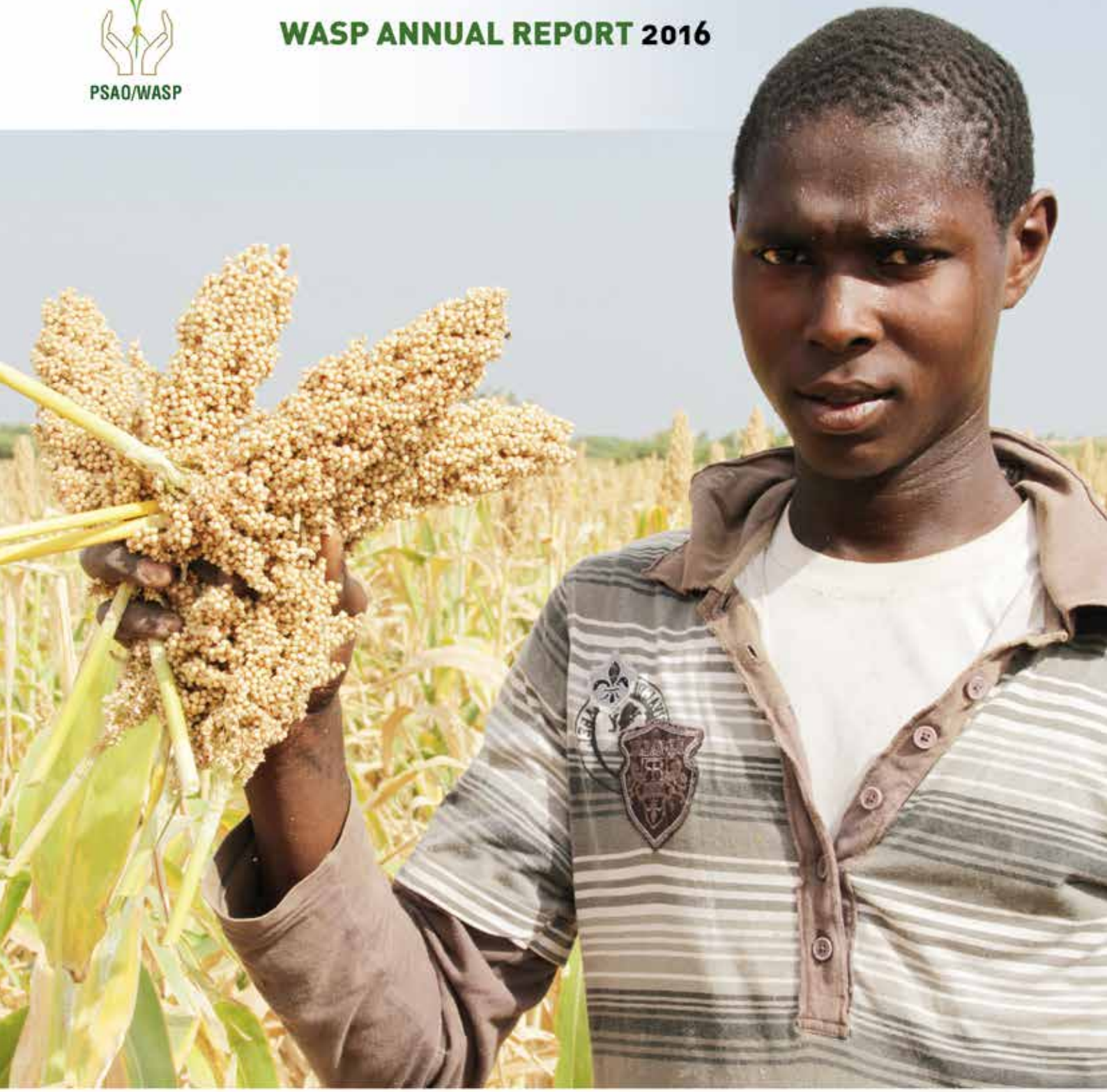
PSAO/WASP

WASP ANNUAL REPORT 2016



CORAF

TRANSFORMING
THE SEED INDUSTRY

2016 Annual Report

Implementation of Regional Harmonized Regulation

C/REG.4/05/2008

Submitted to USAID/WA

By CORAF/WECARD

TABLE OF CONTENT

ACRONYMS

AGRA	Alliance for Green Revolution in Africa
AFSTA	African Seed Trade Association
AfricaRice	Africa Rice Centre
ARIPO	African Regional Intellectual Property Organization
ASIWA	Alliance for Seed Industry in West Africa
AVRDC	World Vegetable Center
BMT	Business Management Training
CAADP	Comprehensive African Agricultural Development Program
CILSS	Comité permanent Inter-Etats de Lutte contre la Sécheresse
CORAF/WECARD	West and Central Africa Council for Agricultural Research and Development
CORAF	Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles
ECOWAS	Economic Community of West African States
ECOWAP	ECOWAS Agricultural Policy
FAAP	Framework for African Agricultural Productivity
FARA	Forum for Agricultural Research in Africa
FAO	Food and Agricultural Organization
FtF	Feed the Future
GIS	Geographic Information Systems
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IITA	International Institute of Tropical Agriculture
INERA	Institut de l'Environnement et de Recherches Agricoles
INRAN	Institut National de Recherche Agronomique du Niger
INSAH	Institut du Sahel
IPR	Intellectual Property Rights
ISRA	Institut Sénégalais de Recherches Agricoles
ISO	International Organization for Standardization
ISU	Iowa State University
LoP	Life of Project
MCA	Millennium Challenge Account
MARKETS	Maximizing Agricultural Revenue and Key Enterprises in Targeted
MoU	Memorandum of Understanding
M&E	Monitoring and evaluation
NARIs	National Agricultural Research Institutes
NARS	National agricultural research systems
NGOs	Non-Governmental Organizations
NSC	National Seed Committees
NSS	National Seed Service
NSTAs	National Seed Trade Associations
NVRC	National Variety Release Committee
OECD	Organization for Economic Cooperation and Development
OAPI	Organisation Africaine de la Propriété Intellectuelle
PERSUAP	Pesticide Evaluation Report and Safe Use Action Plan
PMP	Performance management plan
ROPPA	Réseau des Organisations Paysannes et de Producteurs de l'Afrique de l'Ouest
UEMOA	Union Économique et Monétaire Ouest Africaine
USAID	United States Agency for International Development
WECARD	West and Central Africa Council for Agricultural Research and Development
WAAPP	West Africa Agricultural Productivity Program
WAFP	West Africa Fertilizer Program
WASA	West Africa Seed Alliance
WASP	West Africa Seed Program

EXECUTIVE SUMMARY

The Fiscal Year 2016 marked progress towards the entry into the final year of implementation of WASP. The regional and national offices continued to be strengthened to effectively manage and coordinate the program for result delivery. However, the M&E Specialist and the Seed Agri-Business and Marketing Specialists resigned and it became necessary to launch a recruitment for replacements. These resignations affected the smooth running to the program; nevertheless, the Team worked to offset the shortfalls. The remaining regional staff members and the seven National Seed Specialist for the seven target countries remained at post. The Regional and National staff participated in partner consultative meetings, including those organized by the USAID, ECOWAS, WAAPP, AfricaRice, IITA, BMG Foundation, Monsanto, ISSD, National Meetings and missions etc. which helped leverage additional partnership and enhanced the visibility of the WASP. Significant effort was devoted to the implementation of three projects namely the Rice Up-Scaling Project, the Ebola Initiative and ROPPA-PAPROSEM. This resulted in CORAF/WECARD receiving additional US$ 3 Million from USAID, US$ 2 Million from WAAPP and US$ 3 Million from the World Bank. The WASP result framework was updated to include a Sub- Intermediate Results on (i) production of rice foundation seed increased, (ii) Production of rice certified seed increased and (iii) Rice Seed Up-scale Program managed.

Within the context of implementation, the Alliance for Seed Industry in West Africa (ASIWA) was advanced with relevant documents finalized and shared with the Alliance members. Following the launching in August, 2015, vigorous effort was made in 2016 to organize national inception meetings. Further to this, the West Africa Seed Exchange Electronic Platform www.wasix.net was updated to serve its role as a communication, knowledge management, community of practice and a business development hub. Training of the private sector in the management and use of the WASIX stimulated its use in Burkina Faso, Cote d'Ivoire, Mali, Niger, Nigeria, Senegal, etc. An international electronic seed forum organized within the year, brought together 350 participants from 47 countries worldwide to find solutions to challenges facing the growth in the seed sector in West Africa.

The implementation of the regional seed regulation showed an from the 41% level in 2013 increase to 84% in 2016. The Second Statutory Meeting of the West Africa Seed Committee (WASC/COASem-CRSU) held in Bamako with 16 out of the 17 Member States helped improved implementation of the regulation in a more harmonized manner. The increased number of countries to 13 of countries publishing the regulation in their official national gazettes resulted in the regulation coming to force in these countries. The 17 Member States contributed to the development of the Regional (West Africa) Variety Catalogue where 1,496 crop varieties were registered to facilitate private sector and farmer access to a wide range of new and more productive genetic materials; the capacity of 124 ICT Specialists and Plant Breeders strengthened in the management of the variety catalogue software will facilitate regular updates of the catalogue. Additionally, the training of 1,396 individuals in the management of www.wasix.net, seed regulation, breeder seed production and seed agri-business management (34% women) further enhanced the production and marketing of quality seeds across the region. WASP trained 49 key individuals (27% women) mainly from the Private Sector associations and other organisations in M&E principles, result based management and en-

EXECUTIVE SUMMARY

vironmental safeguard to effectively under the Rice Seed Up-Scale project. With the support of WASP, five seed companies in Burkina Faso acquired credit facility worth US$ 4 Million to expand their businesses.

In upscaling the WASP capital, a greater focus was put on certified seed production, with spill-over benefits to other countries, using surpluses of breeder and foundation seeds produced in the FY 2015. A total of 1,396 individuals (34% being women) received USG supported short-term trainings in seed policy, breeder seed production and agri-business. In addition, 158 for-profit private enterprises, producer organisations, women's groups, and trade and business associations received USG food security related organizational development assistance representing 184% achievement. A major shortfall occurred in the number of MSMEs receiving agricultural related credit where 41% achievement rate was realized. In comparison with the WASP target of 2,419 ha of area under improved technology, at total of 8,042 ha was established for the production of breeder and foundation seeds, representing 332% achievement. Moreover, extra 35,362 ha was established for the up-scale of certified seeds, particularly rice. In total, 30,173 tons of seeds (Breeder, foundation and certified seeds) of maize, sorghum/millet, rice, cowpea and groundnuts were produced and made available in FY 2016, representing 116% achievement of FY 2016 targets. Certified seeds produced under WASP direct support was estimated to plant 1.2 Million ha under farmers' production. Overall, a total of 268,454 tons of certified seeds were produced and marketed in the region during 2016. The achievements made during the FY 2016 showed good progress toward the realization of the targets set for the 5-year project lifespan from 12% potential need satisfied in 2012 to 25% in 2017.

With regard to financial management, improvement was made with partners understanding the fund management principles; nevertheless, challenges still exit in the slow pace of funds justification. A total amount of US$ 3 375 395 was received from USAID WA Mission.

1. INTRODUCTION

1.1. Background and Context

The two Malabo declaration of NEPAD-CAADP therefore took these challenges into consideration as follows: (1) Commitment to accelerate Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods and (2) Declaration on Nutrition Security for Inclusive Economic Growth and Sustainable Development in Africa.

The first Malabo Declaration seeks among seven others to (i) commit to end hunger, including nutrition by 2025; (ii) commit to half poverty by 2025; (iii) commit to boosting African Trade in agricultural commodities and services, (iv) commitment to enhancing resilience in livelihoods and production systems to climate variability and other shocks. The second Declaration commits itself among other issues to bring child stunting to 10% and under-weight to 5%. CORAF/WECARD recognizes the adjustments to the CAADP approaches in increasing the CAADP momentum within the next 10 years (2014-2023) after 10 years of implementation (2004-2013); CORAF/WECARD's new operational plan 2014-2018 therefore responds to the CAADP+10 and ECOWAP+10 objectives with challenges relating to climate change, food, nutrition and health adequately addressed. The CORAF/WECARD vision statement is, a sustainable reduction in poverty and food insecurity in WCA through an increase in agricultural-led economic growth and sustainable improvement of key aspects of the agricultural research system. The USAID FtF Initiative aligns with the ECOWAS, the UEMOA, CILSS and CORAF/WECARD to ensure sustainable food security and nutritional & sustainable management of natural resources within Member states, a descent income to agri-household, expansion of agri-trade on sustainable bases. At the on-set of the WASP in 2012, the major constraints faced by farmers were low access to improved seeds, inadequate production management practices and machinery, limited access to fertilizer and the adverse effects of climate change. Poor storage systems, limited use of improved germplasm, poor soil fertility, and limited access to irrigation facilities were additional constraints. Low access to credit, input and the output markets, weak producer capacity, weak technology transfer system, and weak capacities of producer associations were constraining. Consequently crop yields had been low, averaging 25% of the potential. Since quality seed is a key factor to yield increase, the WASP was designed to facilitate farmer access to quality seeds of new crop genetic climate-smart materials resilient to the stresses including those stemming from Climate Change.

Thus, in the course of the 2016 Fiscal Year, the WASP will continue to build upon the gains made in 2015/16, where certified seed supply in the region reached 267,000 tons over the 2011/ 2012 production of 40,000 tons.

1.2. Institutional Support

- The first three quarters of the Fiscal Year 2016 marked a significant milestone in the life of the WASP by the entry into its fourth year of implementation. The FY 2015 Annual Report was finalized and submitted to the USAID West Africa Mission; the FY 2016 Work Plan was finalized and submitted to the USAID West Africa Mission. The period was used to develop a project proposal, "Rice Seed Up-Scale" and submitted to the USAID West Africa Mission in response to a Request for Application, which was accepted and is currently being implemented.
- With respect to the regional personnel, the regional positions for Chief of Party, Seed Agri-Business, Seed Production and Seed Policy and Advocacy Specialists as well as Financial and Grants Officer were maintained. The Bilingual Assistant, Mrs. Cecile Sarr and the M&E Specialist, Mr. Francis Konu resigned from CORAF/WECARD. A new Monitoring and Evaluation Specialist, Dr. Kodjo Kondo was recruited and took his position in May, 2016; Additionally, a Rice Seed Up-Scaling Specialist was recruited to coordinate the Rice Up-Scale Project. A temporal arrangement was made to engage a Bilingual Secretary to support the Regional Office and processes are on course to engage an Information and Communication Specialist. At the national level, seven National Seed Specialists were maintained (Benin, Burkina Faso, Ghana, Mali, Niger, Nigeria and Senegal).
- An External Mid Term Assessment was carried out between May and June, 2016 by a team of consultants, facilitated by the USAID-ASSESS Program; the final report of the evaluation is yet to be received but indications are that the assessment was positive and brought out successful models for up-scaling in a possible follow-up phase.
- Between March and June, three visits were made by the USAID/WA Mission to the CORAF/WECARD Secretariat to (ii) work on financial management challenges and find solutions to them, (i) introduce the new Director of the Economic Growth Office, Dr. Mary Hobbs and (ii) discuss the WASP implementation and M&E issues with CORAF/WECARD management and the WASP Team.
- The CORAF/WECARD Management and the WASP Chief of Party Participated in the ECOWAS Process in the development of the Regional and National Agricultural Investment Plans; CORAF/WECARD among other organization will support the process at the regional and national levels. This also provided an opportunity for CORAF/WECARD to advocate for the leverage of funds. This took place in Abidjan from 30th May to 3rd June, 2016.
- Three projects, (i) Rice Seed Up-Scale, (ii) Ebola Initiative and (iii) ROPPA-PAPROSEM were implemented with additional US$ 8 Million leveraged from the USAID/WA, World Bank and WAAPP.
- The institutional support strengthened CORAF/WECARD-WASP to implement actions planned in the FY 2016 Workplan.

