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Performance Evaluation of the Staple Crops and Institutional Support Program Implemented by the West and Central African Council for Agricultural Research and Development (Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles (WECARD/CORAF))

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This publication was produced at the request of the United States Agency for International Development. It was prepared by Development Alternatives Inc. and co-authored by Dr Kwaku Agyemang , Dr. Aime Landry Dongmo, Mrs Flore Line Nouke.

Cover photo:

A female-owned rice farm in rural Gambia cultivated under good water management, improved quality seed and, low seed use. Photo was taken in April 2015 by CORAF's Communication Specialist who was part of a visiting team of representatives from the organization.

ACRONYMS

AEZ	Agro-Ecological Zones
ANOVA	Analyses of Variance
CAADP	Comprehensive African Agricultural Development Program
CF	Conceptual Framework
CORAF/WECARD	Conseil Ouest et Centre Africain pour la recherche et le developpement agricoles/West and Central African Council for Agricultural Research and Development (CORAF/WECARD)
CRI	Crop Research Institute
DQA	Data Quality Assessment
ECOWAP/RAIP	Economic Community of West Africa Agricultural Policy/Regional Agricultural Investment Program
EQ	Evaluation Questions
ET	Evaluation Team
EVD	Ebola Virus Disease
FARA	Forum for Agricultural Research in Africa
FBO	Farmer Based Organization
FtF	Feed the Future
GFSI	Global Food Security Initiative
GFSRI	Global Food Security Response Initiative
IAR4D	integrated Agricultural Research for Development
IFSP	Institutional Support and Food Security Program
IS	Institutional Support
LOAs	Letters of Agreements
LSS	Linear Systematic Sampling
NARS	National Agricultural Research Systems
NGO	Non-Governmental Organizations
PVO	Private Voluntary Organization
QI	Questionnaire Instrument

QL	Qualitative
QT	Quantitative
REC	Regional Economic Community
RYMV	Rice Yellow Mottle Virus
SPS	Supplementary Program Support
SROs	Sub-regional Organizations
STC	Scientific and Technical Committee
URAPD	Union Régionale des Associations Paysannes de Doudel
USAID/WA	The United States Agency for International Development/West Africa
WAAP	West Africa Productivity Program
WASA	West Africa Seed Alliance
YIIFSWA	Yam Improvement for Income and Food Security in West Africa

EXECUTIVE SUMMARY

INTRODUCTION

The United States Agency for International Development/West Africa (USAID/WA) in 2009 signed a five-year cooperative agreement (2009-2014) with the Conseil Ouest et Centre Africain pour la recherche et le developpement agricoles/West and Central African Council for Agricultural Research and Development (CORAF/WECARD). The cooperative agreement (CA), called Institutional Support and Food Security Program (IFSP), implemented within the Global Food Security Response Initiative (GFSRI) covered two components: a five year Institutional Support (IS) for CORAF/WECARD Executive Secretariat for strengthening capacities at CORAF/WECARD Secretariat and member country research institutions in the West Africa region, and a two-year Supplementary Program Support (SPS) to enable the implementation of six projects covering staple food crops, and agricultural crop-based biotechnology by selected institutions in National Agricultural Research Systems (NARS) in 11 countries.

In 2011 USAID/WA agreed to extend the termination date of the SPS to December 31, 2012 on the account of the late start of the project activities after signing the CA. In 2012, the CA was further amended in response to USAID/WA mission's request to align activities of selected crops under the GFSRI to the USAID Feed the Future (FtF) initiative and to the priorities of ECOWAP/RAIP. In March 2013 the amendment of the CA was finalized and signed between USAID/WA and CORAF/WECARD, a process which also included the extension of the expiry date of the SPS projects from June 2014 to September 2014. Thus, both the IS and SPS components were to end at the same time in 2014. Some activities on selected crops under the GFSRI's SPS were de-emphasized in 2012 whereas activities related to cereal staple crops undertaken from the last quarter of 2012 to March 2013 (transition period) were expected to reflect the FtF priorities. The actual FtF –aligned staple crops and livestock projects were prepared during the second quarter of 2013 (Phase 2) for implantation during the rest of 2013. USAID/WA launched a joint final evaluation of the two components of the IFSP in June 2014. USAID/WA intends to use the outcome of the performance evaluation to make an informed decision for the design of a follow on IFPS project.

PURPOSE OF THE EVALUATION AND EVALUATION QUESTIONS

The overall purpose of the evaluation was to document the results from all six SPS projects and the integration of the Institutional Support (IS) component into the projects at the NARS, The specific objectives of the evaluation are to:**1)** evaluate the achievements generated by the project's intervention; **2)** evaluate the best practices and the impact on the direct and the indirect beneficiaries (attitude, technique, technological, food production, income generation, institutional, etc.); and 3) provide information on partnerships, networking and opportunities generated by the project.

USAID has been supporting CORAF/WECARD for many years to respond to food insecurity issues in the region through the coordination and prioritization of research. The funding support (2009-2014) for the two programs evaluated totaled US$7 million. These resources were provided to assist CORAF/WECARD to achieve its mandate of developing and ensuring effective implementation of sub-regional research for development programs aimed at adding value to national programs, to harmonize the activities of the existing research constituents, and to facilitate the creation of new operational research organs with a regional character.

The evaluation team collected data and information from the implementing institutions, CORAF/WECARD, and NARS, and the end-user beneficiaries of the projects to answer the following evaluation questions **1**).What are the documented achievements against the expected list of program results and expectations? **(1A),** What factors (both internal and external to the program) helped or

hindered the achievement of the program's expected outcomes as detailed in the cooperative agreement? (**1B), 2)** What adjustments, corrective actions, and/or areas for improvement are needed to ensure progress towards achieving expected results in similar future programs?, **3**) What specific opportunities exist to enhance effective program implementation and sustainability at the regional level (in particular in relation to relevant bilateral USAID programming), and to further strengthen the regional cohesive approach of the program?, **4**) To what extent did IFSP interventions address cross cutting issues on credit availability and gender-based economic development constraints in different focus countries?, **5**) Each of the six projects had built-in cross-cutting institutional and capacity building activities; to what extent were the IS activities integrated into the SPS?

KEY FINDINGS

Key findings are presented around five issues/themes identified during the review of the project's background and objectives and the justification provided by CORAF/WECARD in the funding request to USAID/WA, namely **1)** Institutional support and capacity building, **2**) Supplementary program support (SPS) projects achievements, **3**) Integration of institutional support into SPS projects **, 4**) Best practices in project implementation partnerships and stakeholders' involvement, and **5**) Success stories and up-scaling results.

Institutional support and capacity building within CORAF/WCARD and NARS (Responding to Evaluation Questions Number 1A, 1B and 2)

- There was a general acknowledgement from the CORAF/WECARD Administration and Finance Department that capacities in the department were built and deployed for improved financial management and operations of the department. Similarly, it was established that CORAF/WECARD's human resources were strengthened under the GFSRI and FtF as demonstrated by increased staff numbers (5 paid from FtF funds) and capacity to manage programs, finances, knowledge and M&E (**Annex A.1.C)**.

- Overall, the general consensus among beneficiaries and partners is that the USAID-funded IFSP was relevant and contributed to institutional strengthening at both CORAF and the NARS. Out of 92 end-user beneficiaries interviewed, 93% reported that they would be "very interested" in participating in a similar project in the future ((**Appendix 5**). At CORAF/WECARD, the two Program Managers funded by the IFSP strengthened the CORAF/WECARD Secretariat through their resource mobilization efforts that brought in an estimated $10 million in new project funds in 2011. (CORAF/WECARD Assessment Report, 2011). These new funds enabled the recruitment of additional staff for CORAF/WECARD programs;

- The scientific, coordinating and advocacy roles played by the Program Managers contributed to leveraging other agricultural and related research and/or development projects in the West Africa region funded by other donors. Examples of those donor-funded initiatives that used resources, outputs and knowledge from the SPS projects were the West Africa Agricultural Productivity (WAAP) and the Yam Improvement for Income and Food Security in West Africa, YIIFSWA, funded by the Bill and Melinda Gates Foundation;

- At the country level, the project achieved most of its training targets. In Ghana a total of 274 farmers (12.4% females) were trained in the Minisett technology and another 300 (15% females) trained in the yam vine techniques. In Nigeria, Togo and Benin, beneficiaries trained in the Minisett totaled 1,400 (15.7% females), 485 and 170 (34.7% females). In Nigeria the trained farmers trained other farmers, about 3 fold in number;

- The overhead charges of 2.5% paid to participating NARS was considered too small by most NARS Directors and some institutions felt that it had a negative impact on project implementation;

- End user-based Institutions like associations, organizations and NGOs acknowledged how much participation in the SPS projects strengthened their capacity. The members of a union of cooperatives in Mali called the USCPCS, who participated in the Striga-Sorghum project credited their successes to capacity strengthening from the project. They celebrated the following exceptional results**:** nearly 90% of the members of the USCPCS group used improved varieties of sorghum during 2013/14 season, and increased the yield of sorghum from 700 kg/ha (local varieties sorghum) to about 2500 kg / ha (improved varieties) and household income multiplied 5 fold between 2009/2010 and 2013/2014.

