issue in the move from breeder to certified and foundation seed?	1. Type of actions initiated to address the fertilizer constraint 2. Mean kg of fertilizer applied per ha	Document Review	Document Review Guide	Annual program reports, reports on special studies, financial reports,	Exhaustive review of relevant documents	Content Analysis
				Interview	Interview Guide	CORAF/WASP team, WASP partners	Purposive and quota sampling	Thematic Analysis
		2. How appropriate (and effective) are these actions?	Identified actions (in relation to addressing fertilizer constraints) meeting appropriateness criteria	Document Review	Document Review Guide	Annual program reports, reports on special studies	Exhaustive review of relevant documents	Content, comparative analysis
				Interview	Interview Guide	CORAF/WASP team, WASP partners	Purposive and quota sampling	Thematic Analysis
B. Team Strength and Modalities in Support of Improved Seed Production	4. What is the link and dependency between CORAF and WASP? For example, please describe the types/amounts of technical support CORAF provides to the WASP team, and vice versa. A. Is it reasonable or not (and why) to expect CORAF to	1. How do WASP objectives align with that of CORAF?	1. Parallels and linkages between WASP objectives and CORAF objectives. 2. Extent to which CORAF objectives have changed over time to coincide with WASP.	Document Review	Document Review Guide	CORAF Strategic Plan; Annual Reports; WASP PMP; WASP Program documents	Exhaustive review of relevant documents	Content, comparative analysis
				Interview	Interview Guide	CORAF/WASP team	Purposive sampling	Thematic Analysis
		2. What percentage of CORAF budget is contributed by WASP?	Percent of CORAF budget contributed by WASP	Document review	Document Review Guide	Financial documents	Exhaustive review of relevant documents	Comparative analysis

FOCUS	EVALUATION QUESTION	SUB-QUESTION	INDICATORS TO BE MEASURED	DATA COLLECT ION METHOD	DATA COLLECT ION TOOL	DATA SOURCE	SAMPLING OR SELECTION CRITERIA	DATA ANALYSIS METHOD(S)
	replicate/scale the WASP demonstrated model of capacity support for breeder seeds throughout the NARIs in the West Africa region?	3. What types of technical support WASP receives from CORAF? How much technical support WASP receives from CORAF? What types of technical support CORAF receives from WASP? How much technical support CORAF receives from WASP? How effective are the working relationships between CORAF and WASP?	1. Type of support (technical, financial, programmatic, use of project cars etc.) provided by CORAF to WASP team. 2. Type of support provided by WASP team to CORAF. 3. Volume of support provided by CORAF to WASP team 4. Volume of support provided by WASP to CORAF team 5. Percent of respondent reporting that the working relations have been effective	Interview	Interview Guide	CORAF/WASP team	Purposive sampling	Thematic Analysis
		4. What requirements (pre-conditions) are needed to replicate the WASP demonstrated model of capacity building support for breeder seeds throughout the NARIs	1. Description of the WASP demonstrated model of capacity building for breeder seeds; 2. List of conditions that make the model work;	Document review	Document Review Guide	Activity reports, annual program reports, capacity building manual, other existing documents on the capacity building model	Exhaustive review of relevant documents	Content and descriptive Analyses

FOCUS	EVALUATION QUESTION	SUB-QUESTION	INDICATORS TO BE MEASURED	DATA COLLECTION METHOD	DATA COLLECTION TOOL	DATA SOURCE	SAMPLING OR SELECTION CRITERIA	DATA ANALYSIS METHOD(S)
		in the West Africa region? Is CORAF in a position to meet these requirements? To what extent would NARIs be qualified for taking over WASP?	3. Reasons why identified conditions are unique to WASP program or depend on CORAF as an institution 4. Capacity score of NARIs to meet the conditions necessary to replicate the model	Interview	Interview Guide	CORAF/WASP team, NARIs	Purposive and quota sampling	Thematic Analysis
		6. How has the private sector fulfilled the roles expected of it in the regional seed sector? For example, describe the viability of the private sector and how it is advancing the development, promotion and sale of certified and foundation seed. a. What vulnerabilities/weaknesses/gaps still exist within the private sector and what can be done to address them?	1. Roles of the private sector in the seed sector; 2. Percentage of respondents reporting that the private sector is fulfilling these roles;	Document/ Literature review	Document review guide	Documents/Literature (Secondary Sources);	Sample relevant literature	Content and Descriptive Analyses,
				Interview	Interview Guide	Large and small seed firms in WA, other identified private sector players in the WA seed sector	Purposive and quota sampling	Thematic Analysis
			1. Extent to which private sector is supported by regional rules and regulations on seed; 2. Extent to which private sector is independent of external support [countries, NGOs, IARS, NARI's (financial)]; 3. Percentage of the total seed needs	Document/ literature review	Document review guide	Documents/Literature (Secondary sources)	Sample relevant literature	Descriptive and comparative analyses
				Interview	Interview Guide	Private sector seed firms	Purposive and quota sampling	Thematic analysis

FOCUS	EVALUATION QUESTION	SUB-QUESTION	INDICATORS TO BE MEASURED	DATA COLLECTION METHOD	DATA COLLECTION TOOL	DATA SOURCE	SAMPLING OR SELECTION CRITERIA	DATA ANALYSIS METHOD(S)
			supplied by the private sector					
		3. How is the private sector advancing the development, promotion and sale of certified and foundation seed?	1. Number of seed dealers; 2. Number of certified and/or foundation seeds related advertisements via mass media (TV, Radio, Newspapers, etc.) by the private sector; 3. Extent to which private seed firms are involved (financing, negotiation, etc.) in the researches for new and improved seed; Amount of credit received by plant breeders 4. Extent to which Private seed firms are marketing improved seeds in other countries;	Interview	Interview Guide	Private sector seed firms (large and small seed firms in WA)	Purposive sampling	Thematic and descriptive analyses

FOCUS	EVALUATION QUESTION	SUB-QUESTION	INDICATORS TO BE MEASURED	DATA COLLECTION METHOD	DATA COLLECTION TOOL	DATA SOURCE	SAMPLING OR SELECTION CRITERIA	DATA ANALYSIS METHOD(S)
		4. What vulnerabilities/weaknesses/gaps still exist within the private sector? What can WASP do more to support the private sector in meeting existing gaps?	1. Extent to which private sector seed firm operations vitally depends on (financially), (availability or lack of it), etc.) external bodies (government, NGOs, seed research institutions; 2. Extent to which their operations are protected by law (Existence of regulatory frameworks to govern operations) 3. Activities private sector seed firms can/should do but are not doing (because they are unaware or do not have the resources etc.); 4. Extent to which Frameworks necessary for private sector to operate fully are available and functional 5. Recommendations to address identified gaps	Interview	Interview Guide	Private sector seed firms (large and small seed firms in WA)	Purposive sampling	Thematic and descriptive analyses

FOCUS	EVALUATION QUESTION	SUB-QUESTION	INDICATORS TO BE MEASURED	DATA COLLECTION METHOD	DATA COLLECTION TOOL	DATA SOURCE	SAMPLING OR SELECTION CRITERIA	DATA ANALYSIS METHOD(S)
C. Capacity Building Results and Potential for Sustainability	3. Is WASP's leadership in strengthening the seed system and advancing the ECOWAS Seed Regulations regarded as necessary (or integral to scaling-up seed input success) by their counterparts such as the International Agriculture Research Centers, and NARIs, etc.? A. Are the institutional structures/relationships now in place, for example within partnership institutions such as the NARIs, or are they being developed to sustain the relationships and investments that are being made by WASP?	1. To what extent is WASP's leadership in strengthening the seed system is necessary? To what extent is WASP's leadership in advancing the ECOWAS seed regulations is necessary?	1. Percentage of respondents reporting that WASP leadership is necessary	Interview	Interview Guide	International Agricultural Research Centers (IARCs) and National Agricultural Research Institutes (NARIs)	Purposive and quota sampling	Thematic and descriptive analyses
		2. To what extent is WASP considered relevant in strengthening the seed system? To what extent is WASP considered relevant in advancing ECOWAS Seed Regulations?	1. Percentage of respondents reporting that WASP is relevant	Interview	Interview Guide	International Agricultural Research Centers (IARCs) and National Agricultural Research Institutes (NARIs)s	Purposive and quota sampling	Thematic and descriptive analyses
		3. To what extent is WASP's leadership critical in strengthening seed system? To what extent is WASP's leadership critical in advancing the ECOWAS Seed Regulations?	1. Percentage of respondents reporting that advancement of ECOWAS Seed Regulations is dependent on WASP	Interview	Interview guide	ECOWAS (relevant department)	Purposive sampling	Thematic and descriptive analysis
			2. Publication of ECOWAS seed regulations in member states official gazette	Interview	Interview Guide	ECOWAS (relevant department)	Purposive sampling	Thematic and descriptive analysis
		4. What are the institutional structures and/or relationships	1. MOUs between WASP and NARIs signed;	Document review	Document Review Guide;	Partnership agreements, MoUs, program annual	Exhaustive review of relevant	Content and descriptive analyses

FOCUS	EVALUATION QUESTION	SUB-QUESTION	INDICATORS TO BE MEASURED	DATA COLLECT ION METHOD	DATA COLLECT ION TOOL	DATA SOURCE	SAMPLING OR SELECTION CRITERIA	DATA ANALYSIS METHOD(S)
		WASP established? What are the institutional structures and/or relationships WASP initiated?	2. MOUs between and IARCs signed; 3. Clear and identifiable relationships/partners hips between WASP and relevant institutions (IARCs, NARIs, etc.) with respect to seed activities;			and quarterly reports	documents	
				Interview	Interview Guide	NARIs and IARCs	Purposive sampling	Thematic and descriptive analysis
	5. What actions (structures, processes, etc.) have been taken since the establishment of ASIWA and COASem, to meet their respective objectives and to enable their sustainability? (Please include a description of the role/responsibility of core stakeholders, and address whether each has successfully understood and demonstrated their contribution.)	1. What steps has WASP taken to ensure that AISWA meets its objectives? What steps has WASP taken to ensure that COASem meets its objectives? What steps has WASP taken to ensure that AISWA goes beyond WASP completion date? What steps has WASP taken to ensure that COASem goes beyond WASP completion date? How effective are the institutional structures and/or relationships	1. Identifiable/verifiable actions taken to ensure the achievement of ASIWA and COASem objectives;	Document review	Document review guide	Program (WASP, ASIWA and COASem) documents (reports, memos, attendance sheets, etc.); and Program Staff and members	Exhaustive review of relevant documents	Content and descriptive analyses
				Interview	Interview Guide	CORAF/WASP team	Purposive sampling	Thematic analysis