1.3. Key Focus Areas under WASP

The overall goal of the WASP is to contribute to the sustainable improvement of agricultural productivity. Its immediate objective is to expand the production and supply of quality certified seeds of improved plant varieties, both OPVs and hybrids, from 12 to 25% over the five years of the Program. The Program seeks to achieve this objective through its Results Framework (Figure 1.1) which hinges on the following four Results:

(i) Alliance for Seed Industry for WA effectively coordinated and sustained,
(ii) ECOWAS-UEMOA-CILSS Seed Regulation implemented,
(iii) Production and supply of breeder seeds of new and climate-smart crop varieties increased,
(iv) Production and marketing of foundation and certified seeds of new and climate-smart crop varieties increased

1.4. Report Structure

Details on these four result areas are elaborated in section 2. In addition, the report provides highlight on gender and youth mainstreaming (section 3); program performance and the progress toward the achievement of WASP high level objective under monitoring and evaluation (section 4); strategic partnerships (section 5); financial reporting (section 6) and the environmental safeguard compliance (section 7).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2. HIGHLIGHTS OF FY 2016 ACHIEVEMENTS

Activities of the WASP were geared towards achievement of its four intermediate results and Specific Objective. This report is therefore, organized into these four Intermediate Results (IRs) to show the extent of progress made under each result in FY 2016.

2.1. RESULT 1: Operational & Inclusive ASIWA

During the First Three Quarters of FY 2016, the WASP Team took some time to analyze the outcomes from the launching of the ASIWA, which took place in Abidjan during the last quarter of 2015. Participant impressions and participant evaluation outcomes, a communiqué issued as well as the reports emerging from the event were developed and shared with participants. Following the international workshop to converge Stakeholders for the official establishment and operationalization of the Alliance, 25 stakeholder commitment forms were submitted by national, regional and international organizations. Physical documents on seed regulation, WASP Achievements, successes and challenges in the implementation of the ECOWAS-UEMOA-CILSS Seed Regulation were developed for distribution to stakeholders. An electronic platform, www.wasix.net, established within the framework of the alliance was animated with information on quantities of quality foundation and certified seeds from the private sector; seed regulatory documents, best practices in seed production, national variety catalogues and other relevant information were put on the e-platform. Daily visits by partners and stakeholders all over the world were recorded.

Group Photo of Participants at the Second Ordinary Regional Seed Committee Meeting, Bamako, Mali

2.1.1. Highlights of ASIWA Activities at the National Level

In the first three quarters of the fiscal year, ASIWA National consultative meetings were carried out in strengthening the National Affiliates, many of which resulted in the establishment of national steering committees. Examples include Benin, Burkina Faso, Cote d'Ivoire, Ghana, Mali, Niger and Nigeria.

Nigeria: From 6th to 7th June 2016, a meeting among seed sector stakeholders was held within the context of the ASIWA to bring clarity to the implementation of the harmonized seed regulation with emphases on seed production, processing and storage, certification and import-export procedures in meeting seed quality standards for marketing in-country and in the region. The establishment of functional National Seed Committee and National Seed Funds were key topics at the heart of deliberations. Group work helped deepen discussion on contracting among stakeholders, weakness in communication in the seed sector, weak participation of stakeholders in the alliance, low capacity of seed enterprises in the use of ICT and generally low level of training.

Regarding low access to credit, the Banks including the ECOBANK that were invited provided orientation as to the procedures that the SMEs can follow to acquire credit. AGRA, FAO and WAAPP also demonstrated its mode of providing grants and subsidies.

Benin: In Cotonou, Benin, the ASIWA action plan was adopted in April 2014 followed by the establishment of an ad'hoc National Steering Committee comprising of a mix of 10 organizations in February 2015 at a congress attended by 25 participants, 15 of them being female. The Committee had a meeting on 4th and 5th April, 2016. Following this meeting, the ASIWA Benin Chapter was launched on the 22nd of April 2016 at a ceremony attended by 72 participants including 15 women. Within the context of the Alliance, two separate workshops were organized to train 15 focal persons in the use and data management for wasix.net and develop the manual for variety registration and release by a team of 15 (two being women) representing various national stakeholders.

In April, 2016, Nigeria organized the National Yearly Seed Planning and ASIWA sensitization meeting which drew over 356 participants to deliberate on issues relating to 2016 requirements of each class of seed (breeder, foundation and certified seeds). The ASIWA provided a platform for stakeholders to discuss to find solutions to curb adulteration and weed out unscrupulous seed dealers in the cleaning the seed system. Also high on the agenda was taking measures to correctly implement the ECOWAS-UEMOA-CILSS harmonized seed regulation, as well as increased access to credit among other issues.

The ASIWA concept was well accepted as the best way to find lasting solutions to numerous challenges in the seed system to ensure growth in the sector for increased supply of quality seed to farmers. The Minister of Agriculture participated outlined his plans to improve the supply of quality agri-inputs to farmers. The meeting drew a large number of press houses who diffused proceedings widely in the country. It is worth to note that various organs have been established for the governance of ASIWA-Nigeria affiliate to ensure smooth functioning and sustainability.

Table 2.1.1: Summary of Activities of ASIWA National Affiliates (October 2015 - June 2016)

Country	Issues / challenges discussed	Outputs
Benin	• Advocacy and training	• Stakeholder buy in obtained for the ASIWA concept • Awareness created on the benefits of WASIX • Focal points introduced to administration and data management of WASIX platform • 72 participants (15 women) at launching and 15 trained
Niger	• Seed market issues in Niger • Public purchase Vs seed Private market • WASIX implementation and information on seed availability	• Discussion with the government on the engagement of the private sector in the purchase of seed and input subsidy management • Editing of the National Seed Directory which contains names and contacts of seed sector personnel
Ghana 4-5 February	• Presentation of achievements for WASP-Ghana 2015 and the plan for 2016 to seed sector stakeholders for their support and comments • Discussion on the documents on regional technical seed regulations.	• Presentation and Discussions / amendments on Draft Decrees for ECOWAS seed regulation implementation: (1) Draft Decree on the Establishment, the Responsibilities and Functions of the National Seed Council and of the Plants and Fertilizer Fund, (2) Draft Protocol/ Technical Regulations on the Establishment of an Official Catalogue of Plant Species and Varieties and (3) Draft Decree Promulgating Specific Technical Rules for Plant Seed Production, Quality Control and Certification.

Country	Issues / challenges discussed	Outputs
Ghana 4-5 February		• In Ghana, the National Seed Specialist met some members of National Seed Trade Association of Ghana (NASTAG) and concluded on the way forward regarding ASIWA. It was agreed that the following activities will be rolled out in 2016: (i) Finalize a draft communication strategy for ASIWA, (ii) Finalize a draft constitution for ASIWA, (iii) and (iii) Launching of ASIWA.
Nigeria, 18 March 2016	• ASIWA National Steering committee composition and membership, • production planning	• Identification of stakeholders involved in the national steering committee • Activities of the Working Groups identified • Awareness creation and communication plan developed
April, 2016	• National Annual Seed Need Planning and ASIWA Sensitization Workshop	• The yearly requirement of seeds in Nigeria from the 5-year roadmap developed was revisited for necessary adjustments for the year 2016 • The ASIWA was presented to over 356 participants from the seed value chain and banks • 30 persons trained
Burkina Faso, April, 2016	• Studies, WASIX and advocacy	• Study on Early Generation Seeds • Launching www.wasix.net and training on its use. Wide publicity was provided by the print and the electronic media • Advocacy from the private sector resulted in a PPP to engage the private sector in foundation seed production; Steering Committee of ASIWA-BF was renewed.

Country	Issues / challenges discussed	Outputs
June, 2016	• ASIWA Meeting	• The ASIWA meeting held in June improved seed system coordination in Burkina Faso, understanding of the seed regulation; solutions to access to credit were proposed by the banks and development programs.
Cote d'Ivoire, May, 2016	• Launching and training on WASIX	• Launching www.wasix.net and training of 25 private sector SME on its use. Wide publicity was provided by the print and the electronic media.
Senegal. March, 2016	• Launching and training on WASIX	• Launching of ASIWA &www. wasix.net and training on its use. Wide publicity was provided by the print and the electronic media
Mali. October, 2015	• ASIWA – Year seed needs planning	• Planning for yearly seed production
March-April, 2016	• Seed Fairs	• Three seed fairs organised with the private sector in three regions in Mali

2.1.2. The International Electronic Forum

Between March and April, 2016 an International Electronic Seed Forum was organized; this was jointly funded by CORAF/WECARD-WASP and an NGO called FARM in France within a period of four weeks. Participation in the forum covered 47 countries all over the world. A total of 350 participants (21% women) took part, 104 contributors provided their views in 375 messages, more than 12 contributions per day. Diversity of views from these participants will help improve the seed systems. Ideas on harnessing the most adapted traditional varieties, the development of new and more performant varieties and their effective use as well as strong cooperation between all stakeholders (governments, donors, researchers, seed companies and producers' organizations) were proposed. The key issues raised and debated for consensus building were summarised. Further to the e-platform, an international workshop was organized in Abidjan in June, 2016 to validate the outcomes and to draw a roadmap.

Demand & Supply	Dialogue among Stakeholders
• Tools and methods to assess demand • Improve dynamics between offer and use of genetic resources • Innovative use of ICT applications	• Dialogue and partnership between actors • Improving governance in seed industry • Effective integration of gender & youth
Genetic Resource Management	**Financing**
• "Emerging issues" nutritional value, resilience, soil nutrition • Conservation of traditional varieties • Improving famers seed systems • Not letting "orphan species" on sideline	• Rethinking seed subsidy programs • Innovative financing mechanisms
Regulatory framework	**Communication**
• Obstacles to imports and markets Review policies and operationalizing existing regulations/ Why low IPR?	• Improving communication

Table 2.1.2 Participants in ASIWA In-Country Activities

Countries	Participants	Female Participants
Benin	72	15
Burkina Faso	36	0
Cote d'Ivoire	25	5
Ghana	26	3
Mali	29	2
Niger	40	3
Nigeria	356	60
Senegal	44	8
Worldwide Electronic Forum	375	78
Electronic Forum Validation	48	3
Total	**912**	**96 (10%)**

2.1.3. Summary of Electronic Platform and Seed Market Information System (MIS)

The seed Electronic Platform so called "West Africa Seeds Information Exchange" (WASIX), accessible online by the link; www.wasix.net was developed to serve the following purposes: (i) clearing house for information and analysis related to seed sector development, ii) community of practice to facilitate exchange of ideas, experience and best practices between stakeholders, iii) gathering and disseminating information on seed demand across markets; iv) aggregating seeds supply, v) analyses on seed markets, seed market development, lessons learned, etc.

Within the first three quarters of the year and before the site was hold in suspense, 1,660 private sector entrepreneurs from 13 countries in West Africa had registered their seeds on www.wasix.net. These are from Benin, Burkina Faso, Cote d'Ivoire, the Gambia, Ghana, Guinea, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo (Table 2.1.). Visit by country is presented in Table 2.1.3

Table 2.1.1: Active Countries visiting www.wasix.net 31st June 2016

Number	Country	Number of Persons	Percentage
1	UK	214	16.4
2	Russia	204	15.7
3	Senegal	199	15.3
4	USA	133	10.2
5	Not Set	132	10.1
6	Cote d'Ivoire	40	3.0
7	China	31	2.3
8	France	25	1.9
9	Mali	25	1.9
10	Kenya	21	1.6
Total		**1,024**	**100**

Table 2.1.2: Seed Enterprises Registered on www.wasix.net, June 2016

Number	Country	Number of Entrepreneurs
1	Benin	66
2	Burkina Faso	127
3	Cape Verde	0
4	Cote d'Ivoire	25
5	Gambia	1
6	Ghana	15
7	Guinea	10
8	Guinea Bissau	0
9	Liberia	6
10	Mali	269
11	Niger	251
12	Nigeria	67
13	Senegal	356
14	Sierra Leone	3
15	Togo	434
	Total	**1630**


Regional Seed Committee (WASC & CRSU)
Implementation of the Regional Harmonized Seed Regulation
Second Statutory Meeting
Comité Régional des Semences (CORSem & CRSU)
USAID
THE WORLD BANK
CEDEAO
CORAF/WECARD

2.2 RESULT 2: Regional Harmonized Seed Regulation Implemented

The Task Force set up to manage the WASP component "Seed Policy" or "Result (R) 2: Seed Policy effectively Implemented", with INSAH/CILSS as a leader, developed a very ambitious work plan, as presented in the table in Annex 1 (extracted from the Fiscal Year AWPB 2016). This component is composed of the following four sub-components: (a) the publication of ECOWAS Seed Regulation in the Official Journal (OJ) of Member States; (b) the review/update of national seed regulatory frameworks consistence with the Regional Harmonized Seed Regulation; (c) the adaptation of procedures manuals, including the development of national quarantine pest lists for export/import, and (d) regulators' capacity strengthening, in terms of: (i) Variety Release, including the development of the National/Regional Catalogues of Plant Species and Varieties and IT Data Management ; (ii) Seed Quality Control and Certification, including Accreditation, and (iii) Phytosanitary Certification, including Import/Export related issues.

The AWPB/PTBA 2016 recorded a number of activities for each of the four sub-components mentioned above. In addition to these activities, the Seed Policy Task Force organized successfully, in Bamako, Mali, the Second Ordinary Meeting of the ECOWAS-UEMOA-CILSS Regional Seed Committee, to which attended almost all Statutory Members of the aforementioned Committee. The quorum was reached.

This report describes the achievements obtained during the Fiscal Year 2016 (FY2016) for each of these four (04) sub-components mentioned above, including the Ordinary ECOWAS-UEMOA-CILSS Regional Seed Committee Meeting. Achievements are presented with regard to the initial targets set (indicators). The methodological approach is briefly described and reference is made to the associated Regional Harmonized Seed Regulation provisions (the purpose or the rational of the activity).

2.2.1. Publish the ECOWAS Harmonized Seed Regulation in the Official Journal (Gazetting)

Through the gazetting the ECOWAS Harmonized Seed Regulation, a Member State implements the provisions of Article 87 related to the publication. This Seed Regulation enters into force in a Member State upon its publication, in accordance with the provisions of the Article 88 related to the entry into force. As at September 30, 2015, 12 Member States (Togo, Côte d'Ivoire, Guinea, Niger, Benin, Nigeria, Sierra Leone, Senegal, Burkina Faso, Mali, Liberia and The Gambia) had already gazetted the Regional Regulation (see Table 2.2.1). The targeted number of Member States that might gazette the Harmonized Regional Seed Regulation in their Official Gazette was at least three (03) by the end of September 2015, with the support of the Seed Policy Task Force[2].