Supplementary program support (SPS projects under GFSRI and FtF) achievements (Evaluation Question Number 1A, 1B, 2, 3 & 4)

- At the time of the evaluation (July/August 2014) the SPS project activities under the GFSRI were mostly implemented whereas projects/activities developed during the second quarter of 2013 (second phase) to reflect the alignment with the USAID FtF initiative (FtF Projects) were largely not implemented on the ground. This was due to the delayed/lengthy project approval procedures at CORAF and late transfer of received funds at CORAF to implementing NARS institutions. Only a couple of NARS had received funds for the FtF projects at the time the evaluation team arrived at the institutions. However, at CORAF several IS activities were on-going or had been achieved, including contractual arrangements, coordination of regional activities, institutional and human capacity development, program development, policy analysis, technical capacity in critical areas including gender mainstreaming and environmental safeguard and compliance. For example, the capacity and skills of 92 individuals from 33 partner institutions were sharpened through training sessions on program planning and management which also consolidated their understanding on the functional requirements of the FtF (**Annex A.1.C**).

- The key targets/indicators set for the Yam Minisett project were as follows: a) a minimum of 25% increase in area planted with yam seeds produced through the Minisett technique, b) a minimum of 5% of yam producers in each country have adopted the yam Minisett technique, c) a minimum 2,000,000 healthy seed yam are produced, and d) a minimum of 200 demonstrations established in the four countries by June 2011. The evaluation team gathered significant evidence showing the progress made in achieving these targets **(Annex A.2** For example, the project widely demonstrated the yam Minisett technology in three administrative regions in Ghana, thirteen states in Nigeria, three regions in Togo and six districts in Benin. The seed yam produced totaled 1,211,893 or 60.6% of the target reported by the program leader. The short fall in production occurred in both Nigeria (40%) and Ghana (40%).

- Similarly, the Rice – RYMV1 project covered several AEZs in six countries. The Striga-Sorghum project attained some key targets including: - 45,000 kg of seeds produced in 2 countries, 16 contracts signed, and 3 fold yields recorded for improved varieties of sorghum **(Annex 2).**

- The team found results documented from the SPS Projects in various reports and in at least six regional and international "peer-reviewed" journals.

- Project beneficiaries demonstrated a high level of enthusiasm. 77-95% of beneficiary NARS rated SPS Projects as highly relevant. 62-90% of the 92 end-user beneficiaries interviewed reported the

benefits that they received from participation in the project, such as improvement in food security, increased cash income, better nutrition at household levels, and ability to pay school and hospital fees. About 55%, of end-user beneficiaries reported that they doubled or nearly doubled (80-100%) and had an above-average improvement (60-80%) with respect to food security. 41% reported an increase in cash income, 41% reported better household nutrition, and 52% increased -ability to pay school fees and 50% increased ability to pay hospital fees, respectively, and attributed it to their participation in the projects (**Annex B**).

- Both CORAF/WECARD program leaders and NARS project coordinators reported in surveys that some targets were not realistically set and hence not met during the implementation period. The unmet targets included the Post – Harvest: training target by about 20%. 30% of the Striga-Sorghum-targets were not achieved (**Appendix 7**).

- The planning tools the mechanisms used in regional meetings, the collaboration with CGIAR Centers and the approaches used to create and nurture partnerships **(Annex N**) were considered effective. The deepening of these methods could present unique opportunities that can enhance the implementation and sustainability of regional and sub-regional programs.

Integration of institutional support activities into SPS projects (Responds to evaluation question **1B,** 2 **& 5**)

- Substantial capacity building and strengthening activities were integrated into the SPS projects. The physical equipment purchased and/or installed included laboratory equipment, screen houses, seed stores, sixteen units of post-harvest processing machines, five screen houses and benches (**Annex G).** Office equipment included computers, heavy duty printers and photocopiers. The evaluation team gathered firsthand information on the capacity built in project leaders, their cohorts and other staff at NARS through various workshops and training sessions organized under the SPS Projects. The capacitated NARS project coordinators contributed between 40% and 90% of their time on the SPS projects under their management. The research activities under SPS projects were considered an integral part of the institutions' research and development agenda, therefore the outputs from the SPS projects, such as publications were listed in institutional publication lists.

- A wide range of capacity building activities including training were incorporated into the SPS project implementation (**Annex A.2**). The Striga-Sorghum project trained 210 seed producers, 250 farmers in FFS, and 121 private sector actors. The Yam Minisett project trained 2,629 farmers and the post-harvest project trained 500 groups of beneficiaries (80% females. Similarly the Bt Cowpea trained ninety persons in three countries and sixteen researchers.

Best practices in project implementation, partnerships and stakeholders' involvement *(Responds to evaluation question number **1A, 3, 4&5**)*

- According to the CORAF/WECARD senior management team, Innovation Platforms (IPs) represented major vehicles for developing best practices and for building lasting effective partnerships. They reported that they had succeeded in coordinating and supporting the establishment of about 175 IPs. They described the Plantain Platform in Cameroon as successful **(Annex K).** However, the evaluation team interviewed nearly 100 end user beneficiaries who shared their experiences on their involvement in the SPS projects during and after implementation and asked them about their knowledge and involvement in IPs. Only about 5% of respondents recalled having heard or participated in IPs associated with the SPS projects. A review of responses from 24 coordinators also showed that IPs have not been established.

- Survey findings showed that strong and diverse partnerships were created and used by CORAF and NARS, in project implementation. **(Annex N**). The project created approximately 50 partnerships in the framework of the Yam Minisett, 40 in Post-harvest, 15 in Striga-Sorghum, 5 in Bt Cowpea, 35 in Cassava tissue culture and 15 in Rice-RYMV1 projects, respectively.

- The partnerships with the following CGIAR centres, AfricaRice, IITA, ICRISAT) and with AATF were listed as critical project success factors. These partnerships and those engendered within countries created opportunities to enhance implementation and sustainability at the regional level.

Success stories and up-scaling results (Responds to evaluation questions **1A, 4**)

- Many extraordinary achievements in project planning, implementation and follow-up actions were found during the course of the evaluation. Some were already documented or shared with the evaluation team. One of them is the experience of evangelist Thomas Anioji from Enugu State in Nigeria. Evangelist Thomas Anioji is the world famous yam farmer from Isu-Awaa in Enugu State of Nigeria whose participation and exceptional performance in the USAID-funded CORAF-NRCRI Project on yam Minisett attracted a joint CNN International-BBC interview and a documentary report on the two Networks (See "Box Story " in Section 3.5.).

- Several success stories provided by CORAF, NARS and others observed by the evaluation team in the field are compiled and placed in **Annex J**. The evaluation team found that inadequate publicizing of success stories and that the lack of analysis of achievements to identify success factors were missed opportunities for up scaling the project's results.

- Project implementation constraints and challenges, especially delays in the disbursement of funds to field teams limited the scope and number of potential activities that could have resulted in more outcomes and successes.

CONCLUSIONS

The conclusions from the evaluation are organized around the three objectives of the evaluation listed in Section 1, namely**:** 1) Evaluate the achievements, 2) Evaluate the best practices and the impact on the direct and the indirect beneficiaries; and 3) Provide information on partnerships, networking and opportunities generated through the project.

Project Intervention and Achievements: The SPS projects carried out under the GFSRI met most of its target and addressed the felt needs of stakeholders. Among these achievements are the large numbers of Agro-ecological zones in which the projects established project activities and demonstrated technologies and the number of training courses launched and persons trained (Annex A.2). For example, for the Striga-Sorghum, 3 Regions in Mali, 3 Regions in Burkina Faso, and 10 Communities in Senegal were covered, whereas for the Yam Minisett project as many as 3 Regions in Ghana, 13 States in Nigeria, 3 Regions in Togo, 6 Districts in Benin were covered. Similarly for the Rice –RYMV1 project several AEZs in 6 countries were covered. Key targets were also reached and included: Striga-Sorghum project- 45,000 kg of seeds produced in 2 countries, 16 Contracts signed, and 3 fold yields recorded for improved varieties. For Yam Minisett project, 1,211,813 yam seeds produced. Evidence was adduced that showed that most targets were achieved by majority of the Projects. These were demonstrated in Section 3.2 and Annex A.2 of this Report. Targets not met were related to a broadly subscribed view among both CORAF and NARS Project Leaders that some of the targets set were unrealistic (Appendix 6). For projects/activities earmarked to be carried out under the FtF, delays mostly associated with internal CORAF/WECARD procedures on project reviews, approvals and validation resulted in very

little activities on the ground at NARS sites (**Annex A.1. B**). However, some essential institutional and human capacity strengthening activities were carried out by CORAF/WECARD during the period under consideration (**Annex A.1.C).**

Best practices and the impact on beneficiaries: The ways and means to meeting end-users' needs and intervening with solutions were quite different for some SPS projects. For example, the Bt Cowpea project, in addition to undertaking the technical aspects of the project, needed to work behind the scenes to get relevant legislation and regulatory bodies to put in place the necessary frameworks in order for the project to take off. The Post –Harvest project. made quick strides, because of the available infrastructure and partnership platforms at NARS, and the willingness and availability of processing-based associations in all project countries.