FOCUS	EVALUATION QUESTION	SUB-QUESTION	INDICATORS TO BE MEASURED	DATA COLLECT ION METHOD	DATA COLLECT ION TOOL	DATA SOURCE	SAMPLING OR SELECTION CRITERIA	DATA ANALYSIS METHOD(S)
		2. To what extent have ASIWA and COASem members (core stakeholders) understood their roles and responsibilities?	1. Percentage of interviewed ASIWA and COASem members who explain satisfactorily their roles and responsibilities;	Document review	Document review guide	Program (WASP, ASIWA and COASem) documents (reports, memos, attendance sheets, etc.)	Exhaustive review of relevant documents	Content Analysis
				Interview	Interview Guide	CORAF/WASP team, ASIWA and COASem members	Random sampling	Comparative analysis
		3. What have been main accomplishments to the WASP objectives? How well do those accomplishments contribute to the attainment of the WASP objective?	1. Percentage of interviewees reporting and describing accomplishments; 2. Membership (number); Meetings (Frequency); Attendance (Number); 3. Activities undertaken per objective;	Document review (to obtain the objectives of ASIWA and COASem; and to identify activities implemented to address these objectives)	Document review Guide;	Program (WASP, ASIWA and COASem) documents (reports, memos, attendance sheets, etc.)	Exhaustive review of relevant documents	Content and descriptive analyses
				Interview (of ASIWA and COASem members (on challenges, opportunities, etc.)	Interview Guide	CORAF/WASP team, ASIWA and COASem members	Purposive sampling	Thematic analysis

FOCUS	EVALUATION QUESTION	SUB-QUESTION	INDICATORS TO BE MEASURED	DATA COLLECTION METHOD	DATA COLLECTION TOOL	DATA SOURCE	SAMPLING OR SELECTION CRITERIA	DATA ANALYSIS METHOD(S)
		4. To what extent has WASP taken steps to ensure that the relationships and investments it has made last after WASP ends? What is the likelihood that project approaches, practices and results will be lasting after WASP ends?	1. ASIWA and COASem constitutions available; 2. Leaders of ASIWA and COASem exist and functional 3. Percentage of respective budgets funded by WASP; 4. Sustainability plans for COASem and ASIWA exists and is implemented 5. ASIWA and COASem are legally recognized (registered)	Document review	Document Review Guide;	Program documents (WASP, ASIWA, and COASem);	Exhaustive review of relevant program documents	Content and descriptive analyses
		To what extent are ASIWA and COASem independent of WASP/CORAF leadership?		Interview	Interview Guide	CORAF/WASP team, ASIWA and COASem members	Purposive sampling	Thematic analysis
D. Strategic Areas of Results that are ready for Scale Up	2. What recommendations are there for strengthening, improving and building upon (scale-up) program successes of WASP sub-activity successes post-2017? (Include in your analysis the viability and approach WASP has taken to build supply and/or meet farmer demand for	1. What are WASP's key areas of success (strategic result areas)?	1. List of areas for which targets were met or exceeded	Document review	Document Review Guide	Program PMP (database), Annual project reports, PMP, Results Framework, WASP KPI's tracking table	Exhaustive review of relevant program documents	Comparative analysis
		2. What activities contributing to successes should USAID consider consolidating? What activities	1. List of activities to be consolidated 2. List of activities to be replicated 3. List of activities to be scaled up	Documentation review	Documentation review guide	Annual project reports, PMP, Results Framework, WASP KPI's tracking table	Exhaustive review of relevant program documents	Content and descriptive analyses

FOCUS	EVALUATION QUESTION	SUB-QUESTION	INDICATORS TO BE MEASURED	DATA COLLECTION METHOD	DATA COLLECTION TOOL	DATA SOURCE	SAMPLING OR SELECTION CRITERIA	DATA ANALYSIS METHOD(S)
	improved seed.)	contributing to successes should USAID consider replicating after 2017? What activities contributing to successes should USAID consider scaling up after 2017? What factors should be considered in the scaling up?	4. Factors affecting scaling up activities 5. Recommendations for strengthening, improving and building upon (scale-up) program successes	Interview	Interview Guide	CORAF/WASP team	Purposive sampling	Thematic analysis
		3. What are the result areas that should be considered in implementing Food Security programs in the sub-region?	Results areas that should be considered in implementing Food security programs in the sub-region	Document review	Document review guide	Annual project reports, PMP, Results Framework, WASP KPI's tracking table	Exhaustive review of relevant program documents	Content and descriptive analyses
		4. What lessons have been learned in the implementation of WASP?	1. Identifiable lessons learned in the implementation of WASP	Document review	Document Review Guide	Program Annual and Quarterly reports, activity reports	Sample annual and quarterly reports	Content and descriptive analyses
				Interview	Interview Guide	CORAF/WASP team	Purposive sampling	Thematic analysis
		5. How viable is the WASP approach for building supply and/or meeting farmer demand for improved seeds? How much demand has been generated?	1. Affordability level of WASP approach for building supply and/or meeting farmer demand for improved seed; 2. Dependency level of the approach on	Document review	Document Review Guide	Program Annual and Quarterly reports, activity reports	Sample annual, quarterly and activity reports	Content analysis
				Interview	Interview Guide	CORAF/WASP team	Purposive sampling	Thematic analysis

FOCUS	EVALUATION QUESTION	SUB-QUESTION	INDICATORS TO BE MEASURED	DATA COLLECTION METHOD	DATA COLLECTION TOOL	DATA SOURCE	SAMPLING OR SELECTION CRITERIA	DATA ANALYSIS METHOD(S)
		Are activities under WASP sufficient to fulfill demand?	WASP to function and be replicated. 3. Dependency level of the approach on CORAF to function and be replicated; 4. Seed needs reported 5. Quantity of seeds sold	Document review Interview	Review and interview guides	CORAF / WASP team	Purposive sampling	Content and thematic analysis

ANNEX 3. TOOLS FOR DATA COLLECTION

A. CORAF/WECARD & WASP

Name of Stakeholder				
Role in the WASP				
Interview Date (DD-MM-YYYY)		Start Time (HH:MM)		End Time (HH:MM)
Name of Key Participant				
Questions	Answer Summary <i>(Relevant to the Evaluation)</i>		Ranking and Analyses by Evaluation Team <i>(Highlighting the Evaluation Question Corresponding to the answer)</i>	
A: Progress to Date in Achieving Planned Results (40%)				
<i>Q1a: How successful has the WASP activity been in meeting its planned targets? If certain activity components have not been successful, please explain why (incorrect assumptions, programmatic issues such as lack of attention to gender/youth integration into the seed sector or lack of attention to fertilizer, private sector issues, staffing issues, etc.).</i> <i>b: What are the areas of WASP performance, if any, that require USAID attention?</i>				
1. Was there any manual developed to guide the implementation of WASP?				
2. What is the mechanism set up by CORAF/WECARD for monitoring progress made towards achieving WASP objectives?				
3. How does the CORAF/WECARD's M&E system contribute to the monitoring of WASP progress?				
4. Has WASP achieved some of its objectives? (If Yes), which objectives have been achieved and what factors led to their achievement?				
5. Are there objectives that are not on-track? (If Yes), which objectives are not on-track and what factors led to this?				
6. Have there been challenges in the implementation of WASP? Which ones? Why were these challenges? What steps have been taken to avoid recurrence or to mitigate their impact during the implementation period?				

Name of Stakeholder		
7. Are there activities planned per the work plan which are postponed/rescheduled? What is the rationale of rescheduling and/or postponing activities?		
8. In your view, how realistic were the WASP program assumptions?		
9. What lessons have been learned in the implementation of WASP?		
<i>Q7: To what extent has WASP considered fertilizer as a constraint in the use of seed varieties it is promoting? Please include in your analysis a review/description of the investments made by WASP in documenting fertilizer use during the field-testing stage.</i>		
10. Does WASP have a documented strategy in place to address or manage the 'fertilizer constraint'?		
11. What investments have WASP made in documenting fertilizer use?		
<i>Q8: How is WASP addressing the fertilizer issue (utility/supply/demand) in the move from breeder to foundation and certified seed?</i>		
12. What type of actions has WASP initiated to address the fertilizer constraint in the move from breeder to certified and foundation seeds?		
13. How appropriate are these measures?		
B: Team strength and collaboration modalities in support of improved seed production (15%)		
<i>Q4: What is the link and dependency between CORAF/WECARD and WASP? For example, please describe the types/amounts of technical support CORAF/WECARD provides to the WASP team, and vice versa.</i>		
<i>Q4a: Is it reasonable or not (and why) to expect CORAF/WECARD to replicate/scale the WASP demonstrated model of capacity support for breeder seeds throughout the NARIs in the West Africa region?</i>		
14. How is CORAF/WECARD involved in WASP activities?		
15. Was there any institutional adaptation made by your organization to cope with the additional work brought by your involvement in WASP activities (new recruitment, modification of organogram; changes in work method and required adjustments in planning CORAF/WECARD activities etc.)?		
16. How do WASP objectives align with that of CORAF/WECARD? Has CORAF/WECARD objectives changed over the period of WASP implementation? If Yes , how?		

Name of Stakeholder		
17. What type of technical support does WASP receive from CORAF/WECARD? And how much of this technical support is provided?		
18. What type of technical support does CORAF/WECARD receive from WASP? And how much of this technical support is provided?		
19. How effective are the working relationships between CORAF/WECARD and WASP?		
20. What requirements (pre-conditions) are necessary to replicate the WASP demonstrated model of capacity building support in the West Africa region?		
21. Is CORAF/WECARD in a position to meet these requirements?		
22. To what extent would the NARI's be qualified for taking over WASP?		
23. What is the mechanism set by CORAF/WECARD to correctly coordinate WASP implementation at regional and national levels?		
<i>Q6: How has the private sector fulfilled the roles expected of it in the regional seed sector? For example, describe the viability of the private sector and how it is advancing the development, promotion and sale of certified and foundation seed. Q6a: What vulnerabilities/weaknesses/gaps still exist within the private sector and what can be done to address them</i>		
24. What roles did WASP expect the private sector to fulfil in the regional seed sector?		
25. How has the private sector fulfilled this role?		
26. What activities private sector seed firms can/should do but are not doing (because they are unaware or do not have the resources)?		
27. Extent to which frameworks necessary for the private sector to function are fully available and operational?		
C: Capacity building results and the potential for sustainability (15%)		
<i>Q3: Is WASP's leadership in strengthening the seed system and advancing the ECOWAS Seed Regulations regarded as necessary (or integral to scaling-up seed input success) by their counterparts such as the International Agriculture Research Centers, and NARIs, etc.?</i> <i>Q3a: Are the institutional structures/relationships now in place, for example within partnership institutions such as the NARIs, or are they being developed to sustain the relationships and investments that are being made by WASP?</i>		
28. What type of institutional structures and linkages/relationships have		

Name of Stakeholder		
been put in place since the beginning of WASP to improve on partnership between the core stakeholders and optimize investments made by WASP;		
29. What type of support is provided by CORAF/WECARD to participating NARIs and private sector?		
<i>Q5: What actions (structures, processes, etc.) have been taken since the establishment of AISWA and COASem to meet their respective objectives and to enable their sustainability? Please include a description of the role/responsibility of core stakeholders, and address whether each has successfully understood and demonstrated their contribution.</i>		
30. Are the roles and responsibilities of each of the main stakeholders clearly defined (CORAF/WECARD, ECOWAS, ASIWA, COASem and NARIs, private sector and benefiting farmers etc.)?		
31. What actions have been taken by WASP and COARF for ASIWA and COASem to operate correctly and become sustainable so as to make a meaningful contribution to WASP objectives?		
32. What have been the accomplishments of ASIWA and COASem to the WASP objectives?		
33. How effective are the institutional structures within these organizations and their relationships with WASP/CORAF?		
34. Were the expectations from this joint Program clarified right from the beginning?		
35. To what extent has WASP taken steps to ensure that the relationships and investments it has made last after WASP ends?		
36. What is the likelihood that project approaches, practices, and results will be lasting after WASP ends?		
37. To what extent are ASIWA and COASem independent/dependent on WASP/CORAF leadership?		
D: strategic areas of results that are ready for scale up (30%)		
<i>Q2: What recommendations are there for strengthening, improving and building upon (scale-up) program successes of WASP sub-activity successes post-2017? Include in your analysis the viability and approach WASP has taken to build supply and/or meet farmer demand for improved seed.</i>		
38. Have there been success stories of the WASP at country-level and/or regional level? If yes, which ones? Can they be replicated?		