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[1]The Task Force is composed mainly of :

- Dr Siaka DEMBELE (Plant Breeder – Coordinator of Seeds and Biosafety CILSS Program, Head of Agricultural Inputs and Regulations – DRIAR/INSAH);
- Dr Paul SENGHOR (Agronomist – Plant Production, Plant Breeder – Seed Policy & Advocacy Specialist, WASP-CORAF/WECARD;
- M. Aguibou COULIBALY (Engineer - IT Systems, INSAH);
- Dr Amadou DIARRA (Plant Pathologist - former Head of the Sahel Pesticides Committee, CSP / INSAH);
- Mr. Cheikh Alassane FALL (Curator - Head Unit ISRA Seed Unit);
- Mr. Barka DIENG (Agricultural Engineer - Expert on Seed Quality Control and Certification, Ministry of Agriculture and Rural Equipment - DISEM / DA / MAER / FAO SN)
- Pr. Aimé H. Bokonon-Ganta (Entomologist. – Researcher-Teacher, Master of Research in CAM, Faculty of Agricultural Sciences (FSA) / University of Abomey Calavi (UAC), Plant Protection Services (SPVCP) / DAGRI / Benin.

Nota Bene : These five (05) last persons are resource-persons and they take part according to the topic discussed.

[2]At the beginning of each Fiscal Year, since the inception of the WASP (August 1st, 2012), the Seed Policy Task Force prepare and send a circular letter to the Member States that had not yet gazetted the Seed Regulation. This circular letter and sensitization and advocacy missions, conducted in 2015/2016, helped Member States to have a better understanding of the Regional Seed Regulation but The three expected Member States to gazette the Regional Seed Regulation are Cabo Verde, Guinea Bissau and Ghana.

During this FY2016, only Ghana made a significant progress while the procedure for gazetting a Community Regulation is not respected. The Honourable Minister for Food and Agriculture introduced, on June 14, 2016, the ECOWAS Seed Regulation (C/REG.4/05/2008) as well as the Regulation on Fertilizers (C/REG.13/12/12), to the Parliament, in accordance with the Constitution of Ghana, stipulating that for a regulation to enter into force in Ghana, it must pass through the Parliement for approval. According to this Ghanaian Constitution, after 21 days of sitting in Parliament, the approved regulation will come into force, i.e. on July, 6, 2016. In this context, any other step to follow-up with the Office of the Attorney General and Ghana Publishing House is not necessary.

In conclusion, by end of September 2016, the ECOWAS Seed Regulation applies in 13 Member States, among the 17 countries of the ECOWAS-UEMOA-CILSS region. It is expected that Cabo Verde and Guinea Bissau will gazette the Regional Seed Regulation during the first quarter (Q1) of Fiscal Year 2017 (FY2017). Concerning the two CILSS Member States (Chad and Mauritania), it is expected that the ECOWAS-UEMOA-CILSS Tripartite Convention be signed probably during the next FY2017, or that any other cooperation bilateral mechanism among these two countries and ECOWAS-UEMOA, be undertaken, to allow the Community Regulations on Seeds, Fertilizers and Pesticides, to apply in these aforementioned states.

Table 2.2.1: Publications of ECOWAS Seed Regulation in Member States' Official Gazette

No	States	Date of entery into force	Reference
1.	Togo	December 17, 2012	Special N° 56
2.	Côte d'Ivoire	April 15, 2013	214 EC
3.	Guinea	May – 2013	Special N° –
4.	Niger	June 3, 2013	Special N° 12
5.	Benin	August 16, 2013	N° 15 Bis
6.	Nigeria	September 13, 2013	FOG N° –
7.	Sierra Leone	– 2013	N°–
8.	Senegal	January 25, 2014	JO N°6771
9.	Burkina Faso	February 25, 2014	Special JO N° 001
10.	Mali	June 6, 2014	JO N° 023
11.	Liberia	July 16, 2014	Vol. XIII, Extraordinary N° 35
12.	The Gambia	March 19, 2015	ISSN 0796-0201
13.	Ghana	July 6, 2016 (June 14, 2016)	i.e. after 21 days of sitting in Parliament
14.	Guinea Bissau	Expected by end of December, 2016	
15.	Capo Verde	Expected by end of December, 2016	
16.	Mauritania[3]	ECOWAS-UEMOA-CILSS Tripartite Convention expected to make this possible	
17.	Chad[4]	ECOWAS-UEMOA-CILSS Tripartite Convention expected to make this possible	

Constitutional provisions specific to English Speaking Countries prevent from the publication, as this might be for a Regional Regulation, such as the ECOWAS Seed Regulation. Through gazetting, the Harmonized Regional Seed Regulation applies in a Member State, indicating that the country is willing to be part of the common seed market under construction.

[1]Non ECOWAS Member State but CILSS Member State

[2]Non ECOWAS Member State but CILSS Member State

2.2.2 Update/develop National Legislation and Regulatory Framework in consonance with the ECOWAS Seed Regulation

The harmonization principle in the provisions of Article 4 of the ECOWAS Seed Regulation is the bedrock of this activity of updating or bridging the gap between Member States regulatory frameworks, to create confidence and facilitate intra-community trade of seed. This article states that: "In pursuance of harmonization as intended by this Regulation, the Community shall help bridge the gap between Member States (legislations in the field of seeds)." Furthermore, the ECOWAS Seed Regulation provides specific guidance on the measures to be undertaken by the Member States and those to be undertaken by the ECOWAS Commission for its implementation (see Annex 2).

To assist Member States in updating their national seed regulatory frameworks, a concept note has been prepared by the WASP Seed Policy Task Force, and shared with leaders of national seed authorities of the Member States selected by consent. Thus, for the FY2016, the eight (08) Member States targeted in the Annual Work Plan for the FY2016, have achieved this updating activity, in Bamako, Mali, on December 8-10, 2015, during a regional workshop, which brought together the National Directors General of Agriculture, representing their Minister for Agriculture, President of the National Seed Committee (NSC), and the Heads of National Seed Services in charge of seed quality control and certification, playing the secretary role for the NSC. These remaining eight targeted countries have therefore initiated the process of updating their regulatory frameworks in consonance with the ECOWAS Seed Regulation, as this has been earlier done, in Saly Portudal, Senegal, in September, 2015, by the five ECOWAS English speaking countries. All the 17 ECOWAS-UEMOA-CILSS countries initiated the process of updating their seed regulatory frameworks, as required by the provisions mentioned above to facilitate the implementation of the Community Regulation. These measures undertaken by Member States need to be completed through a national validation workshop (stage 2).

During this FY2016, the Cabo Verde and Guinea Bissau organized a two-day validation workshop, respectively, in Praia, Cabo Verde, on April 18 and 19, and in Bissau, Guinea Bissau, on September 27 and 28. Cabo Verde and Guinea Bissau, as well as many other Member States need to pursue the process of adoption by National Competent Authorities till stage 5, as indicated hereinafter:

- The drafted Harmonized Seed Regulations/Protocols/Decrees/etc. during the regional review workshops held in Saly Portudal, in the first quarter of 2016, as well as the one in Bamako, in December 2015, brought all 17 ECOWAS-UEMOA-CILSS States at Stage 1 of FtF indicators;
- The reviewed seed regulatory frameworks were to be presented during a national validation workshop, to representatives of the national seed system stakeholders (Stage 2 of FtF);
- When validated and formatted as Regulations/Protocols/Decrees/etc. these seed regulatory documents are transmitted to the Minister in charge of Agriculture for further action (Stage 3 of FtF);
- The next steps are devoted to Member States, i.e. the adoption process by National Competent Authorities (Stage 4 of FtF), and the effective implementation (Stage 5 of FtF). Table 2.2.2. shows the participation in the process of reviewing the national legislation and regulatory frameworks.

The Concept Note mentioned above outlines the steps to be followed for the review.

Stage 1: establishment of an ad hoc Working Group (WG) of a dozen people, including a lawyer, who analyzes and prepares the draft acts enacted by the ECOWAS Seed Regulation.

Stage 2: organization of a validation workshop of such acts by representatives of the national seed sector (about thirty people) ;

Stage 3: development as draft decrees acts from the validation workshop and transmission to the Minister in charge of Agriculture, for further action. These includes: (i) a draft decree/protocol/regulation instituting an Official Catalogue of Plant Species and Varieties (see Article 9.3); (ii) a draft decree/protocol/regulation establishing responsibilities, organization and functioning of the National Seed Committee (NSC, see Article 10.2); (iii) a draft decree/protocol/regulation creating a Seed Sector Support Fund (SSSF see Article 10.2); (iv) a draft decree/protocol/regulation on Enabling Technical Regulations for the production, Quality Control and Certification of Seeds and Seedlings in the country (see Article 58).

2.2.2. Update/develop National Legislation and Regulatory Frameworks

Venue and Month	Member States	Participants	Female Participants
Saly, Senegal September, 2015	**English** Gambia, Ghana, Liberia, Sierra Leone, Nigeria	20	2
Bamako, Mali December, 2015	**French & Portuguese** Cape Verde, Chad, Cote d'Ivoire, Guinea Bissau, Niger, Mali, Mauritania, Senegal	24	3
Pria, Cape Verde April, 2016	Validation Workshop	37	15
Bissau, Guinea Bissau September 2016	Validation Workshop	25	5
Total		**86**	**23 (27%)**

2.2.3. Adapt Procedures Manuals and Finalizing Executive Regulations

During the FY2016, relevant documents for the ECOWAS-UEMOA-CILSS Regional Seed Committee Second Ordinary Meeting scheduled for August 2016, have been prepared and proof red in the three ECOWAS-UEMOA-CILSS languages, i.e. French, English and Portuguese. These documents include:

- Executive Regulation 01/06/12 Related to Functions, Organization, Operations and Financing of West African Seed Committee of the Community;
- Draft Executive Regulation xx/xx/16 Organizing the ECOWAS-UEMOA-CILSS Regional Catalogue of Plant Species and Varieties;
- Draft Executive Regulation xx/xx/16 on the Enabling Technical Regulations (ETR) Relating to Seed Quality Control and Certification Procedures in ECOWAS Region;
- Culmination of the Regional Catalogue of Plant Species and Varieties;
- Concept Notes for any activity conducted by the Seed Policy Task Force, during the FY2016;
- etc

2.2.4. Strengthen Capacities of National Seed System Regulators

This activity covers three major areas of ECOWAS Seed Regulation, namely: (a) Variety Release, (b) Seed Quality Control and Certification, and (c) Phytosanitary Certification. It aims to strengthen the capacity of seed regulators to properly implement the provisions of the Harmonized Regional Seed Regulation. For this FY2016, the Seed Policy Task Force focused on the "Variety Release & Registration", through strengthening researchers' capacities to :

- (a) Properly conduct the two (02) tests required for a variety to be released, i.e. to verify (i) that the variety is distinct, uniform, and stable (DUS test) and (ii) its value for cultivation and use (VCU test);
- (b) Utilize the IT Data Management Program of ECOWAS Commission, to better manage data and edit the National vs Regional Catalogue of Species and Varieties of Plants.

Stage 4 : (devoted to Member State): adoption (signature and publication in OJ) draft decrees recalled above;

Stage 5 : (devoted to Member State): implementation of decrees.

Anglophone States were not counted among Fiscal Year 2016 participants

2.2.4. Strengthen Capacities of National Seed System Regulators

All catalogue related matters are addressed in this capacity building part. During this FY2016, the Task Force progressed and finalized the updated version of the ECOWAS-UEMOA-CILSS Regional Catalogue of Plant Species and Varieties. At least four workshops have been organized in Abidjan, Côte d'Ivoire, Bamako, Mali, and Dakar, Senegal, Banjul, The Gambia.

These workshops aimed to compile variety data from the 17 national catalogues of ECOWAS-UEMOA-CILSS countries, and agree upon the final format, the number of varieties and any other relevant information to be included in the Regional Catalogue N°1, which includes 1496 varieties. The participation in the catalogue development and training workshop is Table 2.2.3

Venue and Month	Member States	Participants	Female Participants
Saly, Senegal February, 2016	**French & Portuguese** Burkina Faso, Chad, Cape Verde, Guinea Bissau, Niger, Senegal, Togo	32	7
Banjul, The Gambia February, 2016	**English** Gambia, Ghana, Liberia, Sierra Leone, Nigeria	32	4
Abidjan, Cote d'Ivoire, March, 2016	**French** Cote d'Ivoire, Benin, Guinea, Mali, Mauritania	20	4
Bamako, Mali May, 2016	Resource Persons	10	0
Dakar, Senegal May, 2016	Resource Persons	10	0
Total		**124**	**(12%)**

2.2.5. The Second Ordinary ECOWAS-UEMOA-CILSS Regional Seed Committee Meeting

The Seed Policy Task Force playing the role of the Regional Seed Committee Secretariat organized successfully this Ordinary Committee Meeting in Bamako, on August 29 and 30, 2016, with the participation of 18 out of the 22 Statutory Members, 16 Observers (Representatives of the Organizations of Producers, the Private Seed Sector, the Organizations of the Seed Producers, the International Organizations involved in the regional seed sector), 10 resource persons and five CORAF/WECARD support staff.

The Committee examined: (i) the six recommendations derived from its First Ordinary Meeting, held in Abidjan, Côte d'Ivoire, on August 3 and 4, 2015, (ii) the ECOWAS-UEMOA-CILSS First Regional Catalogue of Plant Species and Varieties, (iii) two Draft Executive Regulations (on the Regional Catalogue and on the Enabling Technical Regulations), and (iv) the Status of Implementation of the Harmonized Regional Seed Regulation by ECOWAS-UEMOA-CILSS Member States. Following the two-day meeting, the Committee validated the following documents on seed policy, subject to the minor changes made:

- the ECOWAS-UEMOA-CILSS Regional Catalogue of Plant Species and Varieties;
- the ECOWAS-UEMOA-CILSS Draft Executive Regulation on Organization of the Regional Catalogue of Plant Species and Varieties, and
- the ECOWAS-UEMOA-CILSS Draft Executive Regulation on Enabling Technical Regulations related to Seed Quality Control and Certification in the ECOWAS-UEMOA-CILSS Region.

Team work towards finalizing the catalogue

2.2.6 Progress in the Implementation of the Regulation

The progress in the implementation of the seed regulations was tracked using the Synoptic Tables 2.2.5, 2.2.6 and 2.2.7, also demonstrated in a snapshot of bar chats and a map (Figure 2.2.3). The use of a Task Force approach in the implementation of the seed regulation helped move implementation level significantly from 41% in 2013 to 87% in 2016. The Task Force comprises CORAF/WECARD Seed Policy and Advocacy Specialist, CILSS Seed and Biosafety Specialist, a Legal Expert in Regulations, Variety Release Specialist and ICT Experts for the variety catalogue software and data management. The combination of experts for any particular task depended on the theme of intervention indicated in the yearly workplans.