The lack of steady progress in the Bt Cow pea project can be attributed partly to the bottlenecks in the processes, entirely beyond the control of the program and project Leaders. Despite the best practices and intentions of partners at the country level, project activities were largely confined to labs and experimental facilities. Based on the two scenarios mentioned above, the evaluation team concluded that different implementation time frames, (would need to be set for different projects, even if several projects are funded together under a single cooperative agreement. The evaluation team concluded that women's participation in most of the SPS projects was rather low due to the small number of females engaged as project coordinators, only 4 out of a total of 31 coordinators. . Moreover, there were only 30 women out of a total of 92 respondents in the beneficiary survey. The reasons adduced for this low level of participation are that in some communities religious and cultural beliefs restrict women's involvement in farm work. In addition, some crops such as yam are considered "men's" crops; therefore, the beneficiaries of these projects tend to be predominantly men. Notwithstanding, future projects must be designed to include components of special interest to women.

Partnerships and networking: A review of CORAF/WECARD's documentation on its partnerships and partnering, including its strategic plan, and findings from key informant interviews revealed their impressive mechanism for forming and sustaining partnerships. Over 150 partnerships were developed during the implementation of the SPS projects. Evidence was presented to the team about the extensive partnerships in place at CORAF/WECARD and the impact on the SPS projects (Annex **N**. Africa Rice, IITA and ICRISAT were mentioned as CGIAR Centres who contributed their facilities and expertise to the SPS projects. The evaluation team further concluded that these partnerships will be crucial in future multi-country multi-level projects, especially in scenarios where regional travels become restricted, and therefore must be continually nurtured and sustained. The evaluation team also saw opportunities for some partners in the CGIAR system to use their finance and administration structures to help CORAF/WECARD handle their financial transactions with NARS.

Overall Conclusion: Overall, it is the conclusion of the evaluation team that the Evaluation Questions have largely been responded to in affirmative to the effect that the program achieved most goals, mostly documented but needed mechanisms to communicate results in ways that will make replication and up scaling much easier. Where targets were missed, the Evaluation Team found transparency among Program and Project Leaders in acknowledging the status but also suggested ways for adjustments and corrective actions (**Appendix 7**). The delays in approving and validating the FtF projects at CORAF/WECARD adversely affected the implementation on the ground, although some essential institutional and human capacity strengthening activities were carried out by CORAF/WECARD during the period under consideration. Some opportunities were identified by project implementers and coordinators that when considered more carefully could bring certain level of sustainability in project implementation.

RECOMMENDATIONS

The section below presents and summarizes the key challenges, constraints and relevant recommendations formulated by the evaluation team. They are organized around the five issues/themes utilized to present the findings in Section 3.

Institutional support and capacity strengthening

Speeding up the processes of project reviews, approvals and validation at CORAF/WECARD: The long process at CORAF for preparing, reviewing, approving and validating the FTF projects before the receipt of funds from USAID/WA hindered the ability of the FtF project coordination team at CORAF/WECARD to establish project activities at NARS sites efficiently. **Recommendation**: CORAF/WECARD should consider shortening the STC processes for project reviews, approvals and validation. They should also adapt flexible procedures and steps to accommodate situations where time is of the essence.

Logistic support and mobility facilitation at NARS implementing donor-funded projects: The USAID funding for institutional support enabled CORAF/WECARD to strengthen its Staple Crop and Biotechnology and Biosafety Programs. Through the SPS projects, NARS also benefited from capacity strengthening interventions. Project coordinators reported that the lack of transport and related logistics, in terms of vehicles to reach remote project sites hampered their performance. Project teams in the countries often relied on their respective institutions to conduct field work, and often faced competition with other projects at the institution.

Recommendation: USAID and CORAF/WECARD should consider making adequate budget allocations that cater for effective field level project implementation and monitoring required by NARS institutions targeted to participate in the upcoming Feed the Future projects.

Overhead charges/management fees paid to Directorates of NARS implementing donor-funded projects: The NARS leadership continually raised to the attention of the evaluation team the issue of the very low overhead charge of 2.5% paid by the SPS projects. NARS Directors argued that the rate offered by the SPS was the lowest and that it did not meet the cost of services rendered to the project. There appeared to be some resentment that the previously agreed rate of 10% with CORAF/WECARD on previous projects was not applied to the SPS projects.

Recommendation: The evaluation team recommends that CORAF/WECARD honors previous agreements made in Memoranda of Agreement with NARS regarding payments of overheads. The evaluation team recommends that CORAF/WECARD makes budget provisions that will allow the payment of at least a 10% overhead to NARS institutions implementing USAID-funded projects.

Supplementary Program Support (SPS) projects achievements

Project Logical Frameworks, Indicators and Targets: The evaluation team reviewed the logical frameworks of all the SPS Projects, and found that they varied in format, presentation and content. . A source of concern and confusion was the lack of distinction and understanding of indicators and targets and clarity on who were the target beneficiaries of some projects. For example, the indicators in some of the Logical Frameworks were expressed as targets and vice a versa, some targets defined as indicators.

Recommendations: CORAF/WECARD should better articulate the definitions of indicators and targets in their M&E frameworks and ensure NARS are familiar with the elements of the Log frames, including the methodology for establishing credible baselines. CORAF/WECARD should organize a

series of training courses for the M&E staff of the NARS. The training courses should include current and prospective project coordinators.

Documentation of Research Results and Progress Reports: The evaluation team reviewed documented research and progress reports prepared by CORAF/WECARD and SPS project coordinators. The team observed that the format for reporting results, the organization of data, and the level of details varied from project to project. The extent of variability made it extremely difficult and time consuming to make comparisons across projects and synthesize data.

Recommendation: CORAF/WECARD should standardize report formats for various categories projects. . These standardized formats should be shared and used by the NARS that are participating in the project.

Integration of Institutional Support into SPS projects

Scope of integration: The evaluation team found credible evidence that the institutional support in terms of capacity building and strengthening were well integrated into the SPS projects.

Recommendation: CORAF and participating NARS should ensure that integration should be more encompassing (beyond physical and material items) to include procedures and methodologies that benefit NARS in their implementation.

Best Practices in implementation, partnerships and involvement of Stakeholders

Innovation Platforms and experience sharing and exchanges: Although the evaluation team found only a couple of rudimentary Innovation Platforms associated with the SPS projects in the field, there were indications that a few project end-user beneficiaries are familiar with the processes of IP operations and have participated in IPs of other projects.

Recommendation: CORAF/WECARD program managers should take advantage of the opportunities on the ground to speed up the process of initiating the formation of IPs that will serve the needs of future projects.

Recommendation: USAID and CORAF/WECARD should capitalize on the experience and novel approaches used and learned in the SPS projects to inform methodologies and researchable topics in future projects.

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1.0 INTRODUCTION

The United States Agency for International Development/West Africa (USAID/WA) in 2009 signed a five-year cooperative agreement (2009-2014) with the Conseil Ouest et Centre Africain pour la recherche et le developpement agricoles/West and Central African Council for Agricultural Research and Development (CORAF/WECARD). The cooperative agreement (CA), called Institutional Support and Food Security Program (IFSP), implemented within the Global Food Security Response Initiative (GFSRI) covered two components: a five year Institutional Support (IS) for CORAF/WECARD Executive Secretariat for strengthening capacities at CORAF/WECARD Secretariat and member country research institutions in the West Africa region, and a two-year Supplementary Program Support (SPS) to enable the implementation of six projects covering staple food crops, and agricultural crop-based biotechnology by selected institutions in National Agricultural Research Systems (NARS) in 11 countries.

In 2011 USAID/WA agreed to extend the termination date of the SPS to the 31st December, 2012 on the account of the late start of the project activities after signing the CA. In 2012, the CA was further amended in response to USAID/WA mission's request to align the activities of selected crops under the GFSRI to the USAID Feed the Future (FtF) initiative and to the priorities of the ECOWAP/RAIP. In March 2013 the amendment of the CA was finalized and signed between USAID/WA and CORAF/WECARD, a process which also included the extension of the expiry date of the SPS projects from June 2014 to September 2014. Thus, both the IS and SPS components were to end at the same time in 2014. Some activities on selected crops under the GFSRI's SPS were de-emphasized in 2012 whereas activities related to cereal staple crops undertaken from the last quarter of 2012 to March 2013 (transition period) were expected to reflect the FtF priorities. The actual FtF –aligned staple crops and livestock projects were prepared in second quarter of 2013 (Phase 2) for implantation during the rest of 2013. USAID/WA launched a joint final evaluation of the two components of the IFSP in June 2014. USAID/WA intends to use the outcome of the performance evaluation to make an informed decision for the design of a follow on IFPS project.