Name of Stakeholder		
39. Which of these can be replicated and/or scaled-up post-2017? What factors should be considered in replicating and/or scaling up these successes?		
40. What lessons have been learnt in the implementation of WASP		
41. What is the implementation strategy adopted by CORAF/WECARD and WASP to meet the need for improved seeds?		
42. Is WASP approach for building supply and/or meeting farmer demand for improved seed cost effective?		
43. Can this approach function in the absence of WASP? What factors are required to be in place for this approach to function effectively and without WASP?		
44. Can this approach function in the absence of CORAF/WECARD? What factors are required to be in place for this approach to function effectively and without CORAF/WECARD?		
45. What is the current seed supply deficit in all participating countries compared to pre-WASP period? What factors are contributing to this change?		

B. ASIWA & COASem

Name of Stakeholder				
Role in the WASP				
Interview Date (DD-MM-YYYY)	Start Time (HH:MM)		End Time (HH:MM)	
Name of Key Participant				
Questions	Answer Summary (Relevant to the Evaluation)	Ranking and Analyses by Evaluation Team (Highlighting the Evaluation Question Corresponding to the answer)		

Name of Stakeholder	
C: Capacity building results and the potential for sustainability (15%)	
<i>Q5: What actions (structures, processes, etc.) have been taken since the establishment of ASIWA and COASem to meet their respective objectives and to enable their sustainability? Please include a description of the role/responsibility of core stakeholders, and address whether each has successfully understood and demonstrated their contribution.</i>	
1. Were the expectations from this joint program (ASIWA-WASP; COASem-WASP) clarified right from the beginning to the main stakeholders?	
2. Do you think the roles assigned to ASIWA and COAsem by WASP are clearly defined?	
3. What actions have been taken by ASIWA and COASem to contribute to WASP objectives?	
4. What do you think about the way coordination of the different WASP stakeholders is done by CORAF/ WECARD at regional and national levels and how do ASIWA and COAsem contribute to that?	
5. What type of leadership does ASIWA and COASem actually provide the implementation of WASP?	
6. What type of leadership does WASP actually provide to the sustainability of ASIWA and COASem?	

C. WASP Beneficiary Seed Farmers

Name of Stakeholder	
Role in the WASP	
Interview Date (DD-MM-YYYY)	Start Time (HH:MM) End Time (HH:MM)
Name of Key Participant	
Questions	Answer Summary (Relevant to the Evaluation)
	Ranking and Analyses by Evaluation Team (Highlighting the Evaluation Question Corresponding to the answer)
A: Progress to Date in Achieving Planned Results (40%)	

Name of Stakeholder		
<i>Q8: How is WASP addressing the fertilizer issue (utility/supply/demand) in the move from breeder to foundation and certified seed?</i>		
1. a. Have you received production inputs? If Yes , which types?		
b. If you receive fertilizer , who provided it?		
D: strategic areas of results that are ready for scale up (30%)		
<i>Q2: What recommendations are there for strengthening, improving and building upon (scale-up) program successes of WASP sub-activity successes post-2017? Include in your analysis the viability and approach WASP has taken to build supply and/or meet farmer demand for improved seed.</i>		
2. How did you get hear about WASP and how did you get involved?		
3. If yes, did you participate also in those projects? What are the differences between those projects and the WASP support?		
4. Have your production levels of seeds changed since you got into WASP? If it has increased, what is the approximate level of change?		
5. Have you been able to sell all the seeds you produce?		
6. How do you market your seeds ?		

D. NARIs, IARCs and Ministry of Agriculture

Name of Stakeholder			
Role in the WASP			
Interview Date (DD-MM-YYYY)		Start Time (HH:MM)	End Time (HH:MM)
Name of Key Participant			
Questions	Answer Summary (Relevant to the Evaluation)	Ranking and Analyses by Evaluation Team (Highlighting the Evaluation Question Corresponding to the answer)	
A: Progress to Date in Achieving Planned Results (40%)			

Name of Stakeholder		
<i>Q1a: How successful has the WASP activity been in meeting its planned targets? If certain activity components have not been successful, please explain why (incorrect assumptions, programmatic issues such as lack of attention to gender/youth integration into the seed sector or lack of attention to fertilizer, private sector issues, staffing issues, etc.). b: What are the areas of WASP performance, if any, that require USAID attention?</i>		
1. When did you get involved in the WASP program? How have you been involved in WASP?		
2. Have there been success stories of the WASP in your country? If yes, which ones?		
3. Have there been challenges in the implementation of WASP? Which ones? Why were these challenges?		
4. In your opinion, what has been the most useful WASP activities, among all those introduced, from a beneficiary's point of view?		
5. In the light of the experience gained by WASP during the implementation period so far, in which technical area do you think there is a need for additional specialized technical assistance?		
6. How far is the country with regards to the process of complying with ECOWAS seed regulation?		
7. How much of breeder seeds did the country (insert country name) produce 2012-2015?		
8. How many individuals have enrolled in Masters and PhD with assistance from WASP?		
B: Team strength and collaboration modalities in support of improved seed production (15%)		
<i>Q4: What is the link and dependency between CORAF/WECARD and WASP? For example, please describe the types/amounts of technical support CORAF/WECARD provides to the WASP team, and vice versa.</i> <i>Q4a: Is it reasonable or not (and why) to expect CORAF/WECARD to replicate/scale the WASP demonstrated model of capacity support for breeder seeds throughout the NARIs in the West Africa region?</i>		
9. Was there any institutional adaptation made by your organization to cope with the additional work brought by your involvement in WASP activities?		
C: Capacity building results and the potential for sustainability (15%)		
<i>Q3: Is WASP's leadership in strengthening the seed system and advancing the ECOWAS Seed Regulations regarded as necessary (or integral to scaling-up seed input success) by their counterparts such as the International Agriculture Research Centers, and NARIs, etc.?</i> <i>Q3a: Are the institutional structures/relationships now in place, for example within partnership institutions such as the NARIs, or are they being developed to</i>		

Name of Stakeholder		
<i>sustain the relationships and investments that are being made by WASP?</i>		
10. To what extent will you consider WASP's leadership in strengthening the seed system as necessary and/or relevant?		
11. To what extent will you consider WASP's leadership in advancing the ECOWAS seed regulations as necessary and/or relevant?		
12. What institutional structures and/or relationships has WASP established or initiated?		
13. Was your institution's role and responsibilities in WASP clearly defined?		
<i>Q2: What recommendations are there for strengthening, improving and building upon (scale-up) program successes of WASP sub-activity successes post-2017? Include in your analysis the viability and approach WASP has taken to build supply and/or meet farmer demand for improved seed.</i>		
14. Have there been any major external factors (social, economic, environmental, other) positively/negatively affecting the WASP activities and beneficiaries since the beginning of the project? If yes, which ones and how did it affect WASP?		
15. What are the preliminary results that are worth duplicating? How?		

E. Private Sector

Name of Stakeholder				
Role in the WASP				
Interview Date (DD-MM-YYYY)		Start Time (HH:MM)		End Time (HH:MM)
Name of Key Participant				
Questions	Answer Summary (Relevant to the Evaluation)		Ranking and Analyses by Evaluation Team (Highlighting the Evaluation Question Corresponding to the answer)	
B: Team strength and collaboration modalities in support of improved seed production (15%)				
<i>Q6: How has the private sector fulfilled the roles expected of it in the regional seed sector? For example, describe the viability of the private sector and how it is advancing the development, promotion and sale of certified and foundation seed. Q6a: What vulnerabilities/weaknesses/gaps still exist within the private sector and what can be done to address them?</i>				

Name of Stakeholder		
1. What roles are the private sector expected to fulfil in the regional seed sector under WASP?		
2. Are these roles clearly defined?		
3. How has the private sector fulfilled this role?		
4. How viable is the private sector?		
a. Extent to which private sector is dependent (financially, technically, etc.) on external support (NGOs, IARCs, NARI)?		
b. Has there been a change in the seed supplied by the private between the pre-WASP period and currently?		
5. How is the private sector advancing the development, promotion and sale of certified and foundation seeds?		
a. Changes (increase) in the number of seed dealers?		
b. Number of certified and/or foundation seeds related advertisements via mass media?		
c. Extent to which private seed firms are involved in the researches for new and improved seeds		
d. Extent to which Private seed firms are marketing improved seeds in other countries;		
6. What can WASP do to support the private sector in meeting existing gaps?		
a. Extent to which private seed firms' operations are protected or supported by national and regional rules and regulations (existence of regulatory frameworks to govern operations);		
b. Activities private sector seed firms can/should do but are not doing (because they are unaware or do not have the resources?		
c. Extent to which frameworks necessary for the private sector to function are fully available and operational?		
7. Did CORAF and WASP explain clearly what is expected from the private sector in terms of seed production and promotion of use of certified seeds?		

Name of Stakeholder		
8. How is the private sector contributing to improving the national and regional seed sector?		
9. What are the areas in which the private sector is mostly concentrating its efforts and why?		
10. What organization/partnership are put in place by the private sector for their contribution in the seed production and trade at the national and regional levels?		
11. How far is the private sector involved in the research, production, certification, quality control and trade of improved seed and regulations?		
12. Is the private sector contributing to the implementation of a Market information system for improved seeds at national and regional levels?		
13. How is the private sector helping set up a mechanism/ framework for collaborating with CORAF and WASP to achieve WASP objectives?		