Table 2.2.4. The level of Implementation of the Regulation in April, 2013

41%

Measures to be undertaken by countries of ECOWAS–UEMOA–CILSS region	Countries	Benin	Burkina Faso	Cape Verde	Chad	Côte d'Ivoire	Gambia	Guinea	Guinea Bissau	Ghana	Liberia	Mali	Mauritania	Niger	Nigeria	Senegal	Sierra Leone	Togo	%
• Publication in the Official Gazette (2.1):		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0
• Review of the Regulatory framework (2.2):																			
✓ National Seed Law		Y	Y	N	N	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	N	71
✓ Decree on National Catalogue of Plant Species and Varieties		Y	Y	N	N	Y	Y	N	N	Y	N	Y	N	Y	Y	Y	N	N	53
✓ Decree – National Seed Committee		Y	Y	N	Y	Y	Y	Y	N	Y	N	Y	Y	N	Y	Y	Y	N	71
✓ Decree on Regulation related to Seed Production, Quality Control, Certification, etc.		Y	Y	N	N	Y	Y	N	N	Y	N	Y	N	Y	Y	Y	Y	N	59
✓ Decree on Seed Sector Support Fund (SSSF)		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0
• Development of Procedures Manuals for (2.3):																			
✓ Variety Release		Y	N	N	N	Y	Y	N	N	Y	N	Y	N	N	Y	Y	N	N	29
✓ Seed Quality Control & Certification		Y	N	N	N	N	Y	Y	N	Y	N	Y	N	N	Y	Y	N	N	29
✓ Phytosanitary Certification		Y	N	N	N	N	Y	N	N	N	N	N	N	N	N	Y	N	N	12
• Strengthening capacities on (2.4):																			
✓ Human Resources		N	Y	N	N	Y	N	Y	N	Y	N	Y	N	Y	Y	Y	N	N	47
✓ Capital Resources		Y	Y	N	N	Y	Y	N	N	Y	N	Y	Y	Y	Y	Y	Y	N	59
✓ Financial Resources		Y	Y	N	N	Y	Y	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	76
TOTAL		83	58	0	8	67	33	25	0	75	17	75	25	50	67	83	25	8	

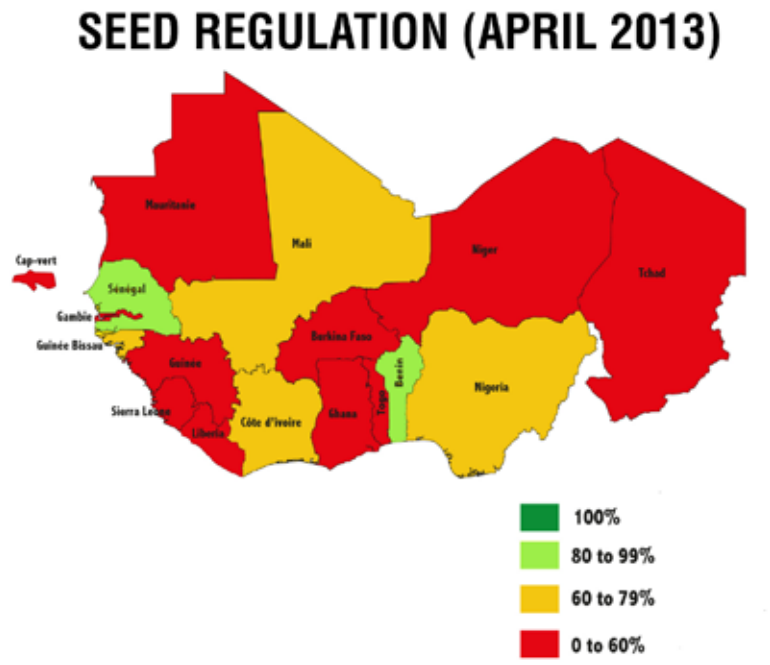
Table 2.2.5. The level of Implementation of the Regulation in September, 2015

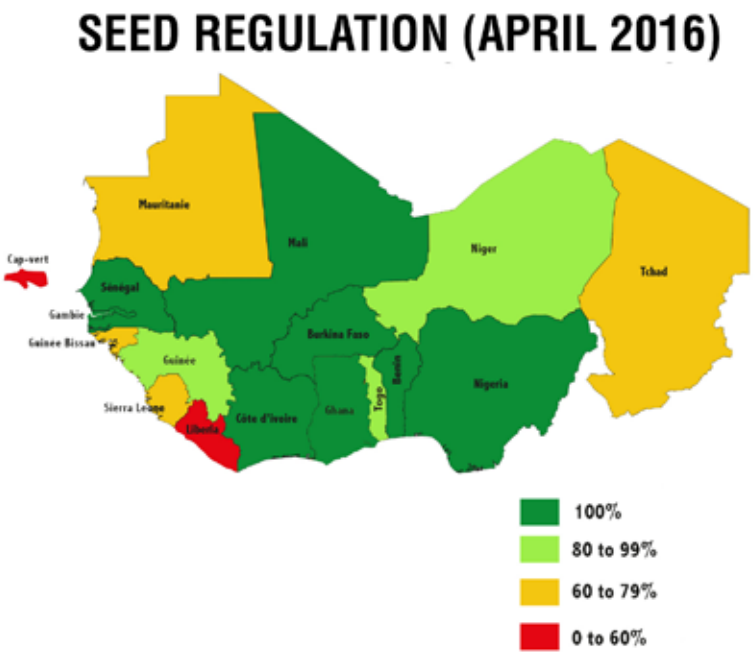
Additional Measures to be undertaken by Member States (MS) for the implementation	Targeted Countries	Benin	Burkina Faso	Capo-Verde	Côte d'Ivoire	Gambia (The)	Ghana	Guinea	Guinea Bissau	Liberia	Mali	Mauritania	Niger	Nigeria	Senegal	Sierra Leone	Chad	Togo	%
77%																			
• Publication in MS' Official Gazette (2.1):		Y	Y	N	Y	Y	N	Y	N	Y	Y	N	Y	Y	Y	Y	N	Y	71
• Review of Seed Regulatory Frameworks (2.2):																			
✓ National Seed Law		Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	82
✓ Decree instituting a National Catalogue		Y	Y	N	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	N	Y	76
✓ Decree establishing a National Seed Committee (NSC)		Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	88
✓ Decree creating Seed Sector Support Fund (SSSF)		Y	Y	N	N	Y	Y	Y	N	Y	N	N	N	Y	Y	Y	N	Y	59
✓ Decree on Enabling Technical Regulations (ETRs)		Y	Y	N	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	N	Y	76
• Adaptation of Procedures Manuals for (2.3):																			
✓ Variety Release		Y	Y	N	Y	Y	Y	Y	N	N	Y	N	Y	Y	Y	N	N	Y	65
✓ Seed Quality Control and Certification		Y	Y	N	Y	Y	Y	Y	N	N	Y	N	Y	Y	Y	N	N	Y	47
✓ Phytosanitary Certification		Y	Y	N	Y	Y	N	N	N	N	N	N	N	Y	Y	N	N	N	35
• Capacity Strengthening on (2.4):																			
✓ Human Resources		Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	82
✓ Material Resources		Y	Y	N	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	N	Y	71
✓ Financial Resources		Y	Y	N	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	N	Y	76
✧ State in country (%)		100	100	0	92	100	83	83	8	58	83	33%	83	100	100	67	17	100	

Table 2.2.6. The level of Implementation of the Regulation in April, 2016

Additional Measures to be undertaken by Member States (MS) for the implementation	Targeted Countries	Benin	Burkina Faso	Capo-Verde	Chad	Côte d'Ivoire	Gambia (The)	Ghana	Guinea	Guinea Bissau	Liberia	Mali	Mauritania	Niger	Nigeria	Senegal	Sierra Leone	Togo	%
84%																			
• Publication in MS' Official Gazette (2.1)		Y	Y	N	N	Y	Y	N	Y	N	Y	Y	N	Y	Y	Y	Y	Y	71
• Review of Seed Regulatory Frameworks (2.2):																			
✓ National Seed Law		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
✓ Decree instituting a National Catalogue		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
✓ Decree establishing a National Seed Committee (NSC)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
✓ Decree creating Seed Sector Support Fund (SSSF)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
✓ Decree on Enabling Technical Regulations (ETRs)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	100
• Adaptation of Procedures Manuals for (2.3):																			
✓ Variety Release		Y	Y	N	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y	76
✓ Seed Quality Control and Certification		Y	Y	N	N	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	N	Y	71
✓ Phytosanitary Certification		Y	Y	N	N	Y	Y	N	N	N	N	Y	N	N	Y	Y	N	N	41
• Capacity Strengthening on (2.4):																			
✓ Human Resources		Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	82
✓ Material Resources		Y	Y	N	N	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	71
✓ Financial Resources		Y	Y	N	N	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	Y	76
✧ State in country (%)		100	100	50	66	100	100	92	83	66	58	100	75	92	100	100	67	92	

Figure 2.2.3. Snapshots showing the changes in the Implementation of the Seed Regulation between 2013 and 2016





Communaute Economiqué
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Comité Permanent Inter-Etats de Lutte
contre la Sécheresse pour le Sahel

UEMOA
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2016

Catalogue Unique Régional CEDEAO-UEMOA-CILSS des Espèces et Variétés Végétales

2.3. RESULT 3: Supply of Quality Breeder Seeds Increased

Over the past three years WASP has implemented a broad spectrum of interventions aimed at enhancing capacities of the NARS and CGAIRs to produce and supply high quality breeder seed according to the quality standards spelt out in the harmonized regional seed regulations for this class of seed. The WASP has focused on providing assistance to countries to attain the level of production of each class of seed according to the seed road maps that were drawn up at the onset of the program. In FY 2016, activities are focusing on reinforcing and consolidating the successes chalked so far as a result of these interventions to build a resilient breeder seed supply system and to ensure that, the quality of seed produced is well maintained through generations. The first half of the FY 2016 was characterized by field production, inspection, harvesting, processing and packaging of seed in six WASP countries; Benin, Burkina Faso, Ghana, Mali, Nigeria, Niger and Senegal.

The second half of the year marked the beginning of the major raining season in most of the WASP focus countries. As a result, activities undertaken within this period were dominated by seed production planning sessions, uptake of breeder seed for subsequent production of foundation seed by the private sector, seed field preparation, planting and inspections for the purpose of quality control and certification. About 42 t of breeder seed was realized during the year and 77 ha of land cultivated for breeder seed production.

2.3.1. Assistance to NARS in Seed Demand Forecasting

A National Seed Planning Session to develop a rapid action for seed supply in Nigeria was supported by WASP in collaboration with FAO, the National Seed Council among others. In attendance were 350 stakeholders drawn from the Seed Association of Nigeria, National Seed Council, FAO, WASP, Farmer-based organizations and financial institutions. Also present was the Honourable Minister of Agriculture and Rural Development who gave the Keynote Address and inaugural speech of the Workshop. A four-year projection (2016 to 2020) for seed production, distribution and marketing was consultatively for the major staple crops, including maize, rice, sorghum, millet, soybean and groundnut (Table 2.3.3).

Table 2.3.3: Summary of projected seed demand of Nigeria from 2016 to 2020

Seed Class	Volume (t) required to meet demand					Responsibility
	2016	2017	2018	2019	2020	
Certified	394,294.43	413,417.73	432,795.09	453,102.14	474,384.00	Private sector
Foundation	12,891.74	13,529.93	14,175.14	14,851.76	15,561.50	Private sector
Breeder	526.51	553.05	579.88	608.03	637.40	Research

Furthermore, WASP supported the updating of the National Rice Development Strategy (NRDS) in Mali at a workshop jointly organized by the National Directorate of Agriculture and the Coalition for African Rice Development (CARD), held at Ségou from 23rd to 29th May, 2016. WASP, represented by the National Seed Specialist of Mali participated as a member of the Working Group on the NRDS. The workshop was designed to update the NRDS in accordance with agricultural development policies, the National Investment Plan for Agriculture (PNIA) which was approved by the Supreme Council in 2015 for the period 2015-2020. Other organizations in attendance included the National Directorate of Agriculture, National seed Service, National Committee of Agricultural Research, Institute of Rural Economy and the Permanent Assembly of Chambers of Agriculture of Mali-APCAM, among others. The three priority areas of the NRDS, namely i) water management, ii) mecha-

nization to increase production and quality of rice and, iii) increase in the productivity and access to markets were reviewed in three working groups. The groups consisted of legislation, projects and Programs, and institutional framework (Group 1), Production (Group 2) and supply of seed (Group 3).

Also in Benin an annual planning/forecasting workshop for the production of the classes of seed required for the 2017 cropping season was held in July. The workshop brought together some 40 seed sector stakeholders to define the volumes of production by species, varieties and classes of seed to meet the country's demand.

2.3.2. Support to NARS and CGIAR Seed Units to Produce Breeder Seeds at Required Quality Standard

In Benin, a mission was undertaken to INRAB from 3rd to 6th November 2015 to assess progress made in breeder seed production according to the agreement signed with the institution. Inspections of INRAB (Institut National des Recherches Agricoles du Bénin) breeder seed production fields were undertaken for 0.6 ha of three (3) NERICA rice varieties and 3.25 ha of maize fields cropped to seven varieties. Though some cultivation started late into the season at some locations, the crop looked good with production figures expected to tally with planned targets according to the contract. WASP-Benin supported the conditioning and packaging of 1.9 t of six varieties of maize and 2.25 t of seven varieties of rice breeder seed.

With financial and technical support from WASP to the NARS, the seed trade association of Nigeria, SEEDAN, took delivery of 16.71 t of breeder seed, comprising 4.21 t of maize from IITA and IAR&T and 12.5 t of rice from NCRI, for foundation seed production during the 2016 cropping season. Additional, 4 ha and 4.5 ha of land have been cultivated for the production of an estimated 2 t and 9 t of maize and rice breeder seed respectively.

In Senegal, among other activities in the second quarter of FY 2016, the WASP seed specialist undertook monitoring visits to ISRA and some private seed companies that had harvested seed in the previous season. It was estimated that, by the end of the cleaning and packaging processes ISRA would have produced 3.0 t of Corn, 1.2 t Sorghum, 5.2 t of Rice and 1.5 of Millet, making a total of 10.9 t, which is just 6% short of the target of 11.7 t. An additional amount 3.0 t of rice breeder seed of the varieties Sahel 134 and Sahel 108 specifically produced for Senegal through a the WASP-AfricaRice Letter of Agreement was received by the WASP-Senegal office and distributed to the private sector; multiplication of these breeder seeds into foundation seeds has commenced.

While in Burkina Faso a contract has been drawn up between WASP and INERA (Institut National de l'Environment et de la Recherche Agricole) for the production of breeder seed in the 2016 cropping season. In the previous years, breeder seed production in partnership with INERA had been a challenge in Burkina Faso. In addition, the production of the foundation seeds was exclusively the mandate of the INERA with no room for the private sector. However with the appointment of the new National Seed Specialist, several inroads have been made toward a contractual agreement between WASP and INERA for breeder seed production and the production of foundation seeds by the private sector through the Public-Private Partnership.

Tripartite agreements were signed among private sector actors, IER and WASP Mali for the production of and supply of breeder seed of millet, maize and rice. A total of 4 t of maize comprising five varieties ((Sotubaka, Dembagnouma, Jorobana, Jambala, et Brico) and 145 kg of four varieties (Toroniou, Guefoué, Syn 03 03, et

Breaking the monopoly in the production of early generation seed in Burkina Faso

Over time, INERA has had monopoly over the production of both breeder and foundation seeds in Burkina Faso. Formal and informal meetings were held between WASP Burkina and other stakeholders from the SNS, WAAPP and INERA to reach an understanding for alternative approaches for the production of breeder and foundation seed. A meeting on the 8th of January allowed to make proposals for the development and implementation of a contractual framework between INERA and the private seed sector for the production of foundation seed. This was followed by a workshop on March 22, 2016 for the validation of an agreement of partnership between INARA and the private seed sector.

SoxSAT) of millet. Meanwhile, activities conducted in Niger included the monitoring of the quantities of seed (breeder and foundation) produced with the support of the program as well as creating awareness about their availability among seed producers. An amount of 5.6 t of seed was processed by INRAN for delivery. This comprised eight varieties of millet, sorghum and rice. Contact is constantly maintained with the seed unit of INRAN and Saadia Seed Company in order to know the availability and facilitate Cooperative sale to certified seed growers. In addition potential users were informed of the availability of the seed.