1.1 PURPOSE OF THE EVALUATION AND EVALUATION QUESTIONS

The objective of the evaluation was to document the results from all six SPS projects and the integration of the Institutional Support (IS) component into the projects at the NARS institutions. The achievements of the IS component at the CORAF/WECARD Executive level were also to be documented. The overall purpose the evaluation is to: 1) Evaluate the achievements generated by the intervention of the projects; 2) Evaluate the best practices and the impact on the direct and the indirect beneficiaries (attitude, technique, technological, food production, income generation, institutional, etc.); and 3) Provide information on partnerships, networking and opportunities generated through the project.

The Evaluation was designed to answer the questions listed below through information gathered from the implementing institutions, CORAF/WECARD and participating NARS, and end-user beneficiaries of the projects, the evaluation questions being: **1**).What are the documented achievements against the expected list of program results and expectations? (1A)**,** What factors (both internal and external to the program) helped or hindered the achievement of the program's expected outcomes as detailed in the cooperative agreement? (**1B), 2)** What adjustments, corrective actions, and/or areas for improvement are needed to ensure progress towards achieving expected results in similar future programs?, **3**) What specific opportunities exist to enhance effective program implementation and sustainability at the regional level (in particular in relation to relevant bilateral USAID programming), and to further strengthen the regional cohesive approach of the program?, **4**) To what extent did IFSP interventions address cross cutting issues on credit availability and gender-based economic development constraints in

different focus countries?, **5**) Each of the six projects had built-in cross-cutting institutional and capacity building activities; to what extent were the IS activities integrated into the SPS?

1.2 PROJECT BACKGROUND IN THE CONTEXT OF OVERALL CORAF/WECARD MANDATE AND MISSION

The West and Central African Council for Agricultural Research and Development (CORAF/WECARD) is the regional organization responsible for coordinating research in 22 countries in West and Central Africa. CORAF/WECARD whose Mission is "*to promote sustainable improvements in the competitiveness, productivity, and markets of the agricultural system in West and Central Africa by meeting the key demands of the sub-regional research system expressed by target groups*" has a Vision "to *achieve a sustainable reduction in poverty and food insecurity in West and Central Africa through an increase in agriculture-led growth and the sustainable improvement of key aspects of agricultural research systems*". CORAF/WECARD's mandate has been expanded to include the implementation of Pillar 4 of the Comprehensive African Agricultural Development Program (CAADP). A 10-year strategic plan (2007-2016), adopted by its General Assembly in May 2007, is in operation and guides all the activities of CORAF/WECARD aimed at achieving its mandate. Producers and users of technology are at the center of CORAF/WECARD's interventions. Mechanisms for technology development and transfer to the various beneficiaries use CORAF/WECARD's IAR4D approach, which is the foundation of the institution's strategy for the inclusion of all the stakeholders. CORAF/WECARD will use the innovation platforms as a tool for project development, implementation, monitoring and evaluation. CORAF/WECARD is one of the four Sub-regional Organizations (SROs) in Africa under the Forum for Agricultural Research in Africa (FARA) also works closely with the West Africa Regional Economic Community (REC), ECOWAS.

The five-year cooperative agreement between CORAF/WECARD and the USAID West Africa Mission was to support and strengthen CORAF/WECARD to effectively play its role in coordination, advocacy, knowledge management and capacity strengthening of the National Agricultural Research Systems to implement CAADP's Agricultural Research pillar. Under the SPS component of the cooperative agreement, six projects were supported: (i) integrated *Striga* control in sorghum, (ii) improving the yam mini-sett technology, (iii) agro-processing in rice, cassava, sorghum/millet products, (iv) Bt-cowpea research, (v) improving cassava planting materials and (vi) research on rice resistant to the Rice Yellow Mottle Virus (RYMV). Each of the six projects had built-in cross-cutting Institutional Support (IS) and capacity strengthening of CORAF/WECARD's Executive Secretariat as well as its constituents in Financial and Human Resources Management, Resources Mobilization, Coordination of the National Agricultural Research Systems (NARS), Monitoring and Evaluation, Communication and Knowledge Management. Each of the six SPS projects also had built-in cross-cutting institutional and capacity building activities, including training, to strengthen value chain actors for enhanced food security. In summary, the main purpose of the USAID/WA assistance was to support CORAF/WECARD achieve its mandate to develop and ensure effective implementation of sub regional research for development programs aimed at adding value to national programs, harmonize the activities of the existing research constituents, and facilitate the creation of new operational research organs with a regional character (Cooperative Agreement No. **624-A-00-09-00037-00)**.

To implement the IFSP, CORAF assembled a consortium of partner organizations with specific skills and roles to play. CORAF specifically engaged in the oversight and management of programs at the sub-regional level whereas implementation of programs activities were conducted through the NARS whose stakeholders represent major beneficiaries of those programs. The illustration below shows how sub regional research was coordinated, managed and implemented down to the National level (SOW, **Annex C**).

IFSP/SPS Projects – Coherence with CORAF/WECARD Core Programs

CORAF/WECARD currently pursues its Mission and Objectives through the coordination of eight inter-related Programs, namely Livestock, Fisheries, and Aquaculture Program, Staple Crops Program, Non-Staple Crops Program, Natural Resource Management Program, Biotechnology and Biosafety Program, Policies, Markets, and Trade Program, Agriculture Knowledge Management Program, and Capacity Building and Coordination Program. The coherence of the six SPS projects supported by the USAID funding with selected CORAF/WECARD programs is illustrated in Table 1 below:

Table 1: Coherence of USAID-funded SPS Projects goals and expected results of CORAF/WECARD Programs

Intended results of CORAF Programs	SPS Projects under Staple Crops Program			SPS Projects under Biotechnology and Biosafety Program		
	Striga control in sorghum	Yam mini-sett technology	Post-harvest technologies	Bt-cowpea research	Cassava planting materials	Rice resistant to Yellow Mottle Virus
Appropriate technologies are generated		x			x	
Technologies are released and Innovations enhanced	x	x	x		x	x
Policy options for enhancing the performance of the agricultural sector facilitated				x		
Institutional capacity of the NARS strengthened	x	x	x	x	x	x
Access of clients & vulnerable groups to knowledge and innovations improved	x	x	x		x	
Information exchange and knowledge management improved	x	x	x	x	x	x

2.0 METHODOLOGIES AND LIMITATIONS OF METHODS

This Section of the Report presents the methodology for the Evaluation. It outlines the approach adopted in carrying out the assignment, including selection of countries, institutions and personnel of focus, and grassroots stakeholders earmarked for discussions and interviews. The evaluation took the approach of gathering hard core evidence (e.g. numbers stated for specific indicators and targets realized) from program and project leaders, and the perspectives of representatives of key stakeholder institutions, organisations and individuals who participated in project activities and/or benefited from the projects.

The Conceptual Framework (CF) underpinning the Evaluation is in Figure 1 below. Whereas the focus of the evaluation was on CORAF/WECARD Executive Secretariat, its Program Leaders and Project Leaders, it was conceptualised that NARS leaders (Director level) being the links between their institutions and CORAF/WECARD and are the supervisors of SPS Project Coordinators at the level of NARS, constitute an important source of information concerning the SPS Projects, and how their institutions were impacted by project implementation. Thus, arrows indicating information flow between their respective NARS and CORAF/WECARD Executive Secretariat are shown in the CF. Similarly, horizontal relationship between USAID/West Africa with CORAF/WECARD Executive Secretary's Office is indicated as well as that with CORAF/WECARD Program Leaders. It was also conceptualized that CORAF/WECARD, an institution that claims to "*put producers and end-users at the center of research*" would ensure information flow to and from NARS institutions engaged in the implementation of the SPS projects, who in turn would have similar linkages with project beneficiaries. These relationships and information flows are depicted in the CF shown below.