F. ECOWAS, CILSS, UEMOA

Name of Stakeholder					
Role in the WASP					
Interview Date (DD-MM-YYYY)			Start Time (HH:MM)		End Time (HH:MM)
Name of Key Participant					
Questions	Answer Summary (Relevant to the Evaluation)	Ranking and Analyses by Evaluation Team (Highlighting the Evaluation Question Corresponding to the answer)			
B: Team strength and collaboration modalities in support of improved seed production (15%)					
Q6: How has the private sector fulfilled the roles expected of it in the regional seed sector? For example, describe the viability of the private sector and how it is advancing the development, promotion and sale of certified and foundation seed. Q6a: What vulnerabilities/weaknesses/gaps still exist within the private sector and what can be done to address them					

Name of Stakeholder		
1. Extent to which frameworks necessary for the private sector to function are fully available and operational?		
C: Capacity building results and the potential for sustainability (15%)		
<i>Q3: Is WASP's leadership in strengthening the seed system and advancing the ECOWAS Seed Regulations regarded as necessary (or integral to scaling-up seed input success) by their counterparts such as the International Agriculture Research Centers, and NARIs, etc.?</i> <i>Q3a: Are the institutional structures/relationships now in place, for example within partnership institutions such as the NARIs, or are they being developed to sustain the relationships and investments that are being made by WASP?</i>		
2. To what extent is WASP leadership necessary and/or relevant in strengthening seed systems?		
3. To what extent is WASP considered necessary and/or relevant in advancing ECOWAS Seed Regulations ?		
GENERAL QUESTIONS		
4. How and when is your institution involved in WASP activities?		
5. Did your institution assist in setting up institutional structures needed to implement at the national level the regionally-agreed harmonization and trade rules as far as seeds are concerned? Briefly explain how.		
6. Was there any institutional adaptation made by your organization to cope with the additional work brought by your involvement in WASP activities (new recruitment, modification of organogram; changes in work method and required adjustments in planning CORAF activities etc.)?		
7. Were the expectations from this joint program clarified to your institution right from the beginning?		
8. Are the role and responsibility of each of the main stakeholder clearly defined (CORAF, ECOWAS, ASIWA, COASem and NARIs, private sector and benefiting farmers etc.)?		
9. According to your institution, what improvement can be made to the coordination mechanism so as to accelerate achievement of WASP objective?		

G. OTHER Partners - WAAPP

KEY INFORMANT INTERVIEW & FOCUS GROUP DISCUSSIONS					
Name of Stakeholder					
Role in the WASP					
Interview Date (DD-MM-YYYY)			Start Time (HH:MM)		End Time (HH:MM)
Name of Key Participant					
Questions		Answer Summary (Relevant to the Evaluation)		Ranking and Analyses by Evaluation Team (Highlighting the Evaluation Question Corresponding to the answer)	
1. Briefly tell us about the West Africa Fertilizer Program. Which countries are you working in?					
2. Do you know about the West Africa Seed Program (WASP)?					
3. Have you been working with WASP in any of the WAFP countries? If yes, how are you working with WASP					
4. When did this collaboration with WASP start and how was this established (e.g. signing of MoU etc.)?					
5. In what ways can this collaboration be improved?					
6. Can this collaboration with WASP be replicated in other countries? Briefly explain					
7. If NO collaboration exists between WASP and WAFP in any of the countries they work in, how can the two programs collaborate?					
8. Does WAFP work with agricultural research institutions at either regional or national level?					
9. If yes, what kind of collaboration exists between the two and what type of support does WAFP give to these research institutions?					
10. Does WAFP provide fertilizer to seed breeders in national or international agricultural research institutions?					

KEY INFORMANT INTERVIEW & FOCUS GROUP DISCUSSIONS		
Name of Stakeholder		
11. Does WAFP provide fertilizer subsidies to farmers? If yes, what percentage is subsidized?		
12. What are the types of fertilizers being used in the region with respect to cereals production? a. Maize b. Rice c. Sorghum d. Millet		
13. What is the new formulation of N-P-K that is about to be released?		

H. Document Review Guide

Title of Document Reviewed		
Origin/Source/Author of Document		
Date of Publication (DD-MM-YYYY)		
Abstract relevant to the Evaluation		
Evaluation Questions	Information Generated/Collected by the Indicators	Comments and Analyses by the Evaluation Team
Q1a: How successful has the WASP activity been in meeting its planned targets? If certain activity components have not been successful, please explain why (incorrect assumptions, programmatic issues such as lack of attention to gender/youth integration into the seed sector or lack of attention to fertilizer, private sector issues, staffing issues, etc.). b: What are the areas of WASP performance, if any, that require USAID attention?		
Q2: What recommendations are there for strengthening, improving and building upon (scale-up) program successes of WASP sub-activity successes post-2017? Include in		

<i>your analysis the viability and approach WASP has taken to build supply and/or meet farmer demand for improved seed.</i>		
<i>Q3: Is WASP's leadership in strengthening the seed system and advancing the ECOWAS Seed Regulations regarded as necessary (or integral to scaling-up seed input success) by their counterparts such as the International Agriculture Research Centers, and NARIs, etc.?</i>		
<i>Q3a: Are the institutional structures/relationships now in place, for example within partnership institutions such as the NARIs, or are they being developed to sustain the relationships and investments that are being made by WASP?</i>		
<i>Q4: What is the link and dependency between CORAF/WECARD and WASP? For example, please describe the types/amounts of technical support CORAF/WECARD provides to the WASP team, and vice versa.</i> <i>Q4a: Is it reasonable or not (and why) to expect CORAF/WECARD to replicate/scale the WASP demonstrated model of capacity support for breeder seeds throughout the NARIs in the West Africa region?</i>		
<i>Q5: What actions (structures, processes, etc.) have been taken since the establishment of AISWA and COASem to meet their respective objectives and to enable their sustainability? Please include a description of the role/responsibility of core stakeholders, and address whether each has successfully understood and demonstrated their contribution.</i>		
<i>Q6: How has the private sector fulfilled the roles expected of it in the regional seed sector? For example, describe the viability of the private sector and how it is advancing the development, promotion and sale of certified and foundation seed. Q6a: What vulnerabilities/weaknesses/gaps still exist within the private sector and what can be done to address them</i>		
<i>Q7: To what extent has WASP considered fertilizer as a constraint in the use of seed varieties it is promoting? Please include in your analysis a review/description of the investments made by WASP in documenting fertilizer use during the field-testing stage.</i>		
<i>Q8: How is WASP addressing the fertilizer issue (utility/supply/demand) in the move from breeder to foundation and certified seed?</i>		

ANNEX 4. SWOT ANALYSIS – WEST AFRICA SEED PROGRAM – WASP

Factors	Positive	Negative
Internal	<i>Strengths</i> • Widely adopted regional seed regulation - awareness created in most ECOWAS-UEMOA-CILSS member states. • Breeder seed certification institutionalized and implemented across the region. • Regional task force established as a mechanism for the effective implementation of seed regulations • Tools for forecasting breeder, foundation and certified seed demand, production and supply developed. • Partnerships established between Breeding unit at NARIs and CGIARs and Private sector for breeder seed production and supply. • Increased breeder seed production in WA through WASP support. • New resilient varieties promoted. • Capacities (human, logistics, laboratory) of seed units strengthened. • Training modules in quality seed production developed • Advocacy conducted on the liberalization of foundation seed production by the private sector. • Private companies producing foundation seed with WASP support. • Template for business plan development produced. • Business plans developed for seed companies • Extensive training provided to seed companies in business management • WASP is facilitating seed companies access to commercial banks and Micro Finance Institutions (MFIs) • National seed trade associations strengthened. • National and regional level ASIWA established as a hub of information. • Seed market developed through demand creation activities and	<i>Weaknesses</i> • Inadequate skilled personnel in seed production and quality management. • Inadequate skilled personnel in private sector – including seed scientists and breeders. • Insufficient and inappropriate infrastructure and equipment • Some countries are not using the Seed Forecasting Tool. • Breeder seed production too dependent on project funding. • Insufficient funding for breeder seed production • Lack of business approach in the production and supply of breeder seeds • Attractiveness of foundation and certified seed industry not fully appreciated by investors. • Exhaustive business models for specific crops in specific zones not yet established. • High interest rates and unfavorable loan conditions. • National seed trade associations not fully functional. • Lack of accredited seed labs for testing seed quality: Ghana to be audited to conform to International Seed Testing Association (ISTA) laboratory standards. • The Ebola Initiative showed inadequate adherence to the ECOWAS and UEMOA protocols for free movement of persons and goods.

	electronic platform (WASIX). • WASP Seed Forecasting Tool improves annual assessment of actual and potential improved seed demand and supply (both volume and values). • Through the Ebola Initiative, regional regulation on seed movement were tested. • Challenges in cross-border seed trade identified and solutions proposed. • Seed systems rebuilt in affected counties. • Suitable varieties to agro-ecological conditions in affected countries supplied through regional coordination. • Model contracts for regional seed trade and for crises management developed. • Through the WASP initiated M&E System, Performance Management Plan (PMP) was designed. • Improved data collection and analysis tools in place. • Country teams and implementing partners trained. • IFDC's WAFR M&E inspired by the WASP M&E model. • Strong level commitment at CORAF's for an improved M&E system	• Excessive restriction at borders, which results in delay in delivery of seed, quality deterioration and increased cost. • Immense delays in administrative procedures for the movement of seeds and regional trade. • With the WASP M&E, there are challenges in completion of the data collection protocols at country level. • The staff turn-over affected 2015 and 2016 data collection and filing processes. • Weak budget planning and monitoring and prioritization.
External	<i>Opportunities</i>	<i>Threats</i>
	• ECOWAS-CILSS-UEMOA Tripartite agreement in process of conclusion to allow Chad and Mauritania adopt ECOWAS seed law. • WASP can partner with existing initiatives (AGRA-PASS, WACCI, Africa Seed, etc.). • Growing need for improved seeds among producers. • ECOWAP (NAIP, RAIP) to support seed sector. • Private Banks' willingness to fund seed sector. • ECOWAS seed regulation allowing private sector to produce foundation seeds. • Growing liberalization of foundation seed production. • Expanding improved seed market due to higher awareness. • Local expertise available in business plan development. • Stakeholders and partners for crises management available in the region. • Seed companies and enterprises available to promptly react to crisis. • Crop varieties to mitigate crises available in the region. • Crises are eminent and the needs for anticipation and preparation are	• Low national commitment to provide seed sector support funding. • Regional security and crises. • Lack of political will in some countries • Regional security and crises • Limited access to low interest credit. • Reluctance of the public sector in some countries to allow the private sector to produce foundation seeds. • Climate change: erratic rain. • Unfavorable government policy that interferes with private sector development, i.e. enforcement of IPR, implementation of regional seed regulations. • Private sector is fearful of litigating against the government for fear of retaliation. • Language barriers impeding seed trade across countries.