During the year under review, both the CSIR-CRI and CSIR-SARI put a total of put a total of 19.18 ha under breeder seed production for maize (7.4ha), sorghum (3.05ha), rice (6.61ha) and cowpea (2.12 ha). The volume of breeder seeds (tons) produced from the area cultivated to the targeted crops is maize (7.07mt), sorghum (0.75mt), and cowpea (0.5mt). Some of the sorghum and cowpea are in the field and are yet to be harvested. The rice is yet to be harvested.

Figure 2.3.1: Breeder Seed Production Field of Maize, IITA

Table 2.3.2: Breeder seed supplied to the private sector for foundation seed production in Ghana

Crop	Quantity (kg)	No. of Varieties	No. of enterprises
Rice	1,248	1	2
Maize	2070	3	8
Sorghum	350	1	1
Cowpea	44	1	2
TOTAL	3,712	6	13

Table 2.3.3: Supply of quality breeder seeds by the NARIs and CGIAR

Crop	Country							Total
Total Volume (t)	**BN**	**GH**	**ML**	**NI**	**NG**	**SN**	**CG**	
a.Maize	1.15	8.30	4.15	0.70	1.80	10.84	16.05	42.99
b.Sorghum/Millet	0.00	7.05	4.00	0.00	1.80	3.00	16.05	15.85
c.Rice	1.15	7.05	4.00	0.00	1.80	6.00	10.00	17.15
d.Cowpea /Gnut	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.50

Crop	Country							Total
Area (ha)	**1.60**	**20.18**	**15.65**	**3.40**	**17.10**	**10.50**	**8.80**	**77.23**
a.Maize	0.00	7.40	5.00	0.00	12.6	3.00		28.00
b.Sorghum/Millet	0.00	3.05	0.15	3.40	0.00	5.00	4.20	15.80
c.Rice	1.60	6.61	10.50	0.00	4.50	2.50	4.60	30.31
d.Cowpea /Gnut	0.00	3.12	0.00	0.00	0.00	0.00		3.12

2.3.3. Strengthening the Human Capacities of the NARS to Produce Quality Seeds

In the FY 2016, 253 (51 being female) seed production officials from the NARS were trained in various topics the the WASP focus countries (Table 2.3.5).

Table 2.3.4: Human Capacity building in quality seed production (Oct, 2015 – Sept, 2016)

Country	Period	Location	Number of participants		
			Total	**Female**	**Male**
Topic : Seed legislation, good seed production practices, conditioning and seed storage					
Benin	April, 2016	Bohicon	58	11	47
Topic: Seed Production planning **Topic : Techniques in production, quality control and certification of seeds**					
Ghana	5th – 7th June, 2016	Fumesua	42	12	30
Topic: Techniques in laboratory analysis of seed					
Ghana	4th – 7th Feb, 2016, 19th-21st, June	Niamey, Kollo	66	13	53
Topic : Techniques in seed production					
Ghana	19th – 21st July, 2016, August	Zaria, Abuja	87	72	15
Total			**253**	**202**	**51**

Partner NARIs and private sector enterprises given the mandate to produce breeder and foundation seeds respectively in the target countries entered into a period of seed processing, conditioning, packaging and storage in anticipation of dissemination for further multiplication into the next classes of seed. Additionally, most of the activities conducted by the WASP country offices centered on training of field technicians and other staff from the seed production units and provision of equipment in strengthening the capacities of the NARIs and private seed companies. Training modules covered various topics including seed demand forecasting, planning for production, good agricultural practices for high quality seed production, postharvest handling, packaging, storage and management.

In Niger, Training on breeder/foundation seed production was organized for seed unit technicians of public institutions and private seed companies as well as officers in charge of seed quality control and certification in Niger. In total, the knowledge of 38 personnel (3 females) from 18 institutions/seed companies was enhanced in seed production and management. A training session on the assembly and use of technical equipment was organized for the benefit of 27 (40% females or 11 female) technicians and managers involved in post-harvest management and seed quality analysis. These trainees were drawn from the seed production units of INRAN, the DGA and the seed AINOMA farm. In collaboration with WAAPP-Ghana, the capacities of 42 (12 women) Seed Unit Staff from CSIR-Crops Research Institute, CSIR-Savanna Agricultural Research Institute, some personnel from GSID and agricultural extension were strengthened in best practices for breeder seed production, handling and management for quality maintenance with emphasis on hybrid maize and rice seed. The presentations delivered included theory and principles of seed production, hybrid maize seed production, rice seed production, quality control in seed production and certification, and laboratory practices to ensure quality breeder seed production. At the end of the training programme, participants' skills and competencies were improved in seed production, post-harvest handling and storage, quality management, seed testing and laboratory practices.

Similarly, a training workshop was held in April at Bohicon, Benin, to strengthen the technical skills of 31 field and laboratory officers from the research institute, national seed inspection agency and SMEs. This workshop aimed to improve actor's knowledge in seed quality and post-harvest handling for seed quality maintenance. The workshop also helped participants to identify needs for further education such as a specialization in seed technology and reconsider their role in agricultural productivity and seed sector development through ensuring the availability of quality breeder and foundation seed.

2.3.4. Collaboration with the CGIAR to Make New Genetic Material available to West African countries

Many varieties and advanced breeding lines have been produced and disseminated annually through the NARS by the CGIAR centres (AfricaRice and IITA) with support from WASP under technical agreements between CORAF/WECARD and these institutions.

The objectives of the agreement between CORAF/WECARD–WASP and IITA are mainly; to make the regional drought-tolerant maize variety and hybrid trials available to non-member countries of the DTMA project for evaluation; produce breeder seeds of released/promising maize varieties, parental inbred lines, and hybrids with desirable traits for the NARS; and make the seeds available to indigenous seed companies in the seven WASP partner countries–Bénin, Burkina Faso, Ghana, Mali, Niger, Nigeria, and Senegal. To this end, 1616.3 kg of breeder seed requested for in 2015 was deployed to the respective partners in the WASP countries (Table 2.3.4) while plans are far advanced to deliver additional seed in the coming quarter in July, 2016.

Table 2.3.5: Quantity of breeder seed of OPVs, hybrids and parental inbred lines deployed

Country	No. of Varieties	No. of enterprises
Senegal	16	355
Burkina Faso	69	57.3
Benin	16	134
Mali	19	473
Ghana	19	597
TOTAL		1616.3

Also within the Fiscal Year, a total of 191 sets (Table 5) of the Regional Drought Tolerant Trials were sent to Ghana, Burkina Faso, Mali, Nigeria and Benin for evaluation.

Table 2.3.6: Sets of the Regional Drought Tolerant Trials involving early and extra-early normal endosperm, QPM, and pro-vitamin maize hybrids and varieties dispatched to the NARS and seed companies in five CORAF partner countries, 2016

Trials	Benin	Burkina Faso	Ghana	Mali	Nigeria	Total
Early Multiple Stress Tolerant Pro-vitamin A Hybrid	0	0	6	3	0	9
Extra-early Multiple Stress Tolerant Pro-vitamin A Hybrid	1	1	6	5	0	13
Regional Early Maturing Multiple Stress Tolerant Variety	3	2	6	2	8	21
Regional Extra-Early White Multiple Stress Tolerant Hybrid	2	1	6	2	10	21
Regional Extra-Early Yellow Multiple Stress tolerant hybrid	2	1	6	2	10	21
Regional Early White Multiple Stress Tolerant Hybrid	3	1	3	2	7	16
Regional Early Yellow Multiple Stress Tolerant Hybrid	3	1	6	3	9	22
Regional Extra-Early Multiple Stress Variety	2	2	3	2	7	16
Regional Early White Multiple Stress Tolerant QPM Hybrid	2	1	6	3	11	23
Regional Early Yellow Multiple Stress Tolerant QPM Hybrid	2	1	6	3	11	23
Early White QPM Multiple Stress Tolerant Hybrid	0	0	0	0	6	6
TOTAL	**20**	**11**	**54**	**27**	**79**	**191**

Furthermore, a seed needs assessment was conducted through a mini survey by IITA in WASP partner countries. The results were used to determine the quantities of breeder seed per variety or line required by the countries. To satisfy this demand, an area of 12.25 ha has been put under cultivation for production of at least three (3) ton of breeder seed comprising 39 OPVs and parental lines.

2.3.4.1 Contribution to seed demand/production forecasting and roadmaps at the level of the CGIAR

WASP actively contributed to the planning workshop of the Stress Tolerant Maize for Africa organized by IITA at Ibadan, Nigeria from 30th May – 2nd June, 2016. Participants and institutions came from Benin Republic, Mali, Ghana and Nigeria. In a speech delivered by the National Seed Specialist on behalf of the WASP Chief of Party, the importance of seed to agricultural productivity and the huge role IITA is playing to make improved varieties available to the farming community in the region and beyond were emphasized. An outline was drawn to produce and disseminate at least 54,000 t of STM seed by 2019 through supply of breeder seed, demonstrations and field days, provision of equipment, trainings and technical backstopping.

WASP also contributed to the seed planning and roadmap construction of AfricaRice in a workshop held at Mbé from 1st to 2nd of June 2016. The Seed Production Specialist, who represented the Program at this event shared the experiences, lessons learnt in seed system

development especially in variety dissemination, with breeders and other partners. It was also used as a forum to obtain partner buy-in for the continuous development of WASIX which in principle is a very good tool in seed market development. The arguments were made to pool resources into developing WASIX into one big and dynamic product/marketing tool instead duplicating the same or similar in other programs within the region. At the end of the workshop a seed a seed scaling roadmap for varieties developed by AfricaRice was drafted. Existing partnerships between CORAF/WECARD-WASP, AfricaRice and other partners were discussed and tentative paths for future collaboration charted.

2.3.4.2 Update on seed of advanced breeding lines/new varieties supplied to the NARS by IITA

Reports on the activities conducted using the genetic material supplied to the NARS in previous years, through the technical agreement between CORAF/WECARD-WASP and IITA were received from scientists during the third quarter of FY 2016. The germplasm was generally evaluated in multi-locational trials for variety development. Some of these activities have already resulted in the release of about some new varieties in the region (3 in Ghana alone). These reports have been summarized in the section below.

The Institut Sénégalais de Recherches Agricoles (ISRA), Senegal, received seed of open pollinated varieties (OPVs) and hybrids of extra-early, early and striga resistant maize from IITA, in 2015. The seeds were used to conduct trials with financial support from WAAPP. Three different on-station trials with OPVs (extra-early varieties, early varieties and striga resistant varieties) and one trial with hybrids were conducted at Nioro research station located in the South Central part of the groundnut basin. Lines which were observed to be superior the local checks were selected for further evaluation in on-farm trials in 2016. These were, 4 extra-early varieties, 2 early varieties and 4 striga resistant varieties as well as 6 parental lines for hybrids.

A total of 155 kg Breeder Seed (BS) of six (6) OPVs were received by the Faculty of Agriculture, UNILORIN, Nigeria. The seed was multiplied under irrigation with to produce 4.9 t of foundation seed with funds from GOLDAGRIC, a private Seed Company based in Zaria, Nigeria. The resultant foundation seed of one of the varieties, EVDT-W-99

STR, was used to train farmers in five Adopted Villages in the benefits of using and production of Certified Seed (CS) through Community Based Seed (CBS) Production Schemes during the rainy season of 2015. The concept of Adopted Villages is implemented under the West African Agricultural Productivity Program (WAAPP) through the University of Ilorin (UNILORIN). This collaboration has strengthened the working relationship among the three institutions.

At INRAN, Niger, activities conducted with seed received in 2015 ended in May 2016 and a report was submitted to WASP. The results indicated that the introduced varieties of were superior to 3 improved varieties used as checks and yielded between 0.6 to 1.6 t higher. The most promising varieties are being evaluated in multi-locational trials to observe the effects of environment on their superiority and propose them for official release and use in Niger. FAGRI in Burkina Faso received germplasm from CORAF-WASP project through IITA to establish 17 sets of trials in 2015. The trials were conducted in two (2) agro-ecological zones of Burkina (Boucle du Mouhoun and South-West) comprising of 49 OPV entries, 188 hybrids and three (3) inbred lines. A total 25 extra-Early OPVs, 26 Early, 65 Extra-Early hybrids, 62 Early hybrids, 30 extra- Early pro-vitamin A hybrids, 40 Early QPM Hybrids and three (3) inbred lines were tested. Based on the results of the trials, FAGRI identified materials for further evaluation in the 2016 growing season in three (3) locations. Additionally, seed sent to the Maize Programs of CSIR-SARI and CRI in Ghana, was evaluated and further developed for release as varieties. CSIR-SARI set up multi-locational and on-farm trials under the DTMA Project, which is a regional project seeking to promote the availability of germplasm of drought tolerant maize in the Africa. From the results of the trials, one superior hybrid (TZEE-Y Pop STR C5 x TZEEI 82) was identified, nominated and submitted as a candidate for release to the National Variety Release and Technical Committee (NVRTC) of Ghana. In fulfilment of part of the requirement for release, fields of hybrid together with its parental lines were established for evaluation and inspection by the Committee. This hybrid was recommended to the Minister for Food and Agriculture by the Committee, and has since been released as "Nkabom". CSIR-Crops Research Institute on the other hand, increased the seed and subsequently generated F1 single crosses. The F1 single crosses were evaluated in multi-locational trials, superior materials were identified and put through on-station and on-farm testing. Two additional improved varieties, Afriyie (TZEEI-6 x TZEEI-4) and Obotantim (TZEEI-15 x TZEEI-24), were released bringing the varieties from this set of materials to three. Additional extra-early hybrids lines are being evaluated in on-farm trial seeds of the obtained from IITA were used for on-farm trials to generate data to support release of those varieties. Subsequently, seed of the new varieties including recently released ones CSIR-Wang-dataa, CSIR-Bihilifa and CSIR-Abontem were produced and packaged into mini-kit demonstrations under the SARD-SC Project in six districts. Over 1000 mini-kit plots were established in thirty communities and more than 3000 farmers were introduced to these varieties across the project target areas.

M&B Seeds requested for hybrid seed of Abotem and Omamkwa and parental lines of Opeiburo (M0826-7 F X M0826-7 M), Timtim (M0826-7 F X M0826-12 M) and Kpari-Fako (M0926-8 F X M0926-8 M) and Suhudoo (TZE-W POP DT STR C4 XTZEI 7). It is intended to cultivate 88 ha of seed certified seed in 2016, comprising 10 ha of Opeiburo, 1 ha of Timtim, 22 ha of Kpari- Fako, 10 ha of Suhudoo, 20 ha each of Omankwa and Abotem. Some of the hybrids obtained from IITA were used to set up 15 demos and in collaboration with Adidome Farm Institute, a farmers' school was held for 300 farmers (including 120 women). The seed company in collaboration with AGRA SSTP also distributed over 1000 small packs (100 g of seeds with a production guide) to farmers all over the country especially in the Volta region. This activity was carried out with agro dealers and MOFA extension agents.

This arrangement for the provision of seed of new varieties and advanced breeding lines is rapidly improving the availability of much needed multi-stress resilient and improved nutrient-quality (in the case of QPM and Pro-vitamin A maize) genetic material within the region.

2.4. RESULT 4: Private Sector Capacity Strengthened to Supply Foundation and Certified Seeds

In FY2016, efforts under Result 4 have focused on consolidating successes chalked and strengthening partnerships for the continues growth of the private sector to improve its ability to carry out its mandate of supplying quality foundation and certified seed to the farming community.