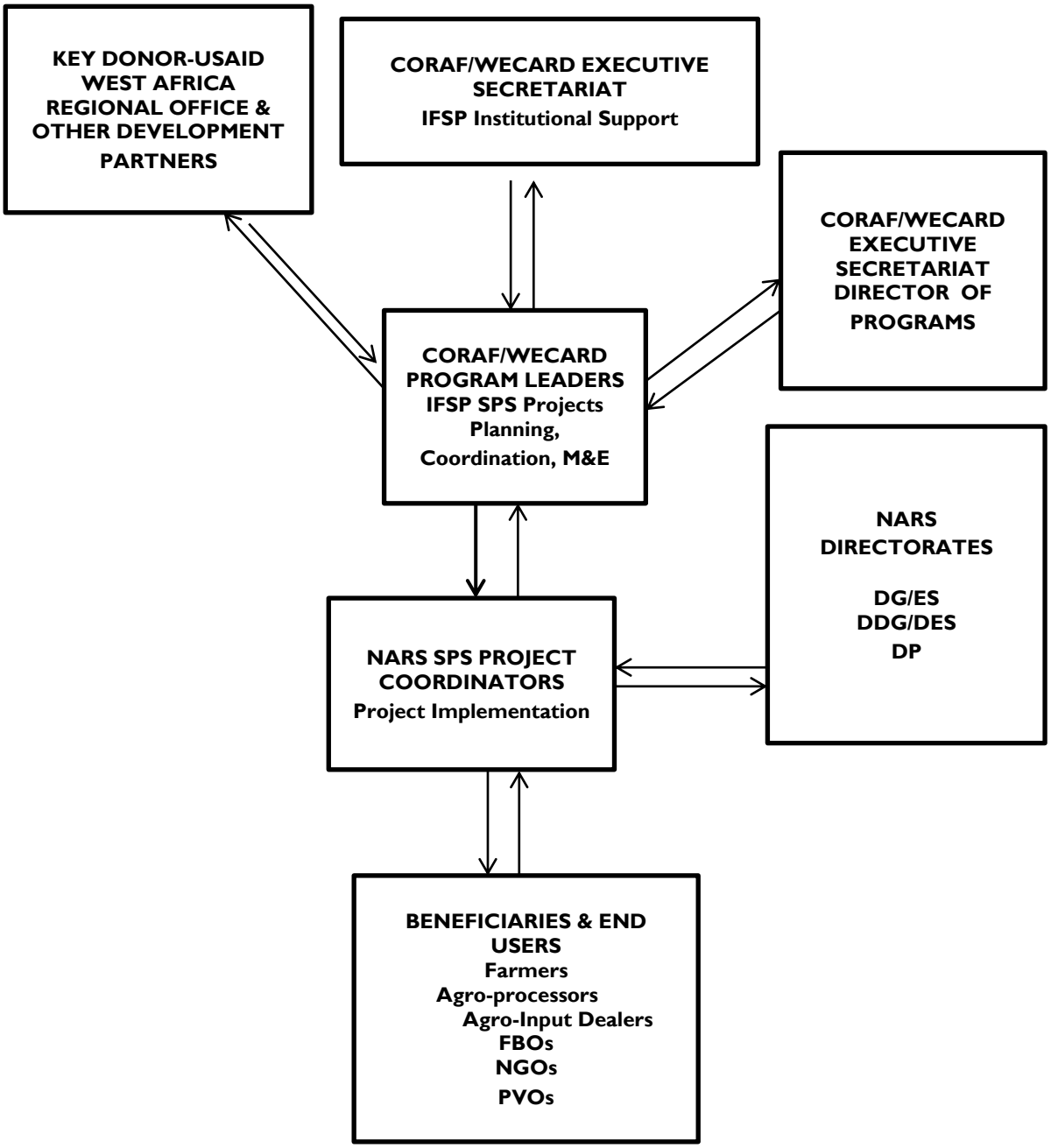
The approach to data gathering used for the Evaluation involved a 2-pronged effort: literature review of existing documents on CORAF/WECARD, on the USAID-funded IFSP documents, among them, the cooperative agreement and program description, annual work plans, quarterly and annual reports and USAID evaluation reports on field trips/site visits, and data collection effort either through face-to-face interviews or through questionnaires mailed out to Project Coordinators, Directors of NARS institutions and other stakeholders in areas where face-to-face interviews were not possible because of logistical and time constraints. An overview of the approach used in data gathering is shown in Figure 2 (**Annex A.4**) In order to learn about how the SPS Projects and associated institutional support components fitted in the overall NARS research and development programs, and how the projects performed, in terms of outputs, achievements and strengthening both the program and infrastructure at the institutes, discussions and interviews were conducted in some cases with Directors General, Executive Directors and Directors of Programs at the participating institutes.

2.1 METHODOLOGIES – SAMPLING AND ANALYTICAL PROCEDURES

In the selection of countries where the Evaluation Team (ET) would visit to conduct face-face evaluation meetings with project stakeholders, three considerations were made, namely a) countries where larger number of SPS projects were implemented, b) *a priori* selected countries by USAID/West Africa as priority countries (Senegal, Mali, Ghana and Liberia) , and c) countries which led the preparation of the SPS projects and subsequently coordinating the projects on behalf of other participating countries. Eight countries, Senegal, Mali, Burkina Faso, Cote D'Ivoire, Benin, Nigeria, Ghana and Liberia were eventually selected to be visited. Togo, Sierra Leone and Niger were not be visited but would contribute to the evaluation through a plan designed by the Evaluation Team by sending out to the Project Coordinators the same questionnaire given in the eight countries to be visited to be completed and sent back to the Evaluation Team. In all a total of 32 Coordinators were expected to provide information on the six SPS projects.

With regards to the selection of project participants and beneficiaries to be interviewed a mixture of purposive sampling and random sampling were employed, depending on whether the Evaluation Team had access to a previously developed list of participants. Where lists were available a random sample of beneficiaries were selected using a Linear Systematic Sampling (LSS) approach. Where lists were not available the Evaluation relied on Project Leaders to select beneficiaries to be interviewed. In each case, formal questionnaire instruments were administered by a member of the Evaluation Team or by an enumerator of the NARS institution traveling with the Team or by him/herself where the distances were too far for the Team to visit, taken into consideration the time available to the ET. A minimum sample size of six (6) per project per country visited was aimed at (Annex B). A total of about 100 beneficiaries were expected to be interviewed according to the sampling scheme. In addition to the individual beneficiaries to be interviewed the Team planned to interview at least one farmer-based, processor-based or market-based Association per country or an NGO involved in any of the project in the country.

Figure 1: Conceptual Framework underpinning the IFSP Evaluation and Information Flow



Following guidelines provided by USAID/West Africa in line with approved evaluation design methodology, data collection approaches and analytical procedures, the Evaluation Team developed a standard evaluation design and adapted them for the various SPS projects and different target groups (program and project leaders, NARS leadership, etc., **Appendix 1).** A common evaluation design was developed for beneficiaries, irrespective of the SPS projects in which they participated (**Appendix 4**). A general approach to the designs was the adoption of Non-experimental and Quasi experimental methods that would allow for both quantitative (QT) and qualitative (QL) data collection. The designs were selected to enable descriptive statistics (frequency, means, standard deviations, etc.) on relevant variables to be calculated. Raw means comparisons and estimated marginal means from Analyses of

Variance (ANOVA) methodology (Generalized Linear Models option) were also planned on the data generated under the selected evaluation design. A summary of planned data collection methods, data collection tools and target groups is found in Table 2 below.

Table 2: Summary of Data Collection Methods, Target Groups, and Sources

Quantitative (QT) or Qualitative (QL)	Planned Data Collection Method	Data Collection Tool [w/ examples of specific tools]	Target Groups and Sources
QL	Open-ended questionnaire	Key informant interviews in-person	CORAF Senior Management-Executive Director/Director of Program/Program Leaders
QT/QL	Structured questionnaire	Individual personal Knowledge on Project/Program	CORAF SPS Program Leaders; 1 Key Senior Management personnel
QT/QL	Structured questionnaire Open-ended Questionnaire	Individual personal Knowledge on Project/Program (in person or e-mail) Individual personal Knowledge on Project/Program	28 SPS Project Leaders at NARS in 11 countries 22 SPS Project Leaders at NARS in 7 countries with varying number of Project staff
QT/QL	Structured questionnaire Open-ended questionnaire	Individual personal Knowledge on Project/Program (in person or e-mail) Key informant interviews in-person.	7 Directors/Director of Programs at NARS Institutes in 7 countries 7 Directors General, Executive Secretaries and Executive Directors of NARS in 7 countries
QT/QL	Structured Questionnaire	Individual personal Knowledge on Project (in person or proxy enumerator)	100 Project beneficiaries in 7 countries
QL	Focus group	Group knowledge on project in person	7 NGOs, User-based Organizations, Associations, Cooperatives in 7 countries
QT/QL	Literature review	Desktop review of secondary data	CORAF program documents/ partner and stakeholder program documents

Adapted from: West Africa Institutional Assessment CORAF/WECARD, June 2011

The Evaluation Team of three Consultants conducted field visits in Senegal and Mali and thereafter broke into two teams. The 2-person team conducted additional field visits to Burkina Faso, Cote D'Ivoire and Benin while the 1-person sub-team conducted field visits to Nigeria and Ghana. The planned third country to be visited, Liberia, was excluded in the course of the field visits due to the outbreak of Ebola Viral Disease (EVD) in the country. These field visits were actively supported by USAID, Africa Lead, CORAF/WECARD and NARS institutions visited. Details of the itineraries of the entire team and sub-teams are in **Annex D**. Key persons and institutions that facilitated the in-country travels and meetings are listed in **Annex E**. A summary of the Work Plan formulated to guide the Evaluation is in **Annex F.**