	essential. • USAID’s full support in establishment of an online M&E system. • Skills available at local, regional and international levels for the development of web-based M&E system	• Poor road networks. • Current conditions at CORAF to motivate and retain highly skilled personnel.
Way forward thinking	<i>So what?</i> • <u>While the WA seed industry is still developing and has major financial issues (securing loans, etc.), it is a higher-end, niche, business to business (B-to-B), linked to the value-chain where there are pockets of success.</u> In establishing ASIWA and COASem, WASP has substantially helped shore up the industry. But additional funding of WASP is critical to help the industry reach the next level. • <u>CORAF/WASP with the support of USAID-WA should develop a fund-raising plan to leverage investment funds for the seed industry, i.e. including funding from bilateral Missions, private sector and other donors.</u> USAID bilateral support of WASP is important for enabling a young industry to get on its feet, and would help alleviate some administrative, financial and cash-flow issues currently faced by WASP. There are some good models of PPP that exist in some of the ECOAS countries that need replicating. • <u>USAID-WA should take necessary actions for better synergy between WASP and WAFP.</u> Both programs want to collaborate and realize the importance of a “package approach” of seed, fertilizer and GAPs for greater productivity and food security in WA. • <u>There is a need for new partners to be involved in WASP for greater private sector involvement as IP – implementing partners (ROPPA, AFSTA, NASTAs, etc.) to ensure satisfactory implementation IR4 of the WASP result framework.</u> This is an important exit strategy for WASP. There needs to be a greater “sense of urgency” for industry to step-up. • <u>WASP needs to facilitate the procurement of guaranteed loans at affordable rates for seed producers.</u> • <u>USAID should provide CORAF with budget support to reinforce its institutional capacity so as to allow CORAF to fulfill its general mandate.</u> Sustainable funding of CORAF is problematic since the World Bank requirement of a 3% contribution from ECOAS countries has dwindled to 1%. • <u>To better enable the WA seed industry, WASP should consider the integration of high value vegetable seed production within the ECOWAP priority crops.</u> USAID can capitalize on growth opportunities to serve growing urban and peri-urban markets with niche, vegetable crops that can be intensively grown under small acreage, bring cash-flow to small-holders, enhance nutrition, food security, and favor women growers. Some WASP seed specialists, with expertise in vegetable breeding, are producing foundation and hybrid seed through WAAPP and helping the WA vegetable seed industry. Collaborative opportunities exist with the USAID Horticulture Innovation Lab, AVRDC and AGRA-PASS. The use of hybrid seed and opportunities of IPR (which are common in other parts of Africa) will greatly enhance the WA seed industry.	

ANNEX 5. SIX WASP RESULTS FOR SCALE UP

A. Seed Regulation Implementation

(harmonization of regulations with focus on five countries lagging behind; certification of breeder, foundation and certified seeds; intellectual property issues)

Factors	Positive	Negative
Internal	<i>Strengths</i>	<i>Weaknesses</i>
	Widely adopted regional seed regulation Awareness created in most ECOWAS-UEMOA, CILSS member states Seed regulatory agents trained (variety release, seed quality control and certification, phytosanitary certification...) Breeder seeds certification institutionalized and out-scaled across the region Regional task force established as a mechanism for the effective implementation of seed regulations	Limited human resources Inadequate skilled human resources Insufficient and inappropriate infrastructure and equipment
External	<i>Opportunities</i>	<i>Threats</i>
	ECOWAS-CILSS-UEMOA Tripartite agreement in process of conclusion to allow Chad and Mauritania adopt ECOWAS seed law. Existing of other initiatives (AGRA-PASS, WACCI, Africa Seed, etc.) to partner with Favorable policy environment (CAADEP, ECOWAP, PAU)	Low national commitment to provide seed sector support fund Regional security and crises Lack of political will in some countries
Way forward thinking	<i>So what?</i>	
	Strengthening capacities in the implementation of ECOWAS regulations • Training in variety release, certification, phytosanitary • Promoting IPR in the region to support seed sector development • Advocate for more funding (both public and private) to support the seed sector with regard to infrastructure, equipment and adequate personnel	

B. Seed Forecasting Tool

For demand and supply (Sokona et al. 2015. Mainstreaming Seed Demand Forecasting in the Agenda of Private and Public Sector Seed Actors. *Technical WASP Report 2015*).

Factors	Positive	Negative
Internal	<i>Strengths</i>	<i>Weaknesses</i>
	Tools for forecasting breeder, foundation and certified seeds' demand, production and supply developed Partnerships established between Breeding unit at NARIs and CGIARs and Private sector for breeder seed production and supply Increased volume of breed seeds production New resilient varieties promoted Capacities (human, logistics, laboratory) of seed units strengthened Seed processing, conditioning and laboratory equipment provided to some NARIs (4 countries). Training modules in quality seed production developed Models for selection of postgrad students developed and shared with universities.	Few countries covered using the tool Breeder seed production mostly supported through project funding Insufficient funding for breeder seed production Inadequate skilled personnel in seed production and quality management Insufficient seed scientists for proper breeder seed production Lack of business approach in the production and supply of breeder seeds
External	<i>Opportunities</i>	<i>Threats</i>
	Growing need for improved seeds among producers. ECOWAP (NAIP, RAIP) to support seed sector. Private banks wiliness to fund seed sector. Existence specialized training institutions (WACCI, KNUST, University of Ouagadougou, Thies, Saint Louis...) to train seed specialist	Regional security and crises
Way forward thinking	<i>So what?</i>	
	Upscale the seed forecasting mechanism in all target countries NARIs Seed Units to produce breeder seeds as a business venture Capitalize on existing mechanisms to operate a sustainable revolving fund to support the seed sector Facilitate the establishment of functioning seed laboratories and processing centers Facilitate post graduate training to create a critical mass of seed scientists in the region	

C. Private sector production of Foundation Seed

Factors	Positive	Negative
Internal	<i>Strengths</i>	<i>Weaknesses</i>
	Tools for forecasting breeder, foundation and certified seeds' demand, production and supply developed Advocacy conducted on the liberalization of foundation seed production by the private sector Private companies started producing foundation seed with WASP support Seed companies linked with NARIs and CGIARs for access to breeder seed Increased availability of breeder seed in WA through WASP support	Forecasting Tools used in few countries Inadequate skilled personnel in private sector Foundation seed production not seen as a viable business opportunity Profitability of FS production yet to be established Limited irrigation facilities.
External	<i>Opportunities</i>	<i>Threats</i>
	ECOWAS seed regulation allowing private sector to produce foundation seeds. Growing liberalization of foundation seed production Expanding improved seed market due to higher awareness High motivation of the private sector to produce the all early generation seeds.	Public sector (research institutions) weak commitment to supply quality breeder seeds Government policies that may interfere in private sector development Limited access to low interest credit Reluctance of the public sector in some countries to allow the private sector produce foundation seeds Erratic rain falls
Way forward thinking	<i>So what?</i>	
	Continue advocacy for liberalization of foundation seed production in reluctant countries; Upscale the seed demand forecasting mechanism in all target countries; Strengthen the technical and infrastructural capacities of seed enterprises to produce foundation seed; Capitalize on existing mechanisms to operate a sustainable revolving fund to support the seed sector including access to credit and fertilizers; Integrate the breeder, foundation and certified seeds' production into high-value market segments; Develop business models and modules for foundation seed enterprises.	

D. The WASP Seed Business Model

For Sustainable Supply of Breeder, Foundation and Certified Seed.

Factors	Positive	Negative
Internal	<i>Strengths</i>	<i>Weaknesses</i>
	Template for business plan development produced Business plans developed for seed companies Extensive training provided to seed companies in business management Seed companies linked to commercial banks and MFIs National seed trade associations strengthened. National and regional level ASIWA established as a hub of information. Seed market developed through demand creation activities and electronic platform (WASIX). Annual assessment of actual and potential improved seed demand and supply (both volume and values).	Exhaustive business models for specific crops in specific zones not yet established (A business model imbeds the definition of the size of the target market, the level of first investment, partners, resources, value creation and profitability). Proper regional seed market study yet to be conducted to identify the actual seed market size (demand, price, competitors...) Lack of accredited seed lab to
External	<i>Opportunities</i>	<i>Threats</i>
	Local expertise available in business plan development	Unfavorable government policy that interferes with private sector development
Way forward thinking	<i>So what?</i>	
	Conduct global seed market study to support the development of business models Develop exhaustive business models for specific crops in specific zones Spread the business models developed among ASIWA stakeholders; Bring more financial institutions on board to fund the private companies' business plans.	

E. Regional Resiliency in Seed Regulation & Trade: Success of the Ebola Initiative Experience

Factors	Positive	Negative
Internal	<i>Strengths</i>	<i>Weaknesses</i>
	Regional regulation on seed movement tested Challenges in cross-border seed trade identified and solutions proposed Seed system rebuilt in affected counties Suitable varieties to agro-ecological conditions in affected countries supplied through regional coordination After crisis food insecurity mitigated Model contracts for regional seed trade and for crises management developed	Inadequate adherence to the ECOWAS and UEMOA protocols for free movement Excessive restriction at borders, which results in delay in delivery of seeds, quality deterioration and increased cost. Immense delays in administrative procedures for the movement of seeds and regional trade
External	<i>Opportunities</i>	<i>Threats</i>
	Stakeholders and partners for crises management available in the region Seed companies and enterprises available to promptly react to crisis Crop varieties to mitigate crises available in the region. Crises are eminent and the needs for anticipation and preparation are essential. Reflections at ECOWAS to establish a regional seed bank for crisis mitigation.	Language barriers across countries Poor road networks Insecurity situation in the region for mass movement of seeds
Way forward thinking	<i>So what?</i>	
	Sensitize wider stakeholders on policies and regulations on free movement and regional trade to reduce obstacles and hindrances Strengthen capacities for early warning systems and collaborate with organizations with that capacity A need to have seed reserve stock for emergency situations caused by climate change (including drought and floods), human epidemic, plant pest and disease outbreaks, etc. Continuous development of resilient crop varieties.	

F. The WASP M&E System

To Consolidate and Replicate.

Factors	Positive	Negative
Internal	<i>Strengths</i>	<i>Weaknesses</i>
	PMP designed Data collection and analysis tools in place. Country teams and implementing partners trained Photo galleries available online CORAF M&E System Strengthened through WASP IFDC's WAFP M&E inspired by the WASP M&E model Strong level commitment at CORAF's for good M&E system	Challenges in completion of the data collection protocols at country level Special studies identified in the PMP yet to be conducted The online database scheduled yet to be implemented The staff turn-over affected 2015 and 2016 data collection and filing process The link to access photo galleries not widely circulated Weak budget planning and monitoring and prioritization.
External	<i>Opportunities</i>	<i>Threats</i>
	New M&E Specialist with expertise in socio economic studies and experience in management on online M&E application development USAID's full support in establishment of an online M&E system Skills available at local, regional and international levels for the development of web-based M&E system	Conditions at CORAF to motivate and keep high skilled personnel.
Way forward thinking	<i>So what?</i>	
	Review the PMP and data collection protocols Conduct periodic assessment of the M&E system and implement recommendations Plan and conduct special studies with focus on impact indicators Develop an online M&E system Train regional staff members, countries teams and partners on the online M&E system Ensure appropriate and consultative budget planning and monitoring Conduct regular internal data quality assessment.	

ANNEX 5. SEED FORECASTING TOOL

SeedPlan 5.2 is comprised of three worksheets:

1. [OPV-SPV](#) for open- or self-pollinated variety production;
 2. [SX Hybrid](#) for single-cross hybrid seed production;
 3. [TW Hybrid](#) for three-way hybrid seed production; and
 4. [DC Hybrid](#) for double-cross hybrid seed production.
- Select the appropriate sheet for the kind of variety to be produced.