2.4.1. Training/sensitization and technical capacities development for private sector

Training and sensitization in various domains have been a pillar on which seed private sector development has been hinged. In the third quarter of FY2016, a total of 309 technicians and field managers as well as seed producer groups were trained (Table 2.4.1). This brings the number of persons trained in the current reporting year to 522 (including 216 women). Capacity of the private sector is being strengthened through two approaches: (1) organizational capacity strengthening of the National Seed Trade Associations and the AFSTA-West Africa, (2) Agri-Business capacity of the private sector strengthened.

WASP-Ghana in collaboration with WAAPP organized a training programme on seed business management, foundation and certified seed production to strengthen the capacities of the National Seed Trade Association of Ghana (NASTAG) to address some of the weaknesses in the Private Sector.

The objective of the training programme was to improve seed Small and Medium Enterprises (SMEs) competitiveness in Ghana by strengthening their technical, business management and marketing capacities. Participants were drawn from all the ten (10) Regions of Ghana and this included SEEDPAG members, GAIDA, Seed Company Managers etc. A total of 38 participants (8 females and 30 males) attended the capacity strengthening program. Resource persons were from the Universities, CSIR-CRI, WAAPP etc. to deliver on seed production and seed post-harvest management: processing, packaging, handling and storage; seed trade promotion, seed marketing; basic accounting and seed marketing cost calculation as well as development and management of business contracts. As an added bonus, a network of new partnerships and linkages was developed amongst participants.

In Benin, an awareness creation and launching workshop for the seed electronic platform, West Africa Seed Information Exchange (Wasix) was held from the 20th to 21st April, 2016. The official launching ceremony was preceded by a demonstration on the operation of the site and the various possibilities that it offers to seed sector actors wishing to post information or prospect the offers available on the site. In attendance were 72 participants including 15 women drawn from the Ministry of Agriculture, the private sector and the media. During this workshop, 15 focal point personnel were trained in the administration and management of the platform at the country level. As a follow up to the official launching and training a National Steering Committee was set up for the facilitation and technical management of the Benin Chapter (WWW.WASIX.net-BENIN). A press conference was organized for a wider dissemination of the existence of the platform and implementation relationship between national and regional actors for promotion of quality seed trade. During a monitoring visit to Niger by the Seed Production and Agribusiness Specialists, interactions with the private sector revealed that the seed SMEs operate outgrower schemes using several farmers who have very little training in seed production and marketing. The team recommended training for these out growers. As a follow-up to this, WASP-Niger organized a capacity building exercise for 110 seed producers (including 55 women) on, (i) the regulatory provisions of certified seed production and control the application, (ii) technical standards in certified seed production and (iii) contracting and marketing. The training was provided by officers from the Ministry of Agriculture, Amintchi Seed Company and supported by National Seed Specialist. In addition to resource material always given to participants at trainings, Niger produced and published a pamphlet on seed production and marketing. Fifty (50) copies of the pamphlet was distributed to seed enterprises and producer groups. This book is set in simple language with illustrations and address topics from good agricultural practices in site selection to harvesting to marketing of seed.

Faso Kaba, a female owned seed company in Mali, recently signed an agreement with CORAF/WECARD worth US$ 50,000 for capacity building activities for women and youth in the rice seed sector. In consultation with and under the technical guidance of the national seed specialist of WASP, a training workshop was organized for 59 (24 or 41% women) small producers at Siby. Also, Senegal, in the context of the funding agreement signed with the FEPRODES under the Rice seed upscaling project, capacity-building workshops were organized on seed production techniques for 147 seed producers comprising 19 men and 128 women. An additional 124 stakeholders (44 men and 88 women) have been sensitized on advocacy women's access to land. A total of 271 (63 men and 208 women) producers have been trained.

Table.2.4.1: Training to Strengthen the Capacities of the Private Sector

Country	Period	Location	Number of participants		
			Total	Female	Male
Topic : Private sector training on foundation seed production involving private organization and public institutions					
Niger	19 – 21 Dec., 2015	Niamey	38	03	35
Topic : NSTA management, leadership and Advocacy					
Burkina F.	17-18 October, 2015	Ouagadougou	29	05	24
Topic: Seed electronic Platform Management, Data entry, processing and dissemination and official launching					
Mali	6-7 October, 2015	Bamako	49	45	4
Burkina F.	19-20 October 2015	Ouagadougou	62	14	48
Senegal	24-25 March, 2016	Dakar	32	27	5
Topic: Project Financial Management					
Burkina F.	8th June, 2016	Ouagadougou	10	3	7
Senegal			1		
Topic: Regional training in environmental safeguard and pesticide use safety					
Total			**327**	**173**	**154**

2.4.1.1 Supporting Active Engagement of the NSTA to AFSTA Activities

The training of 15 managers and Executive Member Office ANESBF (AFSTA) and the UNPRB (ROPPA) on USAID's financial management procedures (08 June 2016). This training enabled to better equip stakeholders in implementation for a perfect of the activities of the program implementation «Rice seeds upscaling» at the national level and that the procedures of the donor.

2.4.1.2. Expansion of AFSTA-West Africa

AFSTA-West Africa is being expanded from seven countries (Benin, Burkina Faso, Ghana, Mali, Niger, Nigeria and Senegal) to 10 with three New Entrants (Cote d'Ivoire, the Gambia and Guinea). Contacts were established with the National Seed Trade Associations of Cote d'Ivoire, Guinea and Gambia to expand the scope of the partnership with AFSTA-West Africa. During the second quarter and with the support of the WASP, the membership of AFSTA West Africa increased with the registration of the NSTAs of Cote d'Ivoire, Guinea and Gambia, bringing to a total of ten NSTAs members of AFSTA-West Africa. In the same vein, the WASP through the AFSTA regional Office supported the organization of a regional meeting to re-dynamize the NSTAs and to develop the sustainability strategy for AFSTA – West Africa.

2.4.2. Strengthening the private sector/SME capacity in Agribusiness Management

During the third, quarter six seed companies Samlak Seeds, Nyam Agric Ventures, Gold Agric, Feedall Int., Evergreen Int., Champion Seeds; all belonging to SEEDAN (the national seed association) in Nigeria were assisted to develop business plans (6) Business Plans bringing the total number of enterprises assisted in this regard to 10. Other seed entrepreneurs have expressed interest to WASP for support to develop their businesses. The seed companies are being coached on how to use these plans to attract funding from financial institutions.

In order to further support the growth of the private sector to invest and attract investors in their seed businesses, five seed start-ups were assisted to develop business plans in Niger. The SMEs were: Hareyban (Tillabéri), Amintchi, and Alfarey Mazaada (DRE), best seed or Tatace Iri (Tahoua) and Taanadi Iri (Maradi). All these seed enterprises are formally recognized entities, but hitherto lacked; clearly laid down formal management system, accounting and investment monitoring. In the process of drawing up the business plans it came to bear that these SMEs also lacked the critical staff. These business plans are not only being used as management tools but the enterprises are being coached to be able to approach prospective investors and sell their ideas. In perspective, they are being assisted to prepare applications for credit for submission to financial institutions.

Furthermore, WASP-Niger brokered contractual agreements between two seed companies and three seed producer groups. Within the framework of these contracts, FESA, the seed company is to provide training and inputs such as fertilizers and pesticides to Cigaban Mata, a womens' seed producer group of 45 members. Adam Amintchi signed contracts with Taimakon Kaidaand Marhabin, both producers groups with a membership of 29 (including 4 women) and 25 (12 women) respectively.

Table 2: Summary of the activities carried

Seed company	Contracting Group	Nature of the Group	Object of the contract	Services provided by the company
FESA of Maradi	Group of seed-producing «Cigaban Mata» by Chadakori	45 members, all women	Production and increased use of improved seeds	(1) Training in seed production, 2) 5000kg of urea and 2500 kg of NKP 15-15-15
Adam Amintchi	Seed producer «Taimakon kaidakai» group of Wassangou/ Adam	29 members, including 4 women	Production and increased use of improved seeds	1) Training of 110 rural producers in seed production and marketing (2) 5000kg of urea and 2500 kg of NKP 15-15-15
	Group of seed-producing «Marhabin» Gimenez Gilda/Adam	25 members, including 12 women	Production and increased use of improved seeds	1) Training in seed production (2) 5000 kg of urea and 2500 kg of NKP 15-15-15

In Burkina Faso, a consultant was recruited to conduct study on «multiple pathways to promote sustainable commercial Production and delivery of breeder and foundation seed of food crops in sub-Saharan Africa». The study was initiated in March 23, 2016. A round table discussion was held during the quarter under reporting and draft report of the study will be made available in July, 2016. This study was conducted in partnership with the Bill and Melinda Gates Foundation.

2.4.3. Promoting farmer access and use of certified seed of improved varieties

Maize demonstration plots were established at three sites each in 15 States of Nigeria. This was a collaborative exercise between international seed companies: Syngenta, Monsanto, SeedCo & Du Point Pioneer; and local seed companies: Value, Premier and Maslaha to promote the use of certified seed of commercial varieties. Public entities involved in the initiative were WASP and the Seed Council of Nigeria.

WASP-Nigeria also participated actively in an Agricultural Input Fair organized in Kano, Nigeria from May 26 – 28, 2016 by ICRISAT under the Agricultural Transformation Agenda of the Federal Ministry of Agriculture and Rural Development, under the sponsorship of the African Development Bank. The inputs included seeds, agrochemicals and machineries.

To improve farmer access to high quality seed, WASP-Niger supported Sahelian Seeds, a seeds enterprise in Maradi to expand its distribution network. The Sahelian Seeds was supported to expand its network of distribution of seeds from 32 to 92 village sale points in two agricultural regions, Maradi and Zinder. These village agents received a quick training on the sale of seeds and stocks management, and were given initial seed stocks ahead of the start of the 2016 winter campaign. After a first supply of 18 742 kg and 11903 kg had been sold by the end June 2016. With the onset of the rainy season, it is expected that the sales will go up. In Mali, three seed fairs were held in three different regions Sikaso, Ségou and Mopti. Support was given to 172 seed companies and members of seed cooperatives.

Participants at the seed fairs were also taken through side events on topics pertinent to seed production and use of quality seed. Over 173 people participated in these side events. Table 3 gives details of the fairs.

Table 3: Details of the participation at the seed fair

Locality of 2016 Awards	Number of companies/ cooperative seed assisted	Number of topics discussed	Number of participants attending discussions
Sikasso	35	8	Not available
Segou	43	10	65
Mopti	94	6	108
Total	**172**	**24**	**173**

2.4.4. Facilitating foundation and certified seed production of improved genetic material

WASP contributed immensely to the achievement of the objective of the project for agricultural acceleration in Senegal. This initiative aims to contribute to self-sufficiency in rice in Senegal. To achieve this, the use of quality rice seed is essential and has been encouraged. It is envisaged that by 2017, the country would produce 1 700 000 T of paddy to cover the annual requirement for white rice in Senegal. During the year, 14 seed SMEs received 2.3 t of breeder seed from AfricaRice St Louis station. This seed has been used to cultivate 19.29 ha of land for subsequent production of foundation seed. FEPRODES in Senegal, signed a contract for the production of foundation and certified seed using six producer organizations. A total of 34.11 ha was cultivated in the third quarter for 9.77 ha of foundation and 24.34 ha of certified seed. These seed fields have been inspected by personnel of the quality control agency. About 70 t of rice seed is expected to be harvested in the First Quarter, 2017.

During the third quarter, nine seed companies in Benin reported the realization of 104.7 t of foundation seed, comprising 61.65 t of maize and 43.05 t of rice, a harvest from 39 ha cultivated in the 2015 cropping season. The foundation seed will be taken up by other seed companies for certified seed production

Table 4: SMEs' production of foundation seed of maize and rice from harvest of 2015 – 2016 in Benin

NO.	Name	Promoters	Crops	Area cultivated (Ha)	Volume of seed (T)
1	MONKASSADO-Sarl	Bliss Arouna	Rice	7	30.9
2	BORGALI-Sarl	GORADO Bio Amadou	Maize	10	23.1
3	GIE	Hawkins DINESH Antoine	Maize	5	10.3
4	Seed-Sarl or YENI-BANSEM Materi	GNARIGO S. Catherine	Rice	1	4.95
5	Dallas-City-Sarl	EDJADESSIBA Pauline	Maize	5	9.9
6	Seed of the Centre company	DAMASSOH Firmin	Rice	2	7.2
7	SIMAGRO-Sarl	MAWON Simon	Maize	3	6.95
8	LAMA-seeds-Sarl.	AYLARA Louise	Maize	1.5	1
9	AGBLEGNON-Sarl	SALGADO GBONDJIE Pierre	Maize	5	10.4
	Total	**9**		**39, 5**	**104.7**

In line with the WASP commitment to initiative to increase women involvement in seed sector development, WASP-Ghana had a Memoranda of Understanding (MOU) with two Women Groups in the Volta Region as and brokered a partnership between M&B Seeds Company in the Volta Region and the two women groups. The idea is to nurture the two (2) women groups – Miwoenenyo Women in Agriculture of Akpokope and Kekeli Women Farmers of Akrofu to produce maize and rice seeds respectively. The Groups are supervised by WASP-Ghana and M&B Seed Company. In FY 2015, these groups were trained and given technical backstopping to conduct maize and rice demonstrations. They were also assisted to produce seed on 0.5 ha of land each. During the period of reporting, the two Women Groups have cultivated at least 4 ha to produce maize and rice seeds, which will subsequently be procured by M&B Seed Company Limited.

In the context of the implementation of the project "Support for the dissemination of seeds of improved rice varieties in West Africa", contracts were signed between ANESBF (the national seed trade association of Burkina Faso) and six (06) member companies for seed production. These contracts were for the production of at least 18 t of certified seed of NERICA and ARICA rice varieties.

A joint monitoring field trip was undertaken together with a team (Seed Production Specialist and Agri-business Specialist) from WASP Regional office from 3-5 April 2016. This visit was to assess project activities on the ground and meet with various implementing partners including researchers from IER, the members of the ASSEMA (the national seed trade association), and representatives of the national program coordination office.

The team visited seed production units, laboratories and storage facilities of IER (Mali) and some seed companies. Discussions centered on models for improved dissemination of breeder and foundation seed produced in FY 2015, progress made by members of ASSEMA (national seed trade associations) in obtaining funding from financial institutions using the business plans drafted with the assistance of WASP and suggested strategies for alternative sources of investment for seed business were advanced. The trip ended with participation in the annual meeting held by IER Sotuba station (Maize Program) for handing over breeder seed to the ASSEMA for foundation seed production. At this year's event, four (4) tons of maize breeder seed was given to the association for further dissemination to foundation seed producing companies.

2.4.5 The Rice Up-Scaling Project

2.4.5.1 Increasing the production and supply of foundation seed of released improved rice varieties

Following the launching and planning workshops, at least four new varieties have been promoted in each country, 500 copies of brochure on techniques of seed production for selected varieties have been published and disseminated and about 5,915 kg of breeder seed was received through an existing CORAF/WECARD-AfricaRice agreement for production of foundation seed. Furthermore, 107.52 ha of land was cultivated for the production of an estimated 383.72 t of foundation seed and 2614.34 ha for the production of approximately 8,919.43 t of certified seed.

The capacity of 357 personnel of the private sector was strengthened in processes in becoming a certified seed producer, good agricultural practices for quality seed production, post-harvest handling including cleaning, conditioning, packaging and storage. Others include gender and land tenure considerations.