2.2 LIMITATIONS– METHODS, FINDINGS, INTERPRETATION, CONCLUSIONS

A few limitations may have affected the validity of this evaluation arising from methods of selecting samples for beneficiaries for interview, interpreting the findings made, and assumptions made in choosing data analyses methods and drawing of inferences for the wider population of beneficiaries. These limitations and their potential impacts on the conclusions drawn from the evaluation processes and results are briefly discussed below:

The beneficiaries interviewed during the evaluation and their perspectives may not represent the true views of the population of beneficiaries- The evaluation team in some cases were not able to obtain a comprehensive list of beneficiaries for some projects. In these cases the samples selected by Project Leaders and interviewed were not considered to be random as Project Leaders could have selected more friendly beneficiaries. In some cases where locations were considered too far for team visits interviews of beneficiaries were conducted by NARS personnel to augment those carried out the Evaluation members. However, given the overall large sample size (92) and the fact that some of the interviews were conducted by members of the Evaluation Team, the potential negative impact of this limitation was considered minimal by the Team.

The Evaluation Team was not able to visit all eleven (11) countries which participated in the various projects and Project Coordinators were only provided the Questionnaires- In countries where the Team visited and had face to face discussions with Project Leaders, the Project Leaders provided information on the project implementation, in addition to the information provided on the structured question. Thus, the Team may not have had adequate information on challenges and successes obtained for particular projects in those countries not visited. These countries were three (3) out of eleven (11) or 27%, and the probability that crucial information missing from answers on the questionnaire form received from them was not considered too high to significantly affect trends and patterns observed from the analyses.

The evaluation of the Projects took place some eighteen months after the closure of the Protects – this length of time is considered perhaps longer than ideal when "recall" interviews are used as part of the evaluation. The evaluation design proposed for the evaluation requires recollection of events and data/information from the persons being interviewed (Program and Project Leaders, Institutional heads and beneficiaries). It is possible that some of the events and figures provided may have"recall" problems, and may not be accurate in some instances. However, the Evaluation Team does not see the possibility of poor recall a serious problem as Questionnaires were designed and distributed among Program and Project Leaders two to three (2-3) weeks ahead of time to fill in their responses, and therefore offering them opportunities to fill in figures and facts which otherwise may have been difficult to recall from memory. In the case of beneficiaries, questions requiring recalling of quantitative

data were kept to a minimum, and where such information was required, ranges, rather than specific data or figure were requested. Thus, while some recall problems were still possible, they were considered to be minimal, and would not have much impact on the analyses and interpretation of the results.

3.0 FINDINGS

This section represents the perspectives of consultants supported by key informant interview data, focus group feedback, and desktop literature reviews. Six completed questionnaires were received from the two CORAF Program Managers (three from SPS and three from Biotechnology Program Manager) covering all the six SPS projects, 24 Regional and Country Project Coordinators in 10 of the 11 countries and 92 Project Beneficiaries from seven countries. The distribution of questionnaires administered by SPS Projects is in Table 3 below.

Table 3: Distribution of Completed Questionnaires Received from Respondents

SPS Project Name Identification	CORAF Program Leaders	NARS Project Leaders/Coordinators	Project Beneficiaries	Total completed Questionnaires	Remarks
Integrated *Striga* control in sorghum.	1	1 Mali 1 Senegal 1 BF	20	24	
Improving the yam mini-sett technology.	1	1 Ghana + 1 Nigeria + 1 Benin+Togo	24	29	
Agro-processing in rice, cassava, sorghum/millet products.	1	1 Benin + 1 Senegal + 1 Mali + 1 BF + 1 Togo + 2 Nigeria	26	34	
Bt-cowpea research.	1	1 Mali + 1 BF	0	3	Interventi on did not reach level of end users
Improving cassava planting materials	1	1 Ghana + 1 Liberia + 1 Sierra Leone + 1 Ivory Coast + 1 Benin	9	15	
Research on rice resistant to the Rice Yellow Mottle Virus (RYMV).	1	1 Nigeria + 1 BF + 1 Ivory Coast + 1 Sierra Leone	13	18	
Total	**6**	**24**	**92**	**122**	

It was considered by the Evaluation Team that some of the five Evaluation Questions (EQ) were fairly linked to each other. For example EQ 1A –What are the documented achievements against the expected list of program results and expectations? – was considered closely linked it EQ 2- What adjustments, corrective actions, and/or areas for improvement are needed to ensure progress towards

achieving expected results in similar future programs? Similarly, EQ 1B- What factors (both internal and external to the program) helped or hindered the achievement of the program's expected outcomes as detailed in the cooperative agreement? - was considered closely linked with EQ 2. It was further considered that there was an added value to exploit these linkages in discussions surrounding the linked EQs through a thematic or issue-based discussions approach. Therefore, the Team considered an option that allows the findings to be presented around five key issues gathered from Evaluation Questions (EQ) and associated cross-cutting issues in line with good practice as described by Imas and Rist (2009). Discussing findings around issues or themes allow for linkages and interactions among two or more evaluation questions to be captured. The issues raised were those related to: **1**) Institutional support and capacity building, **2)** Supplementary program support (SPS) projects achievements, **3)** Integration of institutional support into SPS projects, **4)** Best practices in project implementation, partnerships and stakeholders' involvement, and **5)** Success stories and up-scaling results.

The evaluation questions covered in each of the five issues, and the type of Questionnaire Instrument (QI) from which answers provided contributed to the identification of findings and for discussion of the issues are in Table 4 below.

Table 4: Linkages among Finding Issues, Evaluation Questions and Type of Questionnaire Instruments Used

Finding Issue/Theme	Evaluation Questions covered or Responded to	Type of Questionnaire Instruments contributing to the identification of Findings
1. Institutional Support and Capacity building	**1A**-Project Achievements **1B** – Internal & External Factors affecting Outcomes **2**- Adjustments, corrective actions for improvement	CORAF Program Managers NARS Project Coordinators End-User Beneficiaries NARS Program Director /Director General
2. Supplementary Program Support (SPS/GFSRI) & FtF-Projects achievements	**1A**-Project Achievements **1B** – Internal & External Factors affecting Outcomes **2**- Adjustment, corrective actions for improvement **3**-Opportunities to enhance project implementation **4**-Cross-Cutting Issues addressed by Project Interventions	CORAF Program Managers NARS Project Coordinators End-User Beneficiaries NARS Program Director /Director General
3. Integration of Institutional Support into SPS projects	**1B** – Internal & External Factors affecting Outcomes **2**- Adjustment, corrective actions for improvement **5**- Extent of Institutional Support integrated into SPS	CORAF Program Managers NARS Project Coordinators End-User Beneficiaries NARS Program Director /Director General
4. Best practices in project implementation, partnerships and stakeholders' involvement	**1A**-Project Achievements **3**-Opportunities to enhance project implementation **4**-Cross-Cutting Issues addressed by Project Interventions **5**- Extent of Institutional Support integrated into SPS	CORAF Program Managers NARS Project Coordinator End-User Beneficiaries NARS Program Director /Director General
5. Success stories and up-scaling results	**1A**-Project Achievements **4**-Cross-Cutting Issues addressed by Project Interventions	CORAF Program Managers NARS Project Coordinators End-User Beneficiaries

Key Findings

Key Findings are presented around five issues/themes identified during the review of the objectives and background of the projects and the justification offered by CORAF/WECARD in making the request for funding from USAID/WA, namely **1)** Institutional support and capacity building, **2**) Supplementary program support (SPS) projects achievements, **3**) Integration of institutional support into SPS projects **,** **4**) Best practices in project implementation and partnerships and stakeholders' involvement, and **5**) Success stories and up-scaling results.

Institutional support and capacity building within CORAF/WCARD and NARS (Responding to Evaluation Questions Number 1A, 1B and 2)

- Overall, there was a wide acknowledgement that the USAID-funded IFSP contributed to institutional strengthening at both CORAF and NARS levels and that the project focus was relevant as judged by 92 end-user beneficiaries interviewed, of which, 93% reported that they would be "very interested" in participating in a similar project in the future (**Appendix 5**). At the CORAF/WECARD level the two Program Managers supported by the IFSP funding strengthened CORAF/WECARD Secretariat through resource mobilization efforts that brought in an estimated $10 million project funds as at June 2011 (CORAF/WECARD Assessment Report, 2011). These new funds enabled the recruitment of additional staff into CORAF/WECARD programs.