On each worksheet there are two main tables:

1. The upper table calculates the amounts of parent seed that must be produced in any given year to achieve the planned sales targets in future years. To use this table, enter the variety name and parental component names (in the case of hybrids) and enter the forecasted sales plan. Then, enter in the small tables below this, the seeding rates, average seed yields of the parental components and a reserve factor. The spreadsheet calculates the amount of seed and the area of production required for each seed class and parental component. In this case, the reserve factor has the effect of producing more seed than the planned sales, so that there will be a percentage of certified seed in reserve to cover for un-planned production constraints or improved sales.
2. The lowest table calculates the potential amount of certified seed that may be produced in the future from a given present stock of parent seed. In this table, enter the stocks of seed available for each seed class and parental component, the seeding rates, average yields of parental components and a reserve factor. In this case, the reserve factor has the effect of keeping in reserve a specified percentage of parental seed stocks.

On each worksheet, cells that are light blue in colour may be modified. All other cells are protected.

The assumptions for each seed plan are entered in the central section of each worksheet.

CIMMYT hereby accepts no liability for the use of SeedPlan 4 spreadsheets.

TABLE OPV.1: The minimum quantities and areas of breeders and basic seed required to produce the future certified seed production goals of an Open- or Self-Pollinated Variety								
			2014	2015	2016	2017	2018	2019
Certified	ZM523	Sales Target		100 t	400 t	600 t	10 000 t	20 000 t
		Production	100 t	400 t	600 t	10 000 t	20 000 t	
		Area required	29 ha	114 ha	171 ha	2 857 ha	5 714 ha	
Basic	ZM523	Production	2.3 t	3.4 t	57.1 t	114.3 t		
		Area required	0.7 ha	1.0 ha	16.3 ha	32.7 ha		
Pre-basic	ZM523	Production	20 kg	327 kg	653 kg			
		Area required	0.01 ha	0.09 ha	0.19 ha			
Breeders	ZM523	Production	1.9 kg	3.7 kg				
		Area required	5 m2	11 m2				
			Certified	Basic	Pre-basic	Breeders		
		Reserve Factor	0%	0%	0%	0%		
		Seed Rates	kg/ha	kg/ha	kg/ha	kg/ha		
		ZM523	25	20	20	20		
		Yields	t/ha	t/ha	t/ha	t/ha		
		ZM523	3.5	3.5	3.5	3.5		
TABLE OPV.2: The potential seed production in future years considering the present stocks of Basic and Breeders' Seed Available								
			STOCKS	REQUIRED				
			2014	2014	2015	2016	2017	
Certified	ZM523	Pot. Sales			14 000 t	30 625 t	53 594 t	
		Pot. Prod'n.			14 000 t	30 625 t	53 594 t	
		Area required			4 000 ha	8 750 ha	15 313 ha	
Basic	ZM523	Production	100.0 t	100.0 t	175.0 t	306.3 t		
		Area required			50.00 ha	87.50 ha		
Pre-basic	ZM523	Production	1000 kg	1000 kg	1750 kg			
		Area required			0.50 ha			
Breeders	ZM523	Production	10.0 kg	10.0 kg				
		Area required						

TABLE SX.1: This table presents the minimum quantities and areas of breeders and basic seed required to produce the certified seed production goals of single cross hybrid in the following year								
			2012	2013	2014	2015	2016	2017
Certified	CZH0803	Sales Target		10 t	50 t	100 t	1 500 t	2 000 t
		Production	11 t	56 t	111 t	1 667 t	2 222 t	
		Area required	4 ha	22 ha	44 ha	667 ha	889 ha	
Basic	CML444 (Female)	Production	0.44 t	0.9 t	13.3 t	17.8 t		
		Area required	0.1 ha	0.3 ha	4.4 ha	5.9 ha		
	CML395 (Male)	Production	0.16 t	0.3 t	4.7 t	6.3 t		
		Area reqd.	0.1 ha	0.2 ha	2.4 ha	3.1 ha		
Pre-basic	CML444 (Female)	Production	7 kg	111 kg	148 kg			
		Area required	0.005 ha	0.074 ha	0.099 ha			
	CML395 (Male)	Production	4 kg	59 kg	78 kg			
		Area required	0.003 ha	0.049 ha	0.065 ha			
Breeders	CML444 (Female)	Production	1.9 kg	2.5 kg				
		Area required	12 m2	16 m2				
	CML395 (Male)	Production	1.2 kg	1.6 kg				
		Area required	10 m2	14 m2				
			Certified	Basic	Pre-basic	Breeders		
		Reserve Factor	10%	15%	0%	0%		
		Seed Rates	kg/ha	kg/ha	kg/ha	kg/ha		
		Female	17					
		Male	6					
		Sole crop		25	25	25		
		Seed Yields	t/ha	t/ha	t/ha	t/ha		
		Female alone		3.0	1.5	1.5		
		Male alone		2.0	1.2	1.2		
		A/B (SX Hybrid)	2.5					

TABLE SX.2: This table presents the potential seed production considering the stocks of Basic and Breeders' Seed Available							
			STOCKS	REQUIRED			
			2012	2012	2013	2014	2015
Certified	CZH0803	Sales Target			10 t	13 500 t	810 t
		Pot. Prod'n.			11 t	15 000 t	900 t
		Area required			4 ha	6 000 ha	360 ha
Basic	CML444 (Female)	Production	2.0 t	0.072 t	120.0 t	7.2 t	
		Area required			40 ha	2 ha	
	CML395 (Male)	Production	0.0 t	0.026 t	80.0 t	3.8 t	
		Area required			40.0 ha	1.9 ha	
Pre-basic	CML444 (Female)	Production	1.000 t	1.700 t	0.060 t		
		Area required			0.04 ha		
	CML395 (Male)	Production	1.000 t	0.750 t	0.048 t		
		Area required			0.04 ha		
Breeders	CML444 (Female)	Production	1.00 kg	1.70 kg			
		Area required					
	CML395 (Male)	Production	1.00 kg	0.94 kg			
		Area required					

TABLE TW.1: The minimum quantities and areas of breeders and basic seed required to produce the certified seed production goals of a three-way hybrid in the following year								
			2012	2013	2014	2015	2016	2017
Certified	Notore Hybrid	Sales Target		200 t	300 t	400 t	450 t	1 000 t
		Production	235 t	353 t	471 t	529 t	1 176 t	
		Area required	59 ha	88 ha	118 ha	132 ha	294 ha	
Basic	LineA/LineB (A/B Female)	Production	3.18 t	4.24 t	4.76 t	10.59 t		
		Area required	3.2 ha	4.2 ha	4.8 ha	10.6 ha		
	LineC (C Male)	Production	1.24 t	1.65 t	1.85 t	4.12 t		
		Area required	1.2 ha	1.6 ha	1.9 ha	4.1 ha		
Pre-basic	LineA (A Female - female)	Production	114 kg	128 kg	284 kg			
		Area required	0.095 ha	0.107 ha	0.237 ha			
	LineB (B Female - male)	Production	44 kg	50 kg	111 kg			
		Area required	0.037 ha	0.041 ha	0.092 ha			
	LineC (C Male)	Production	61 kg	69 kg	154 kg			
		Area required	0.061 ha	0.069 ha	0.154 ha			
Breeders	LineA (A Female - female)	Production	2.67 kg	5.93 kg				
		Area required	22 m2	49 m2				
	LineB (B Female - male)	Production	1.04 kg	2.30 kg				
		Area required	9 m2	19 m2				
	LineC (C Male)	Production	1.73 kg	3.84 kg				
		Area required	17 m2	38 m2				
			Certified	Basic	Pre-basic	Breeders		
		Reserve Factor	15%	50%	33%	0%		
		Seed Rates	kg/ha	kg/ha	kg/ha	kg/ha		
		Female	18	18				
		Male	7	7				
		Sole crop		25	25	25		
		Seed Yields	t/ha	t/ha	t/ha	t/ha		
		A			1.2	1.2		
		B			1.2	1.2		
		C		1.0	1.0	1.0		
		A/B		1.0				
		A/B//C	4.0					
TABLE 2: This table presents the potential seed production considering the stocks of Basic and Breeders' Seed Available								
			STOCKS	REQUIRED				
			2011	2011	2012	2013	2014	
Certified	Notore Hybrid	Sales Target			445 t	5 260 t	390 t	
		Pot. Prod'n.			523 t	6 188 t	458 t	
		Potential Area			131 ha	1 547 ha	115 ha	
Basic	LineA/LineB (A/B Female)	Pot. Prod'n.	3.53 t	2.35 t	41.77 t	5.01 t		
		Potential Area			42 ha	5 ha		
	LineC (C Male)	Pot. Prod'n.	3.00 t	0.92 t	30.08 t	1.20 t		
		Potential Area			30.1 ha	1.2 ha		
Pre-basic	LineA (A Female - female)	Pot. Prod'n.	1.000 t	0.501 t	0.120 t			
		Potential Area			0.10 ha			
	LineB (B Female - male)	Pot. Prod'n.	1.000 t	0.195 t	0.058 t			
		Potential Area			0.05 ha			
	LineC (C Male)	Pot. Prod'n.	1.000 t	0.271 t	0.040 t			
		Potential Area			0.04 ha			
Breeders	LineA (A Female - female)	Pot. Prod'n.	2.50 kg	0.77 kg				
		Pot. Prod'n.	1.20 kg	0.30 kg				
	LineB (B Female - male)	Pot. Prod'n.	1.00 kg	0.50 kg				
		Pot. Prod'n.						