2.4.5.2 Identification of new improved and preferred released varieties of rice and information for dissemination

National consultative workshops were conducted to identify and describe important commercialized new climate smart varieties rice varieties in the countries. In Nigeria a brochure on 4 popular varieties (FARO 44, 52, 58 and 61) together the with their recommended cultivation techniques was released in 500 copies for promoting good agricultural practices among producers. Meanwhile, in Mali a list of 24 varieties, including 4 newly released ones (Arica 3, Arica 9, Arica 9 and Swarna2 F1) were identified by stakeholders and plans are underway to develop promotional materials for these varieties. Figure 4.1 shows photos of some of the identified varieties.

2.4.5.3 Estimation of breeder seed needs and planning for production

It is envisaged that 700 t of foundation seed would be produced within the two years of the project lifespan on an estimated 250 ha of land in the four focus countries. Of this amount 200 t will be in 2016 while 500 t will be produced in 2017.

To achieve these quantities 4.25 t and 10.64 t of breeder seed is required in 2016 and 2017 respectively. The quantity of breeder seed needed to produce this foundation seeds were estimated at a total of 14.88 t (Table 2.4.5).

Table 2.4.5. Breeder seed need and production planning

Year	Foundation Seed quantity (t)	Foundation seed area (ha)	Breeder needed (t)
2016	200	72	4.25
2017	500	178	10.64
Total	**700**	**250**	**14.88**

[8] Based on productivity (the quantity of seed harvested per unit of seed sown) estimates of 47; estimates of conventional yield of 2.8 MT/ha; and seeding rate estimates of 60 kg/ha.

2.4.5.4. Acquisition of Breeder Seed for foundation seed production

Breeder seed of improved varieties was received by focus countries from AfricaRice for multiplication into foundation seed. The breeder seed was produced during the 2015/2016 cropping season under a letter of agreement between AfricaRice and CORAF/WECARD-WASP an obtained by the target countries. A total of 11 varieties making up 5,915 kg of breeder seed was sent to Burkina Faso, Mali and Senegal (Table 2.4.6).

Table2.4. 6: New improved varieties used, quantity of breeder seed produced and supplied in the countries in 2016

NO.	Variety	Quantity of breeder seed deployed per country (kg)			
		Burkina Faso	Mali	Senegal	Total
1	NERICA 4	410	1000	1140	2550
2	NERICA 6			680	680
3	NERICA 8	420	300		720
4	Orylux 6	400			400
5	NERICA L19 (FKR 62N)	585			585
6	NERICA L19	350			350
7	Arica 1	150			150
8	Arica 2	20	100		120
9	Arica 3	20	300		320
10	Arica 4	20			20
11	Arica 5	20			20
	Total	**2395**	**1700**	**1820**	**5915**

2.4.5.5. Increasing the production of foundation seed

Following the selection of project partners, signing of cooperative agreements, and distribution of breeder seeds, the implementing partners realized a total of 107.52 ha. This corresponded to a 43% of the project end target of 250 ha. In Mali, nine (9) improved varieties (Adny11, Kogoni 91-1, Wassa, Nionoka, BG 90-2, Nerica 4, Nerica L1, Nerica L2, and Watt 310) were planted by three seed producer organizations (Fayida, FasoShignouma, and US-CMPD). In Nigeria, the 26 hectares were planted to four (4) popular improved varieties (FARO 44, 52, 58, and 61) through seven (7) signed contracts with seed producers. In Burkina Faso, the 36 ha are being produced through contractual agreements with 6 producers while in Senegal one contractual agreement was signed with FE-PRODES for the planting of 9.77 ha for foundation seed production. Seven varieties were used in Senegal-Sahel 108, 134, 159, 217, 177, 328, and 329. The 107.52 ha is expected to yield 383.72 t of foundation seed estimated at 2.8/ha. The total targeted areas and project performance in the areas planted to foundation seed production are shown in Table 2.4.7

Table 2.4.7: Area under cultivation for foundation seed production

Country	National Seed Trade Association	Number of varieties	Area under production			Projected yield from 2016 cropping season (t)[9]
			Area planted 2016 (ha)	Project end target 2017 (ha)	% progress at 3rd Quarter 2016	
Burkina	ANESBF		36	65.51	54.95344	126
Mali	ASSEMA	9	35.75	34.43	103.8339	175.25
Nigeria	SEEDAN	4	26	111.90	23.23503	60
Senegal	UNIS	7	9.77	38.16	25.60273	22.47
Total	**4**	**>20**	**107.52**	**250.00**	**43.008**	**383.72**

[9] Actual volumes and rates of performance achieved shall be obtained after the cropping season.

2.4.5.6. Production and supply of rice certified seed by the private sector increased

One thousand (1,000) ha of land was targeted for the production of 3000 t of certified rice seed by the end of the rice seed upscaling initiative. Within the four focus countries, 2614.34 ha of land was by AFSTA National Seed Trade Associations ANESBF (Burkina Faso), ASSEMA (Mali), SEEDAN (Nigeria) and UNIS (Senegal) with support from the project in the 3rd Quarter of 2016. This is expected to yield approximately 8,919.43 t of certified seed, which is almost three times the project target (Table 2.4.8). The actual volume of certified seed will be determined after harvest, seed processing conditioning and certification.

Table 2.4.8 : Targeted and realized/expected area of certified seed per country in 2016

Country	National Seed Trade Association	Area (h)		Volume (t)		Expected rate of performance (%)
		Project Target	Actual area planted in 2016	Actual area planted in 2016	Expected Volumes (t) from 2016 planting	
Burkina	ANESBF	262.03	2000	786.08	7,000	890.5%
Mali	ASSEMA	137.73	150	413.18	750	181.5%
Nigeria	SEEDAN	447.62	440	1342.85	1,100	81.9%
Senegal	UNIS	152.63	24.34	457.89	68.43	14.9%
Total	**4**	**1000.00**	**2614.34**	**3,000**	**8,919.43**	**297.3%**

2.4.5.7. Capacity building activities – Technical and Agri-Business

Within the context of the rice seed scaling-up project, 357 personnel in the private sector were trained in foundation and certified seed production among many other topics. This number is over two folds of the 140 personnel targeted for the project lifespan. Topics covered wee according to the peculiar needs of the respective countries. For instance, training in Burkina Faso centered on seed production planning and the use of planning tools while trainings in Nigeria, Mali and Senegal were on seed regulation and the good field practices to meet standards set within the regulation, how to reduce rate of rejection of seed lots by the national seed certification agencies, and ensure high seed quality. The knowledge of seed producers was enhanced in post-harvest technologies, including processing, conditioning and storage; and seed certification.

Cross-cutting issues such as gender and access to resources such as land were also addressed by the project. Thus trainings in gender and/or land access were conducted to further strengthen the seed actors of the private sector and sustainably develop the seed industry in Mali and Senegal. These trainings were provided together with the trainings in seed production in the case of Mali. In Senegal, the training in land access and gender was conducted as a separate event at three different places in the Senegal River valley (Ross Bethio, Colonat de Richard-Toll and Savoigne. As a result, 129 (51.94% of women) seed actors in Mali and 124 (65% of women) in Senegal were trained. Table 2.4.9 shows the level of performance achieved in each country, in terms of capacity strengthening.

Table 2.4.9: Number of people trained in seed production, gender and land access aggregated by gender

Country	Organization	Number of people targeted			Number of people trained			% achievement	
		Total	Women	Men	Total	Women	Men	Women	Total
Burkina	ANESBF	37	18	18	6	37	43	32.71	117.22
Mali	ASSEMA	19	10	10	67	62	129	694.95	669.02
Nigeria	SEEDAN	63	31	31	5	33	38	15.96	60.64
Senegal	UNIS	21	11	11	128	19	147	1198.04	687.94
Total		**140**	**70**	**70**	**206**	**151**	**357**	**294.29**	**255**

2.4.5.8. Facilitating access to seed and creating seed demand

A. Development of public-private partnerships in access to breeder seed of improved varieties

Models of contractual agreements of the type public/private and private/private were developed and shared with stakeholders. These models of contractual agreements are expected to create seed demand, facilitate the planning for the production of agreed upon quantities, promote linkages between stakeholders and stimulate partnership development among seed actors.

In Nigeria and Burkina Faso consultation meetings were held to identify popular and newly released rice varieties, producers of foundation seed and certified seed and link them with producers of paddy. In Nigeria, the meetings also involved rice millers. Hence the project facilitated linkages among all stakeholders directly involved in the rice seed value-chain.

B. Certified seeds promotion and seed demand creation activities (demonstration plots, seed fairs, and radio and TV programs, WASIX etc.)

To ensure promotion of newly released varieties and high performing varieties, the project targeted 100 demonstration plots were to be established by the end of the fourth quarter of 2016 and 4,000 farmers (50% being

women and 40% being youth) participating in field days by the end of 1st Quarter 2017. It is expected that these demonstration plots and field days will sensitize farmers on the benefits of using certified seed, which is expected to stimulate seed demand. To ensure the achievement of that objective, 12 demonstration plots covering 12 ha were established in Mali. Each demonstration plots were visited by 100 farmers (50% women). Demonstrations plots were also established in the other participating countries, Burkina Faso, Nigeria and Senegal.

Furthermore, Radio emissions in the local languages (Songhai, Khassonké and Bambara (Mandenkan) were conducted in Mali to spread the news of the ECOWAS Rice Offensive initiative, the rice seed scaling-up project, rice cultivation, and the use of quality seed of improved rice varieties. These emissions were broadcasted many times in Mali and we will continue broadcasting them using the channel "Poy-Kan-Poy" of the National Radio- "Office de Radio Diffusion et Television du Mali". Since this channel is very popular among rural populations (90% of farmers following this emission) and the national radio having 75% coverage of the national territory, it was estimated that these emissions reached at least 50% of the Malian farmers (78% of the population).

C. Mechanisms tested to increase access of farmers to certified seeds (vouchers, electronic wallet, extension services, NGOs, FBOs etc).

To increase access of farmers to seed related information and thereby access to seed markets, processes are underway such as E-voucher system and the promotion of the use of the electronic seed platform (www.wasix.net). In Mali for instance, the development of a data base of the seed beneficiaries via E-voucher system in collaboration with WAAPP was ensured.

2.4.6 The Ebola Seed Support Program

This section presents an overview of the activities and progress made after the 2015 planting season in the area of collection, storage/processing, certification and commercialization up to March 2016, for the Ebola Recovery Program being carried out in Guinea, Liberia and Sierra Leone. From the foundation seeds supplied last year, at total of 7,743 MT of certified seeds of rice were produced for supply to farmers during the 2016 cropping season. Paddy rice produced for consumption at the end of the 2015 cropping season has been estimated to be 200,436 MT which will feed 962,143 house-hold members in the three countries. It is expected that at the end of 2016 cropping season the initiative might have provided food for 2 Million household members of beneficiary families.

Figure 2.5.1: Rice certified seeds being harvested in Liberia

Figure 2.5.2. Rice Seeds Produced in Liberia in the 2015/2016 Cropping Season

Table 2.4.5. Breeder seed need and production planning

Country	Certified seeds produced (MT)	Estimated area to plant (Ha)	Estimated beneficiary farmers
Guinea	2,250	45,000	110,000
S. Leone	2,933	58,660	150,000
Liberia	2,560	50,000	140,000
Total	**7,743**	**153,660**	**400,000**

Rice Seeds Produced in 2015 for Supply in 2016

Country	No. of farmers	Grain (Mt) 2015
Guinea	48,100	70,557
S. Leone	73,181	79,795
Liberia	113,513	50,000
Total	**234,794**	**200,352**

Rice Grain Produced in the 2015/2016 Cropping Season

Figure 2.5.3. Women Bagging Rice Grain Produced in 2015/2016 Season. Liberia

2.4.8. Seed Production Trends

The total seed supplied (by class) in the 2015/2016 cropping season are presented in Table 2.4.10. A total of 130.5 tons of breeder seeds were produced with WASP contributing 33%. Additionally, 9,791 tons of foundation seeds and 268,453 tons of certified seeds were produced with WASP directly contributing 10% and 11% respectively.

Over the years, the total certified seed production increased from 40,000 tons in 2011/12 to 268,453 tons in 2015/16 (Figures 2.4.5. and 2.4.6). The drop in certified seed supply in 2015/16 was the result of decrease in seed production and use, which mainly came from Nigeria as a result of the removal on input subsidies.

Table 2.4.10 : Supply of Breeder, Foundation and Certified Seeds for the 2016 Planting Season, WA

Seed Class	Maize	Rice	Sorghum	Millet	Cowpea	G´nut	Total	% WASP
Breeder Seed (T)	96.0	19.0	8.0	6.0	1.5	0.4	130.5	43(33%)
Foundation Seed (T)	1,803	5020	457	1640	272	599	9,791	1,032(10%)
Certified Seed (T)	75,665	100,821	7,599	24,162	3,799	56,408	268,453	28,824(11%)

Figure 2.4.5 shows the changes in certified seed supplied of the major cereals and legumes from 2011/12 to 2015/16. The decreases in maize and rice in 2015/16 was the result of decrease in supply in Nigeria as a result of subsidy removal in the country during the year. It should be noted that Nigeria supplies over 65% of the regional production of maize and rice seeds. Despite these decreases, the increase seed supply in 2015/16 over the previous year was the result of the increases that occurred in millet and groundnuts (Figure 2.4.6.).