- The CORAF/WECARD Finance and Administration department staff acknowledged that capacities in the department were built and deployed to improve financial management and operations of the department. Similarly, the evaluation team found that under the GFSRI and FtF projects that the staff size (5 paid from FtF funds) was increased which strengthened the team's capacity (to manage programs, finances, knowledge and M&E.

- The scientific, coordinating and advocacy roles played by the Program Managers contributed to leveraging other agricultural and related research and/or development projects in the West Africa region funded by other donors. Examples of those donor-funded initiatives that used resources, outputs and knowledge from the SPS projects were the West Africa Agricultural Productivity (WAAP) and the Yam Improvement for Income and Food Security in West Africa, YIIFSWA, funded by Bill and Melinda Gates Foundation.

- At the countries level, training targets were generally met. In Ghana a total of 274 farmers (12.4% females) were trained in the Minisett technology and another 300 (15% females) trained in the yam vine techniques. The corresponding beneficiaries trained in the Minisett were 1,400 (15.7% females), 485 and 170 (34.7% females) in Nigeria, Togo and Benin. In Nigeria the trained farmers were reported to have trained other farmers, three about 3 fold in number.

- Overhead charges of 2.5% paid to participating NARS was considered too small by most NARS Directors and was reported by some institutions as having had negative impact on project implementation.

- There was high recognition among end user-based Institutions (Associations, Organizations) and NGOs of the capacity strengthening achieved through participation in the SPS Projects. A Union of Cooperatives in Mali, USCPCS, whose members participated in the Striga-Sorghum project credited their successes to capacity strengthening from the project when they celebrated their exceptional results**:** nearly 90% of the members of the USCPCS group were using improved varieties of

sorghum during 2013/14 season, increased in yield of sorghum from 700 kg/ha (local varieties sorghum) to about 2500 kg / ha (improved varieties) and household income multiplied 5 fold between 2009/2010 and the 2013/2014.

Supplementary program support (SPS projects under GFSRI and FtF) achievements (Evaluation Question Number 1A, 1B, 2 , 3 & 4)

- At the time of the evaluation (July/August 2014) the SPS project activities under the GFSRI were mostly implemented whereas projects/activities developed during the second quarter of 2013 (second phase) to reflect the alignment with the USAID FtF initiative (FtF Projects) were largely not implemented on the ground. This was caused by the /lengthy project approval procedures at CORAF and the delay in transferring of project funds to implementing NARS institutions. Only a couple of NARS had received funds for the FtF projects at the time the evaluation team arrived at the institutions. However, at CORAF several IS activities were on-going or had been achieved, including contractual arrangements, coordination of regional activities, institutional and human capacity development, program development, policy analysis, technical capacity in critical areas including gender mainstreaming and environmental safeguard and compliance. For example, the capacity and skills of 92 partner individuals from 33 partner institutions were sharpened in training sessions on program planning and management which also consolidated their understanding of the functional requirements of the FtF **(Annex A.1.C**).

- For the Yam Minisett project where the key targets/indicators set were a) a minimum of 25% increase in area planted with yam seeds produced through the Minisett technique, b) a minimum 5% of yam producers in each country have adopted the yam Minisett technique, c) a minimum 2,000,000 healthy seed yam are produced, and d) a minimum of 200 demonstrations established in the four countries, all by June 2011, much progress was made towards achieving the targets **(Annex A.2**). Evidence gathered during the evaluation showed that the yam Minisett technology was indeed demonstrated widely, in three administrative Regions in Ghana, 13 States in Nigeria, three Regions in Togo and six Districts in Benin. These total produced was 1,211,893 or 60.6% of the target reported by the Program Leader. The short fall mainly occurred in Nigeria (40%) and Ghana (40%).

- Similarly for the Rice – RYMV1 project several AEZs in 6 countries were covered. Key targets were also reached and included: Striga-Sorghum project- 45,000 kg of seeds produced in 2 countries, 16 Contracts signed, and 3 fold yields recorded for improved varieties of sorghum **(Annex 2).**
- Results from the SPS Projects were shown to have been documented in various Reports and in at least six regional and international "peer-reviewed" journals.

- A high level enthusiasm was shown by beneficiaries as a reported *77-95% of beneficiary NARS rated SPS Projects highly relevant* and 62-90% of the 92 end-user beneficiaries interviewed reported having received benefits from project participation, in terms of improvement in food security, cash income, better nutrition at household levels, ability to pay school and hospital fees. About 55%, 41%, 41%, 52% and 50% of end-user beneficiaries reported to have obtained double or nearly double (80-100%) or above-average improvement (60-80%) with respect to food security, cash income, household nutrition, ability to pay school fees and ability to pay hospital fees, respectively and were attributed to the participation in the projects (**Annex B**).

- It was reported by both CORAF/WECARD Program Leaders and Country Project Coordinators that some targets were not realistically set and hence not met during implementation period. Information to this effect was found in survey returns from CORAF/WECARD Program and NARS

Project Coordinators. Among the targets missed for some of the projects were Post – Harvest: about 20% of targets for training was missed. Striga-Sorghum- targets were missed by 30% (**Appendix 7**).

- The planning tools used by CORAF/WECARD and NARS, and mechanisms used in regional meetings held in NARS, collaboration with CGIAR Centres and approaches used to create and nurturing partnerships **(Annex N**) were considered to have been effective, and further deepening of the methods could present unique opportunities that can enhance the implementation and sustainability of regional and sub-regional programs.

Integration of institutional support activities into SPS projects (Evaluation Question Number 1B, 2 & 5)

- Substantial capacity building and strengthening capacities were integrated into the SPS projects. Among physical equipment purchased or installed were laboratory equipment, screen houses and seed stores **(Annex G)** and office equipment such as computers and heavy duty printers and photo copiers. Other equipment and infrastructure installed by the projects were 16 units of post-harvest processing machines, five screen houses and benches. The Evaluation Team learned at first-hand information on capacity built in Project Leaders, their cohorts and other staff at NARS through various workshops and training sessions organized under the SPS Projects. The capacitated NARS Project Coordinators contributed from 40-90% of their time on the SPS Projects under their management. The research activities under SPS Projects were considered integral part of the institutions' research and development agenda, therefore the outputs from the SPS Projects, such as publications were listed in institutional publication list.

- A wide range of capacity building including training activities were incorporated into the SPS project implementation (**Annex A.2**). Among them, 210 seed producers, 250 Farmers in FFS, 121 private sector actors trained by the Striga-Sorghum project, 2,629 farmers trained by the Yam Minisett project, 500 groups of beneficiaries trained (80% Females) by the Post-Harvest Project. Similarly the Bt Cowpea had 90 persons trained in 3 countries, another 16 Researchers trained.

Best practices in project implementation, partnerships and stakeholders' involvement (Evaluation Question Number 1A, 3 , 4&5)

- According to CORAF/WECARD senior management team, Innovation Platforms (IPs) represented major vehicles for developing best practices and building lasting effective partnerships. According to CORAF/WECARD it succeeded in coordinating and supporting the establishment of about 175 IPs. The Plantain Platform in Cameroon was particularly described as successful **(Annex K).** However, the Evaluation Team interviewed nearly 100 end user beneficiaries to share their experiences on their involvement in the SPS projects during and after implementation. Among the questions asked were their knowledge and involvement in IPs. Only about 5% of respondents recalled having heard or participated in IPs associated with the SPS projects. A review of responses from 24 Coordinators also showed that IPs have not been established.

- Evidence was provided that showed strong and diverse Partnerships at CORAF and NARS, and concrete evidence of usage of partnerships in project implementation, as demonstrated in survey records **(Annex N**). Approximately 50, 40, 15, 5, 35 and 15 partnerships were developed in the framework of the Yam Minisett, Post-harvest, Striga-Sorghum, Bt Cowpea, Cassava tissue culture and Rice-RYMV1 projects, respectively.

- The partnerships with CGIAR centers (AfricaRice, IITA, and ICRISAT) and with AATF were listed among critical success factors. These partnerships and others engendered within countries created opportunities for enhanced effective implementation and sustainability at regional level.

Success stories and up-scaling results (Evaluation Question Number 1A, 4)

- At all stages in the course of the evaluation numerous extraordinary achievements in project planning, implementation and follow-up actions were found already documented or were brought to the attention to the Evaluation Team. One of them is the experience of evangelist Thomas Anioji from Enugu State in Nigeria. Evangelist Thomas Anioji is *the world famous yam farmer from Isu-Awaa in Enugu State of Nigeria whose participation and exceptional performance in the USAID-funded CORAF-NRCRI Project on yam Minisett attracted a joint CNN International-BBC interview and a documentary report on the two Networks (*his full story is Section 3.5 (Box Story).

- Several Success stories provided by CORAF, NARS and others observed by Evaluation Team in the field are compiled and placed in **Annex J**. Inadequate publicizing of success stories and lack of analysis of achievements to identify success factors was noted by the Evaluation Team as opportunities missed for up scaling of Results of projects.