TABLE DC.1: The minimum quantities and areas of breeders and basic seed required to produce the certified seed production goals of a double-cross hybrid in the following year								
			2012	2013	2014	2015	2016	2017
Certified	CZH1	Sales Target		200 t	400 t	1 000 t	5 000 t	10 000 t
		Production	222 t	444 t	1 111 t	5 556 t	11 111 t	
		Area required	74 ha	148 ha	370 ha	1 852 ha	3 704 ha	
Basic	CML444/CML395 (A/B Female)	Production	2.67 t	6.67 t	33.33 t	66.67 t		
		Area required	2.7 ha	6.7 ha	33.3 ha	66.7 ha		
	CML312/CML442 (C/D Male)	Production	1.04 t	2.59 t	12.96 t	25.93 t		
		Area required	1.0 ha	2.6 ha	13.0 ha	25.9 ha		
Pre-basic	CML444 (A Female - female)	Production	120 kg	600 kg	1 200 kg			
		Area required	0.120 ha	0.600 ha	1.200 ha			
	CML395 (B Female - male)	Production	47 kg	233 kg	467 kg			
		Area required	0.047 ha	0.233 ha	0.467 ha			
	CML312 (C Male - female)	Production	47 kg	233 kg	467 kg			
		Area required	0.047 ha	0.233 ha	0.467 ha			
	CML442 (D Male - male)	Production	18 kg	91 kg	181 kg			
		Area required	0.018 ha	0.091 ha	0.181 ha			
Breeders	CML444 (A Female - female)	Production	15.00 kg	30.00 kg				
		Area required	150 m2	300 m2				
	CML395 (B Female - male)	Production	5.83 kg	11.67 kg				
		Area required	58 m2	117 m2				
	CML312 (C Male - female)	Production	5.83 kg	11.67 kg				
		Area required	58 m2	117 m2				
	CML442 (D Male - male)	Production	2.27 kg	4.54 kg				
		Area required	23 m2	45 m2				
			Certified	Basic	Pre-basic	Breeders		
		Reserve Factor	10%	0%	0%	0%		
		Seed Rates	kg/ha	kg/ha	kg/ha	kg/ha		
		Female	18	18				
		Male	7	7				
		Sole crop			25	25		
		Seed Yields	t/ha	t/ha	t/ha	t/ha		
		A			1.0	1.0		
		B			1.0	1.0		
		C			1.0	1.0		
		D			1.0	1.0		
		A/B		1.0				
		C/D		1.0				
		A/B/C	3.0					
TABLE DC.2: This table presents the potential seed production considering the stocks of Basic and Breeders' Seed Available								
			STOCKS	REQUIRED				
			2012	2012	2013	2014	2015	
Certified	CZH1	Sales Target			8 418 t	8 418 t	8 905 t	
		Pot. Prod'n.			9 260 t	9 259 t	9 796 t	
		Potential Area			3 087 ha	3 086 ha	3 265 ha	
Basic	CML444/CML395 (A/B Female)	Pot. Prod'n.	55.56 t	55.56 t	55.56 t	68.57 t		
		Potential Area			56 ha	69 ha		
	CML312/CML442 (C/D Male)	Pot. Prod'n.	22.90 t	21.61 t	55.56 t	22.86 t		
		Potential Area			56 ha	23 ha		
Pre-basic	CML444 (A Female - female)	Pot. Prod'n.	1.000 t	1.000 t	2.000 t			
		Potential Area			2.00 ha			
	CML395 (B Female - male)	Pot. Prod'n.	1.000 t	0.389 t	0.480 t			
		Potential Area			0.48 ha			
	CML312 (C Male - female)	Pot. Prod'n.	1.000 t	0.389 t	0.480 t			
		Potential Area			0.48 ha			
	CML442 (D Male - male)	Pot. Prod'n.	1.000 t	0.151 t	0.160 t			
		Potential Area			0.16 ha			
Breeders	CML444 (A Female - female)	Pot. Prod'n.	50.00 kg	26.45 kg				
		Pot. Prod'n.	12.00 kg	10.29 kg				
	CML395 (B Female - male)	Pot. Prod'n.	12.00 kg	10.29 kg				
		Pot. Prod'n.	12.00 kg	10.29 kg				
	CML442 (D Male - male)	Pot. Prod'n.	4.00 kg	4.00 kg				
		Pot. Prod'n.						

ANNEX 6: LIST OF DOCUMENTS REVIEWED

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ANNEX 7: LIST OF INTERVIEWEES

NO	NAME	ORGANIZATION	POSITION	GENDER	COUNTRY	DATE
1	Emmanuel Asante-Krobea	MOFA/DCI	Director	M	Ghana	18-May-16
2	Azara A Mamshie	MOFA/WAPPP	Project Coordinator	F	Ghana	18-May-16
3	Solomon Gyan Ansah	WASP/Ghana	National Seed Specialist	M	Ghana	18-May-16
4	Rowland Addo	DCS/WASP	Agricultural Officer	M	Ghana	18-May-16
5	Aaron A Ampofo	MAS- GHANA	Managing Director	M	Ghana	18-May-16
6	Thomas W. Havor	NASTAG/SEEDPAG	General Secretary	M	Ghana	18-May-16
7	Emmanuel A Asamoah	CSIR-CRI	Research Scientist	M	Ghana	18-May-16
8	Joseph Owusu	CSIR-CRI	Chief Technician	M	Ghana	18-May-16
9	Eric Benstil Quaye	PPRSD-MOFA	Deputy Director	M	Ghana	18-May-16
10	Kwabena Adu-Gyamfi	NASTAG	Executive Council Member	M	Ghana	18-May-16
11	Sussie Sekor	APFOG	Focal Person	F	Ghana	18-May-16
12	Annan Samuel	APFOG	General Secretary	M	Ghana	18-May-16
13	Afia Owusu- Nyantakyi	GAIDA/ NASTAG	Member, Executive Council	F	Ghana	18-May-16
14	Kwaku Boateng	APFOG	Vice- President	M	Ghana	18-May-16
15	Haruna Alidu	CSIR-SARI	Maize Breeder	M	Ghana	19-May-16
16	Kenneth Opare- Obuobi	CSIR-SARI	Sorghum Breeder	M	Ghana	19-May-16
17	Wilson Dogbe	CSIR-SARI	Head of rice R&D	M	Ghana	19-May-16
18	M. S. Abdula	CSIR-SARI	Maize Breeder	M	Ghana	19-May-16
19	Zakaria Sumani Iddrisu	Heritage Seeds Co Ltd	Managing Director	M	Ghana	19-May-16
20	Musah B. Lukman	Antinka Company	Production Officer	M	Ghana	19-May-16
21	Osofo Apullah Patrick	Savanna Seed Services	Managing Director	M	Ghana	19-May-16
22	Joseph S. Bamle	Rural Innovation Consult	Executive Director	M	Ghana	19-May-16
23	Dr. S.K. Nutsugah	CSIR-SARI	Director	M	Ghana	19-May-16
24	Akdi Y. Christopher	MOFA/PPRS	Regional Seed Coordinator	M	Ghana	20-May-16
25	Mathias Fosu	ACDEP	Project Manager AGRA W/A Rice	M	Ghana	20-May-16
26	A. Tenkouano	CORAF/WECARD	Executive Director	M	Senegal	23-May-16

NO	NAME	ORGANIZATION	POSITION	GENDER	COUNTRY	DATE
27	Ernest Asiedu	CORAF/WECARD (WASP)	Chief of Party	M	Senegal	23-May-16
28	Paul Senghor	CORAF/WECARD (WASP)	Seed Policy Expert	M	Senegal	23-May-16
29	Kodjo Kondo	CORAF/WECARD (WASP)	M&E Specialist	M	Senegal	23-May-16
30	Adama Keita	CORAF/WECARD (WASP)	National Seed Specialist	M	Senegal	23-May-16
31	Sheikh Rogers	CORAF/WECARD	M&E Specialist	M	Senegal	23-May-16
32	Yamar Mbodj	Hub Rural	Executive Director	M	Senegal	24-May-16
33	Sagne Mamadou	DISEM/DA	Head of Seed Division	M	Senegal	24-May-16
34	Henriette Tine	AFSTA	Coordinator (West Africa)	F	Senegal	24-May-16
35	Amadou Sarr	AFSTA	President (West Africa)	M	Senegal	24-May-16
36	Amadou Djigo	AFSTA/UNIS	Member	M	Senegal	24-May-16
37	Modou Thiam	UNIS	President	M	Senegal	24-May-16
38	Abdou Ndiaye	UNIS	Executive Secretary	M	Senegal	24-May-16
39	Ibrahima Niane	UNIS	Member	M	Senegal	24-May-16
40	Elhadju Combeabu	UNIS	Member	M	Senegal	24-May-16
41	Marietou Diawara	WAAPP	Coordinator	F	Senegal	24-May-16
42	Dogo Seck	MAER	Secretary General	M	Senegal	24-May-16
43	Jean Pierre Bassene	UCTF/WAAPP		M	Senegal	24-May-16
44	Amadou Ndiaye	UCTF/WAAPP		M	Senegal	24-May-16
45	Mamadou Diallo	UCTF/WAAPP		M	Senegal	24-May-16
46	Baboy Fade Ly	DRDR/SL	Director	M	Senegal	25-May-16
47	Cisse Peinda Gueye	FEPRODES	President	F	Senegal	25-May-16
48	Dieynaba Sow Cisse	FEPRODES	Secretary	F	Senegal	25-May-16
49	Ramatou Gaye Ba	FEPRODES	Member	F	Senegal	25-May-16
50	Soukeyna Konare	FEPRODES	Member	F	Senegal	25-May-16
51	Saliou Mbodj	Agriwalo	President	M	Senegal	25-May-16
52	Soukeymane Gueye	Agriwalo	Member	M	Senegal	25-May-16
53	Adama Mbodj	Agriwalo	Member	M	Senegal	25-May-16
54	Convia Gaye	Agriwalo	Member	F	Senegal	25-May-16
55	Adama Diagne	GIE Darou Diagne	President	M	Senegal	25-May-16
56	Seugne Saer Niang	GIE Name Dumar Hiog	President	M	Senegal	25-May-16
57	Eltadji Mamadou Diop	CTS	President	M	Senegal	25-May-16

NO	NAME	ORGANIZATION	POSITION	GENDER	COUNTRY	DATE
58	Ousmane Ka	FPA	Coordinator	M	Senegal	25-May-16
59	Djaman Koffi	Africa Rice Center	Agronomist	M	Senegal	25-May-16
60	Raafat EL-Namaky	Africa Rice Center	Breeder	M	Senegal	25-May-16
61	Manneh Baboucar	Africa Rice Center	Breeder	M	Senegal	25-May-16
62	Mutsa Masiyandima	Africa Rice Center	Water Management Specialist	F	Senegal	25-May-16
63	Karim Traore	Africa Rice Center	Grain Quality and Seed Systems	M	Senegal	25-May-16
64	Abdoulaye Ba	GIE de Technicien au Controle des Semence	Technician	M	Senegal	25-May-16
65	Madou Ba	GIE Diansouda	President	M	Senegal	25-May-16
66	Bocar Sagua		Analyst	M	Senegal	25-May-16
67	Malick Folole		Analyst	M	Senegal	25-May-16
68	Mamdou Lo	ISRA	Seed Expert	M	Senegal	25-May-16
69	Mbaye Diop	ISRA/CNRA	Director	M	Senegal	25-May-16
70	Papa Ndao	ISRA	Seed Production Expert	M	Senegal	25-May-16
71	Issa Faye	ISRA	Researcher, Head (Seed Unit)	M	Senegal	25-May-16
72	Moussa Diangar	ISRA/CNRA	Breeder	M	Senegal	25-May-16
73	Ousmane Sy	ISRA/CNRA	Millet Breeder	M	Senegal	25-May-16
74	Cheikh Ndione	ISRA	Researcher	M	Senegal	25-May-16
75	Name Penda S. Diawara	ISRA/CNRA	Plant Pathologist	F	Senegal	25-May-16
76	Amadou Fofana	ISRA/CNRA		H	Senegal	25-May-16
77	El Hadji Fall	UNIS/GIE Touba Mouride	President	M	Senegal	25-May-16
78	Saliou Seye	RESOPP	Training Manager	M	Senegal	26-May-16
79	Ablaye Ndour	RESOPP	Agricultural Manager	M	Senegal	26-May-16
80	Sokona Dagnoko	CNRA-WASP	Coordinator/National Seed Specialist	F	Mali	30-May-16
81	Cisse Oumou Traore	CNRA	Deputy Excutive Secretary	F	Mali	30-May-16
82	Tahirou Tangara	CNRA		M	Mali	30-May-16
83	Yaya Traore	CNRA	Deputy WAAP Coordinator	M	Mali	30-May-16
84	Siaka Dembele	INSAH/CILSS	Seed Policy Specialist	M	Mali	30-May-16
85	Oumar Tamboura	DRA, Koulikoro	Regional Director	M	Mali	30-May-16
86	Moussou Keita	Societe Coumara Semences SARL	Member	F	Mali	30-May-16