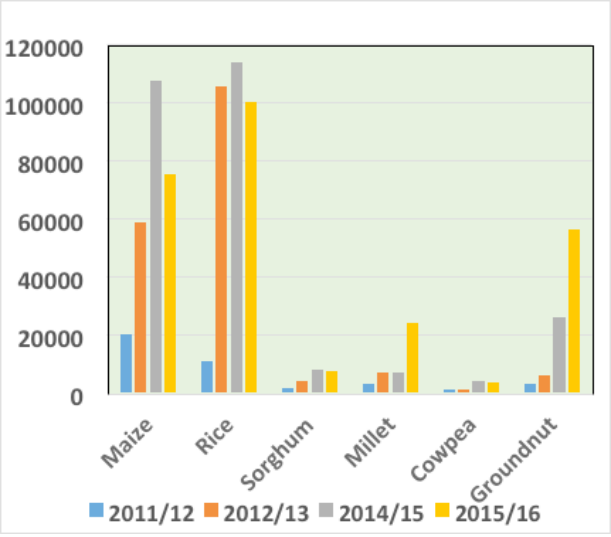

Figure 2.4.5. Certified Seed Production Trends by Crop from 2011/12 to 2015/16

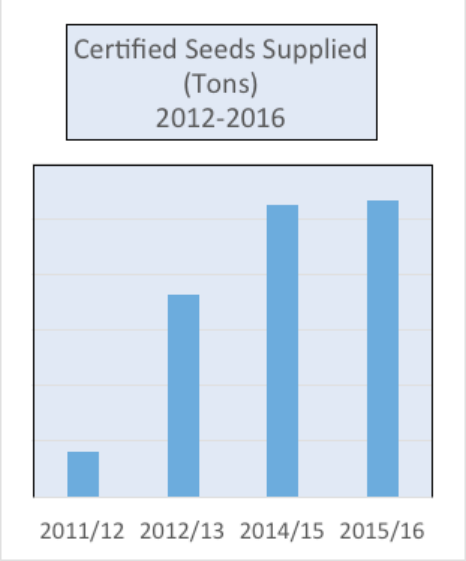

Figure 2.4.6. Total Yearly Certified Seed Production

Summary FY 2016 Achievements and Cumulative Achievements towards WASP Results 4

WASP Result 4: Production and supply of Foundation and Certified Seeds increased

Lead to Attainment of Result 4

FY 2016 Achievements towards Attaining Result 4	Cumulative achievements 2013 to 2016	Further Achievements anticipated to attain Result 4
• Strengthening of the private seed sector in Governance, Organizational development and business approaches leading to increased use of foundation seeds • High upsurge in technical knowledge and skills, and better understanding in seed systems and seed multiplication • Increased opportunity for the private seed sector to access loans and better manage businesses • Regional seed trade through information exchanges, linkages and transactions among seed system actors increased • High pull effects on breeder seeds with increased access of seeds and spill-over effects on farmers and end-users • Capacities of 876 private sector stakeholders, 371 (42%) being women strengthened in agribusiness management	• Consolidate public-private partnerships to increase production of certified seeds • Increased demo plots to share technical experiences and knowhow among seed actors • Strengthened NSTAs to increase membership and forge national seed coalitions • Increased certified seed movements across the sub-region from areas of abundance to areas of deficit • Multiplication of foundation seeds to certified seeds by the private sector increased and tracked • Land area subjected to improved technologies and quality seeds increased • Multiplication of breeder seeds to foundation seeds by the private sector increased and tracked • Multiplication of foundation seeds to certified seeds by the private sector increased and tracked • Capacities of 1,696 private sector including 531 women stakeholders (31%) strengthened in general agribusiness management	• Multiplication of foundation seeds to certified seeds by the private sector increased and tracked • Multiplication of breeder seeds to foundation seeds by the private sector increased and tracked • Consolidate capacity strengthening agenda

3. GENDER AND YOUTH MAINSTREAMING

Women constitute more than 60% of the agricultural labour force in West Africa. Irrespective of this, women access to resources such as land, credit and agri-input is low. At the inception of the WASP, women engagements in the seed sector was between 5-15%. Following the training held in February 2014 for nine countries (Benin, Burkina Faso, Ghana, Guinea, Mali, Niger, Nigeria, Senegal and Cote D'Ivoire) and an action plan developed, gender mainstreaming in the seed systems is now on ascendancy. The recently launched Rice Seed Up-Scaling project gives a special attention to women and youth entrepreneurship development in seed agribusiness to enhance their engagement in the production and supply of quality seeds. Women farmers were given priority in getting access to resources, including seeds under this initiative. Beneficiaries trained between 2015 and 2016 showed an increase in women participants from 24% to 39%.

Under the rice seed scaling initiative, special grants have been provided to support seed multiplication, processing and marketing of foundation and certified seeds for women and youth. In Senegal, the women focus association is FEPRODES with 44 of its women members and 38 youth as beneficiaries. FEPRODES established 5 ha of foundation seed, and 20 ha of certified seed and produced 25 tons of quality seeds at the end. In Mali, a woman entrepreneur, FASOKABA trained 120 beneficiaries of which 60% were women and 40%, youth. These beneficiaries had capacity strengthened on seed multiplication, processing and marketing. FASOKABA produced 25 tons of certified seeds and supported three young women to establish seed sale outlets to market certified seeds. Varieties used produce are tolerant to stresses such as drought, high temperatures and soil salinity. These were SAHEL 108, SAHEL 134, SAHEL 159, SAHEL 217, SAHEL 177, SAHEL 328 et SAHEL 329.

Mrs. Penda CISSE, Chairperson of FEPRODES, Senegal, with President Macky Sall and Agriculture Minister, Dr. Pape Abdoulaye Seck.

4. MONITORING AND EVALUATION

With the work already underway in the implementation of the WASP program expansion for Upscaling Rice Seed in West Africa, coupled with the launching of ASIWA and COASEM, it became necessary to revise the PMP together with its indicators to fit the updated results framework and capture achievements of these two regional bodies. Hence upon taking office on May 17, 2016, the new M&E Specialist i) undertook a desk review to get an insight into existing practices and challenges that existed in result base reporting, and ii) updated/upgraded the M&E System to reflect current activities. An external review of the program was also conducted during the year.

Overall, efforts were made to keep with the good tradition of data collection and verification along the project indictors

4.1 WASP-Mid-Term Review

A team of external consultants mandated by USAID ASSESS carried out a Mid Term Evaluation between 14th May and 15th June, 2016. The Team visited selected WASP countries (Ghana, Senegal, Mali and Nigeria) to evaluate the level of implementation, trajectory and challenges towards the achievement of the WASP objectives and perspectives for the future. The WASP team contributed to the mid-term review exercise with the provision of project related documents and data, participation in individual and group interviews and completion of a SWOT analysis requested by the team. Field visits and meetings with local authorities and partners were also facilitated by the CORAF/WECARD. In general partners visited including ECOWAS, UEMOA, CILSS, IFDC, WAAPP, AFSTA, NSTAs, Private Companies, ROPPA, CGIAR (IITA and AfricaRice), NARIs, Seed Regulatory Agencies, etc. viewed the WASP as a very relevant program in the region in coordinating and facilitating increased supply and use of quality certified seeds in the ECOWAS-UEMOA-CILSS region. The Mid Term Evaluation Team, however, suggested the improvement in certain aspects in the implementation and provided recommendation and re-organisation for a possible Post WASP intervention.

4.2 Update of the M&E System

In the 2016 work plan for WASP and the Rice Upscale Project document, it was planned to:

- Develop and benchmark new indicators to track progress on the newly established Alliance for Seed Industry in West Africa (ASIWA) and the Regional Committee of Seeds (COASem);
- Revise WASP results and indicators to accommodate Rice Upscale Project;
- Revise the PMP accordingly and share with USAID and other Sub-partners;
- Conduct a regional training in the revised M&E system;
- Conduct performance and impact studies;
- Conduct internal data quality assessment; etc.

During the reporting period, the M&E New WASP M&E Specialist reviewed the existing documents and tools and conducted consultations with the staff members which resulted in definition of indicators to track progress on ASIWA and COASEM. The existing data collection tools were revised and new tools are proposed to capture data on the new indicators in the Rice Upscale Project document. These tools were firstly validated at WASP Regional Team level then in a regional meeting which bring together the National Seed Specialists, the M&E Officer of the national platforms of ROPPA and the national associations of AFSTA.

Besides the updating the existing system, the M&E Specialist cleared the FY15 data quality assessment (DQA) issues and coordinated the reception and consolidation of the project's achievements in the targets countries for the four quarters. Internal DQA trips were conducted in Benin, Nigeria, Mali and Burkina Faso. Support was provided to other countries through Skype and setting of a shared drop box account to store the project evidences.

4.3 FY 2016 Performance

WASP made significant progress towards achieving its specific target for FY16. In total, 30,173 tons of seeds (Breeder, foundation and certified seeds) of maize, sorghum/millet, rice, cowpea and groundnuts were produced and made available in FY 2016. This represented 116% achievement of FY 2016 targets. In comparison with the WASP target of 2,419 ha, at total of 8,042 ha was established for the production of breeder and foundation seeds, representing 332% achievement. Moreover, extra 35,362 ha was established for the production of certified seeds. In upscaling the WASP capital, a greater focus was put on certified seed production with spill-over to other countries, such as Guinea, Liberia and Sierra Leone.

A total of 1,396 individuals (34% being women) received USG supported short-term trainings in seed policy, breeder seed production and agri-business. The number of for-profit private enterprises, producer organisations, women's groups, and trade and business associations receiving USG food security related organizational development assistance also showed a surge; thus 158 of such entities benefited from WASP support, representing 184%. Nevertheless, some shortfalls were observed in certain indictors such as the number of MSMEs receiving agricultural related credit where 41% achievement rate was realized.

4.4 The Pathway toward achievement of WASP Objective

The program high level objective is increased availability of quality certified seed from 12% in 2012 to 25% in 2017. Table 4.1 shows the trend for all the major cereal (maize, rice, sorghum and millet) which showed increased from 36,272 (12% land coverage) from 2012 to 256,154 (52%) in 2015 and then dropped to 208,247 (40%) in 2016. The percentages represent the potential needs met, based on the quantities of certified seeds required for cultivating the total land areas allocated to each crop. The drop to 40% in 2016 was mainly due to the removal of subsidies on seeds produced in Nigeria which affected the production and use of seeds. It should be noted that Nigeria supplied about about 60 % (169,236 tons) of the total seeds used in the region during the FY 2015 and 45% (120,893) in FY 2016.

Figure Table 4.2 shows the total seed supply for the major cereals and legumes in the region, which followed a similar trend. Thus, the supply of these seeds increased from 36,272 tons (12%) from FY 2012 to a high of 286,576 tons (25%) and then dropped to 268,454 tons (22.5%) in FY 2016 for the same reason given above.

Table 4.1. Trend in the demand and supply of certified seed ECOWAS member countries (Cereals only)

Commodity	2012			2013			2015			2016		
	W.A needs (t)	W.A supply (t)	% need met	W.A needs (t)	W.A supply (t)	% need met	W.A needs (t)	W.A supply (t)	% need met	W.A needs (t)	W.A supply (t)	% need met
1. Maize	93,119	20,185	22%	180,072	58,464	32%	158,650	116,840	74%	173,160	75,665	44%
2. Rice	106,298	11,112	10%	364,457	106,395	29%	188,342	113,649	60%	204,110	100,822	49%
3. Sorghum	65,610	1,650	3%	104,107	3,703	4%	83,986	9,006	11%	88,799	7,599	9%
4. Millet	40,635	3,326	8%	82,759	6,506	8%	61,162	16,659	27%	60,992	24,162	40%
5. Cowpea												
6. Groundnuts												
Total	**305,662**	**36,273**	**11.87%**	**731,395**	**175,068**	**23.94%**	**492,140**	**256,154**	**52.05%**	**527,061**	**208,247**	**39.51%**

Data sources: 2012: WASA-SP seed assessment data; 2013 and 2015, 2016: WASP seed assessment data

Table 4.2. Trend in the demand and supply of certified seed ECOWAS member countries (Cereals and legumes)

Commodity	2012			2013			2015			2016		
	W.A needs (t)	W.A supply (t)	% need met	W.A needs (t)	W.A supply (t)	% need met	W.A needs (t)	W.A supply (t)	% need met	W.A needs (t)	W.A supply (t)	% need met
1. Maize	93,119	20,185	22%	180,072	58,464	32%	158,650	116,840	74%	173,160	75,665	44%
2. Rice	106,298	11,112	10%	364,457	106,395	29%	188,342	113,649	60%	204,110	100,822	49%
3. Sorghum	65,610	1,650	3%	104,107	3,703	4%	83,986	9,006	11%	88,799	7,599	9%
4. Millet	40,635	3,326	8%	82,759	6,506	8%	61,162	16,659	27%	60,992	24,162	40%
5. Cowpea				301,724	1,257	0%	162,059	3,913	2%	177,878	3,799	2%
6. Groundnuts				302,318	5,709	2%	476,414	26,510	6%	488,937	56,408	12%
Total	**305,663**	**36,272**	**11.87%**	**1,335,437**	**182,035**	**13.63%**	**1,130,613**	**286,576**	**25.35%**	**1,193,876**	**268,454**	**22.49%**

Data sources: 2012: WASA-SP seed assessment data; 2013 and 2015, 2016: WASP seed assessment data

5. KEY PARTNERS CONSULTATIVE PROCESSES

- The WASP COP and the Seed Production Specialist participated in the AfricaRice Science and Week held in Cotonou, Benin in February, 2016. WASP experience was shared with participants across the world particularly those involved in plant breeding and seed system development. The collaboration between WASP and AfricaRice was deepened to promote rice genetic material resistant to pests and diseases and resilient to the effects of climate change.

- The WASP Team, the ECOWAS and the UEMOA Directors of Agriculture, Monsanto and National Stakeholders met in Ouagadougou in February to map out areas in seed regulation, capacity development in biotechnology and seed agri-business for support by Monsanto.

- The WASP COP and the Agri-Business Specialist participated in the Early Generation Seed Convening in Addis Ababa, Ethiopia organized by the Bill and Melinda Gates Foundation, the RECs, Africa Union, Africa Seed, CORAF/WECARD. The convening made recommendation and developed a communiqué to improve the supply of breeder and foundation seeds in Africa in order to increase certified seed supply in improving agricultural productivity.

- The WASP Agribusiness Specialist along with UPOV and GNIS participated in a mission in March to learn of the Sierra Leonean seed system and to develop a roadmap to develop the Sierra Leonean Seed Industry after its devastation by the Ebola epidemic.

In September, the WASP participated in the Africa Green Revolution Forum held in Nairobi, Kenya. The WASP National Seed Specialist in Nigeria took part in the Panel Discussion on Accelerating Agricultural Transformation through Private Sector Development of Sustainable and Responsible Use of High Quality Agricultural Inputs

- The WASP COP participated in the African Development Bank initiative, Technology for Africa Agricultural Transformation (TAAT) and Africa Agricultural Research Program (AARP) in July and October respectively.

- The WASP Regional Seed Production Specialist and National Seed Specialist in Mali participated in the Integrated Seed System Development (ISSD) Program Working Group Meeting in Nairobi, Kenya in October.

- The WASP Seed Policy and Advocacy Specialist participated in the AfricaSeeds/NEPAD Biotechnology and Seed Program result framework workshop in October.

6. ENVIRONMENTAL SAFEGUARD AND COMPLIANCE

In response to Section 4 of the Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP), CORAF/WECARD conducted an Environmental Impact Assessment in 2013, and an action plan was developed to train project teams and beneficiaries, to increase awareness of pesticides, to mitigate pesticide risks on project sites; to sensitize beneficiary seed producers on pesticide safety and to ensure environmental and natural resource protection. The PERSUAP report contains the Safe Use Action Plan (SUAP) and the Environmental Mitigation and Monitoring Plan (EMMP). Chemicals used in project activities were mainly fertilizers and pesticides which were mainly handled by professionals at the research stations. The Pesticide Evaluation Report and Safe Use Action Plan (PERSUAP) has been widely shared for implementation with project partners (CGIAR and the NARS) who are carrying out field activities such as breeder seed production. In order to carry out in-country training for additional stakeholders and beneficiaries, particularly farmers and the private sector personnel, capacities of six National Seed Specialists and 12 Plant Protection Specialists from the NARS were strengthened through a regional training workshop organized in Accra on 14th and 15th August, 2014.

In the implementation of the Rice Seed Up-Scale Project, a second training workshop was organized in St. Louis, Senegal on 1st and 2nd August, 2016 with focus on the private sector from the National Seed Trade Associations, AFSTA and ROPPA. Resource persons came from USAID/WA and CORAF/WECARD Nineteen focal persons from these organisations trained, further sensitized and passed on knowledge to colleague members within each country. The knowledge included the procedures in the management and reporting on pesticides, proper use of approved chemicals, including the use of protective clothing and proper disposal of used chemical containers to reduce health hazards and environmental pollution. The implementation of the Environmental Mitigation and Monitoring Plan during 2016 Fiscal Year helped monitor the use of agro-chemicals by the target groups. Appreciation of the relevance of the training is indicated in Table 6.

Table 6.1. Evaluation results of the CORAF/USAID Training on Safe Use of Pesticides and Environmental Safeguard

Criteria for Evaluation	Average Score
General statements on the training	89,45
Training built motivation	92.11
Expectations met	84.21
Effective methods	82.89
Visual Materials	89.47
Material level	93,42
General statements on the trainers	78,50
Trainers preparation	82,89
Knowledge on topics	76,31
Discussions effectiveness	76,31
Average score per Respondent	**84,70**

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