NO	NAME	ORGANIZATION	POSITION	GENDER	COUNTRY	DATE
87	Cheick Hamallah Camara	Societe Camara Semences SARL	Coordinator	M	Mali	30-May-16
88	Sidi Bolly	Societe Camara Semences SARL	Marketing and Sales Officer	M	Mali	30-May-16
89	Aboubacar Toure	ICRISAT	Researcher	M	Mali	30-May-16
90	Mamadou Kayentao	ASSEMA/AGRIPLUS	President	M	Mali	30-May-16
91	Paya Dolo	ASSEMA	Permanent Secretary	M	Mali	30-May-16
92	Balla Togola	USCPMD Beleko	Member	M	Mali	30-May-16
93	Dramane	USCPMD Beleko	Director	M	Mali	30-May-16
94	Traore M. Dembele	Comptoir 2000 - SA	Director General	M	Mali	30-May-16
95	TraoreBrehima	EUCORD	Marketing Specialist	M	Mali	30-May-16
96	Dioukamodj Diallo	LABOSEM	Director	M	Mali	30-May-16
97	Brahima Dembele	URG/IER	Researcher	M	Mali	30-May-16
98	Mody Sidibe	DNA	Head, Quality Control Division	M	Mali	30-May-16
99	Nouhoum Tamboura	DNA	Program Coordinator	M	Mali	30-May-16
100	Nouga Soumaila	NAKOSHI	Director General	M	Mali	30-May-16
101	Diallo Khadidia Ba	CNRA/WAAPP	Executive member	F	Mali	30-May-16
102	Coulibaly Keita	CNRA/WAAPP	Gender Specialist	F	Mali	30-May-16
103	Maimuna Sidibe Coulibaly	Faso Kaba SARL	Director	F	Mali	30-May-16
104	Dolo Bintou Foume Diame	Faso Kaba SARL	Production Manager	F	Mali	30-May-16
105	Siaka Fofana	Ministry of Agriculture	Technical Advisor	M	Mali	30-May-16
106	Soumadro Hamart	INSAH/CILSS	Head, UAFC	M	Mali	31-May-16
107	Coulibaly Aguibou	INSAH/CILSS	Head, UCID	M	Mali	31-May-16
108	Francis Nwilene	Africa Rice Center	Regional Representative	M	Nigeria	3-Jun-16
109	Mande Senon	Africa Rice Center	Rice Breeder	M	Nigeria	3-Jun-16
110	Robert Asiedu	IITA	Regional Director (West Africa)	M	Nigeria	3-Jun-16
111	Ebenezer Aje	WASP/Nigeria	National Seed Specialist	M	Nigeria	3-Jun-16
112	Benjamin Annor	IITA	Research Fellow	M	Nigeria	3-Jun-16
113	Talabi Abidemi	IITA	Research Associate	M	Nigeria	3-Jun-16
114	Baffour Badu-Apraku	IITA	Maize Breeder	M	Nigeria	3-Jun-16
115	Dr. A. A. Adegbite	IAR&T	Deputy Director	M	Nigeria	3-Jun-16
116	Prof. L. B. Taiwo	IAR&T	Head, Crop Production Unit	M	Nigeria	3-Jun-16
117	Dr. J. O. Olasoji	IAR&T	WASP Focal Person	M	Nigeria	3-Jun-16

NO	NAME	ORGANIZATION	POSITION	GENDER	COUNTRY	DATE
			(IART)			
118	Prof. J. A. Adeduran	IAR&T	Executive Director	M	Nigeria	3-Jun-16
119	T. A. Sule	IAR&T	PAR	M	Nigeria	3-Jun-16
120	Dr. Philip Obasanjo Ojo	National Agricultural Seed Council	Director General	M	Nigeria	2-Jun-16
121	Olusengu Osundiya	National Agricultural Seed Council	Agricultural Officer	M	Nigeria	2-Jun-16
122	Folarin Oladapo	National Agricultural Seed Council	Agricultural Officer	M	Nigeria	2-Jun-16
123	Kehinde Adelugba	National Agricultural Seed Council	Director	M	Nigeria	2-Jun-16
124	Olaniyan Olalekan R	National Agricultural Seed Council	Seed Certification and Quality Control Officer	M	Nigeria	2-Jun-16
125	Dr Abimiku Sunday Eslaf	National Agricultural Seed Council	Director	M	Nigeria	2-Jun-16
126	Bulus Sule	National Agricultural Seed Council	Director SC & QC	M	Nigeria	2-Jun-16
127	Okelola Folarin	National Agricultural Seed Council	ACAO	M	Nigeria	2-Jun-16
128	Joseph Oyewole Omole	National Agricultural Seed Council	Director Seed Industry Development	M	Nigeria	2-Jun-16
129	Agboola A. A.	National Agricultural Seed Council	DD (QC)	M	Nigeria	2-Jun-16
130	Unaowo Bassey	National Agricultural Seed Council	DD (SIDTS CS)	M	Nigeria	2-Jun-16
131	Towolani Oluwole Lateef	National Agricultural Seed Council	DD (SIDM)	M	Nigeria	2-Jun-16
132	Prof. Abraham Ogungbile	Premier Seed Nigeria Ltd	MD	M	Nigeria	3-Jun-16
133	Olafare Richard	SEEDAN & Savannah Seeds Ltd	President & MD	M	Nigeria	3-Jun-16
134	Stephen D. Yakubu-Atar	Da-Allgreen Seeds Ltd & Member SEEDAN	MD/CEO Da-Allgreen Seeds Ltd	M	Nigeria	3-Jun-16
135	Amb. Jaiyeola J. Lewu	Evergreen International Ltd & Member of SEEDAN	Chairman Evergreen International	M	Nigeria	3-Jun-16
136	Hon. Abdulazeez Tonku	Rice Farmers Association of Nigeria (RIFAN)	Vice-President, North-East Zone	M	Nigeria	3-Jun-16
137	Engr. Bamidele Joseph. Sunday	Maize Association of Nigeria (MAAN)	National Secretary HQ, Ibadan	M	Nigeria	3-Jun-16
138	Bakare Samuel	National Cereal	Assistant Director	M	Nigeria	3-Jun-16

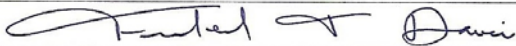
NO	NAME	ORGANIZATION	POSITION	GENDER	COUNTRY	DATE
		Research Institute				
139	Mohammed Omar Gadzama	National Cereal Research Institute	CTO Seed Program	M	Nigeria	3-Jun-16
140	Dr. Shehu Mahmud Usman Ahmed	Federal Minsitry of Agriculture and Rural Development	Permanent Secretary	M	Nigeria	2-Jun-16
141	Francis Konu	African Development Bank	Former WASP M&E Specialist	M	Abidjan	2-Jun-16
142	Alain Sy Traore	ECOWAS	Director, Agricultural and Rural Development	M	Abidjan	2-Jun-16
143	Djimasbe Ngaradoum	West Africa Fertilizer Program	Monitoring and Evaluation Specialist	M	Ghana	8-Jun-16
144	Dr Kouame Miezán	AfricaSeed	Executive Director	M	Abidjan	22-Jun-16
145	Dr. Robin Wheeler	WAFP – West Africa Fertilizer Program	Chief of Party	M	Accra	23-Jun-16

ANNEX 8: DISCLOSURE OF CONFLICT OF INTEREST EVALUATION TEAM MEMBERS

Disclosure of Conflict of Interest for USAID Evaluation Team Members

Name	Frederick T. Davies
Title	Regents Professor, Senior Borlaug Fellow in Horticulture, TAMU
Organization	ASSESS PROJECT
Evaluation Position?	☐ Team Leader ☒ Team member
Evaluation Award Number (contract or other instrument)	Cooperative Agreement No.: AID-624-A-12-00007;
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Project Title: The West Africa Seed Program; CORAF/WECARD, Non-US NGO; 2. Program: The Feed the Future Initiative
I have real or potential conflicts of interest to disclose.	Yes ☒ No ☐
If yes answered above, I disclose the following facts: Real or potential conflicts of interest may include, but are not limited to: 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	
Date	19 June 2016

Disclosure of Conflict of Interest for USAID Evaluation Team Members

Name	Musa S. Mbenga
Title	Consultant
Organization	ASSESS PROJECT
Evaluation Position?	☐ Team Leader ☒ Team member
Evaluation Award Number (contract or other instrument)	
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	West Africa Seed Programme CORAF/WE CARD CA #: AID-624-A-12-00007
I have real or potential conflicts of interest to disclose.	Yes ☐ No ☒
If yes answered above, I disclose the following facts: Real or potential conflicts of interest may include, but are not limited to: 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

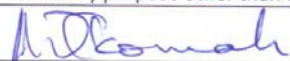
I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	
Date	20/6/2016

Disclosure of Conflict of Interest for USAID Evaluation Team Members

Name	PROF. RICHARD AKROMAH
Title	SEED EXPECT
Organization	ASSESS PROJECT
Evaluation Position?	☐ Team Leader ☒ Team member
Evaluation Award Number (contract or other instrument)	624-14-P-000004
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	WEST AFRICA SEED PROGRAM (MIDTERM EVALUATION)
I have real or potential conflicts of interest to disclose.	Yes ☐ No ☒
If yes answered above, I disclose the following facts: Real or potential conflicts of interest may include, but are not limited to: 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

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Signature	
Date	31. August, 2016.

Disclosure of Conflict of Interest for USAID Evaluation Team Members

Name	Cheikh Tidiane SARR
Title	Consultant, Institutional Aspects
Organization	ASSESS PROJECT
Evaluation Position?	☐ ~~Team Leader~~ ☐ Team member
Evaluation Award Number (contract or other instrument)	
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	USAID/WA West ASP Midterm Evaluation, ASSESS/KNUST
I have real or potential conflicts of interest to disclose.	~~Yes~~ ☒ No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

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Signature	
Date	June 19 th , 2016

Disclosure of Conflict of Interest for USAID Evaluation Team Members

Name	NDIAYE SOUNKA
Title	Evaluation Specialist
Organization	ASSESS PROJECT
Evaluation Position?	☒ Team Leader ☐ Team member
Evaluation Award Number (contractor other instrument)	
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	West Africa Seed Program (WASP) implemented by CORAF/WE CARD, recipient of the Cooperative Agreement #AID-624-A-12-00007
I have real or potential conflicts of interest to disclose.	Yes ☐ No ☒
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

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Signature	
Date	June 20, 2016