- Project implementation constraints and challenges, especially delays in approved funds to field teams limited the scope and numbers of potential activities that could have resulted in more outcomes that could be described as success.

More detailed analyses of key findings are presented below.

3.1 INSTITUTIONAL SUPPORT AND CAPACITY BUILDING WITHIN CORAF/WECARD AND COLLABORATING NARS

The Institutional Support and Food Security Program was designed primarily to provide a five-year Institutional Support (IS) for CORAF/WECARD in terms of strengthening of the Executive Secretariat and its constituent units, namely, Financial and Human Resources Management, Resources Mobilization, Coordination of the National Agricultural Research Systems (NARS), Monitoring and Evaluation, Communication and Knowledge Management. The USAID support was meant first, to strengthen the institutional capacity of CORAF/WECARD as an organization and second, to strengthen the institutional and human capacity of its relevant key actors in the staple crops and biotechnology sub-sectors to be more productive in their various agricultural production and marketing. That would include the mobilization of relevant technologies to reach farmers.

The NARS participating in the six projects covered by the SPS were also expected to indirectly benefit from scientific inputs from the two scientific Program Leaders at CORAF/WECARD supported from the IS funding, which totaled USD 2.75 million (Table 5), through their direct support, coordination and participation in the SPS projects implemented at the NARS. The USD 2.75 million, five-year institutional support package was to remain within the organization (CORAF/WECARD) mainly to finance two staff in the focus areas of staple crops and biotechnology and biosafety, and a third staff assigned to support the Executive Director as a Senior Technical Advisor. The breakdown of the IS support is in Table 6..

Table 5: Institutional and Supplementary Support Packages

Description of Support	Duration	Funding	Additional Description
Institutional support	5 years	2.75 million USD	Supporting three key staff
Supplementary support	2 years	4.25 million USD	Supporting six commissioned projects

Source: West Africa Institutional Assessment CORAF/WECARD, June 2011

The 2-year Supplementary Program Support (SPS) funding totaling USD 4.25 million was mainly targeted at the NARS parcipating in the six project. Table 6 also provides a breakdown of the two-year supplementary support package totaling $4.25 million. Approximately 94% of the SPS fund directly supported the projects, wheras approximately 2.34% of the fund went to the participating NARS as direct overhead cost.

Table 6: Breakdown of Institutional and Supplementary Support Packages

Support Package	Five-Year Institutional Package	Two-Year Supplementary Package
Personnel	$1,296,000	$126,040
Fringe	557,357	8,822
Travel	230,021	-
Equipment	13,559	33,333
Supplies	34,758	-
Sub-Awards	35,000	3,982,249*
Other Direct Costs	583,305	99,556
Total	**$2,750,000**	**$4,250,000**

Financial records provided by CORAF/WECARD showed that as of June 30, 2014 an amount of 916, 913,931 FCFA **(90%)** of the IFSP had been utilized. For the SPS Projects the total amounts transferred to to the participating NARS institutions and the percentage of the amounts of which justification had been provided by the recipient institutions by 30th September, 2013 are in **Table 7.** For the IFSP Institutional Support to CORAF/WECARD an amount of 2 ,592 852 383 FCFA (US$5,458,637) had been received as of 6/30/2014 of which 2 545 886 108 FCFA (US$5,359,760 had been utilized by 6/30/2014. The expenditure constituted 98.1% of the amount received **(Table 8).**

Table 7: Amounts transferred to NARS Participating in SPS Projects as of 9/30/2013

SPS Project	Total amount transferred to NARS FCFA	Total amount justified by NARS FCFA	Approximate USD+ equivalent of amount transferred $	Approximmate USD+ equivalent of amount justified by NARS $	Percent of transferred amounts justified by NARS
Bt Cowpea	45 170 322	43 555 613	100,378	96,790	96
In-vitro tissue on Cassava	160 959 155	137 900 220	357,687	306,445	86
Rice –RYMV1	131 772 729	96 162 665	292,838	213,695	73
Yam Minisett	201 578 912	178051897	447,953	395,671	88
Striga Sorghum	156 825 900	156539688	348,502	347,866	100
Post-Harvest	323 564 890	304703848	719,033	677,120	94
Total	**1,019,871,908**	**916,913,931**	**2,266,391**	**2,037,589**	**90**

+ An average Exchange Rate of $1=FCFA 450 was used in deriving the USD equivalents of transfers by Evaluation Team

Table 8: Amounts transferred to CORAF/WECARD for Institutional Support and Expenditure by Categories as of June 30, 2014

Category	Cumulative Expenditure as of 6/30/2014 FCFA	Total amount received as of 6/30/2014 FCFA	Cumulative Expenses as of 6/30/2014 $	Total amount received from USAID as of 6/30/2014 $	Balance As of 6/30/2014
Personnel Cost	45 170 322	43 555 613			
Frine Benefits	160 959 155	137 900 220			
Equipment	131 772 729	96 162 665			
Supplies	201 578 912	178 051 897			
Sub-Awards	156 825 900	156 539 688			
Other Direct Costs	323 564 890	304 703 848			
Total	**2 545 886 108**	**2 592 852 383**	**5 359 760**	**5 458 637**	**98 876**

The performance of the three key staff supported at CORAF/WECARD under the IS component of the IFSP was reviewed in 2011 by USAID as part of the Assessment of CORAF/WECARD, when the program implementation was about mid-way of its total duration. The USAID Assessment found both the Staple Crops Program and Biotechnology and Biosafety Program Managers to have generally peformed credibly, especially given their contributions towards resource mobilization (West Africa Institutional Assessment, CORAF/WECARD, 2011). The Assessment, after reviewing the available M&E data, and after verifying the job performances of the managers against their original job descriptions within the ISFP Cooperative Agreement concluded that both the Staple Crop and the Biotechnology and Biosafety Program deliverables were on track. The same Assessment found the performance of the third key position supported, the Special Technical Advisor to the Executive Director was not successful and had been eliminated at the time of the assessment in June 2011.

The current evaluation sought to further evaluate the performance of the two Program Managers handling the SPS projects by directly asking them a wide range of questions relating to their roles in project launching, coordination, reporting, synthesizing of reports and publication of reports and how these roles contributed to the enhancement of the performance of the regional agricultural research and development systems, and how those outcomes increased the visibility of CORAF/WECARD. Participating NARS Project Leaders were also asked to answer questions related to CORAF/WECARD Program Leaders' engagement in project planning, implementation and dissemination of results of projects, and the extent to which CORAF/WECARD brought experiences, lessons learned and other results to bear on the NARS. The overall evaluation points to high level performance by the two Program Leaders. Approximately 70% of the NARS Project Leaders surveyed rated the two Program Leaders high in four categories of project planning and coordination related performance measures (**Appendix 5**).

Overall, there was a wide acknowledgement that USAID-funded IFSP contributed to institutional strengthening at both CORAF and NARS levels and that the project focus was relevant as judged by beneficiaries (**Appendix 5**). At CORAF/WECARD level the two Program Managers supported by the IFSP funding strengthed CORAF/WECARD Secretariat through resource mobilization efforts that brought in an estimated $10 million project funds as at June 2011 (CORAF/WECARD Assessment Report, 2011). These new funds enabled the recruitment of additional staff in CORAF/WECARD.

The scientific, coordinating and advocacy roles played by the Program Managers contributed to leveraging other agricultural and related research and/or development projects in the West Africa region funded by other donors. Examples of those donor-funded initiatives that used resources, outputs and knowledge from the SPS projects brought to the attention of the Evaluation Team included the West AfricaAgricultural Productivity (WAAP) project's component aimed at upscaling the Yam Minisett and the Cassava tissue culture technologies. These technologies had been promoted by the USAID-funded SPS projects. For example, in the case of the tissue culture cassava project, two LOAs had already been developed with WAAP at the time of the evaluation. Evidence of integration of USAID-funded CORAF-NARS project's products and knowledge into the WAAP initiatives on root and tubers in West Africa was presented to the Evaluation Team during the visit to Ghana's Crop Research Institute (CRI) in Kumasi to the Evaluation Team.

A large initiative, the Yam Improvement for Income and Food Security in West Africa, YIIFSWA, funded by Bill and Melinda Gates Foundation had tapped into the resuts and opportunities created by the SPS projects under the GFSRI. The integration of farmers who participated in the USAID-funded SPS projects into YIIFSWA, the adoption of the yam minisett and yam vine cutting technologies and techniques developed or perfected in the SPS by YIIFSWA were reported during interviews with SPS project leaders in Ghana and Nigeria. Simarly, the USA Feed the Future (FtF) initiative on staple crops has capitalized on the findings and opportunities created by the implementation of the SPS projects. In

Nigeria the National Cereal Research Institute (NCRI) reported receiving funds from the FtF program to build on SPS project results to build capacity in seed production, Natural Resources Management, Post Harvest and Innovative Platforms. Even the Bt Cowpea projected which was terminated before the initially set completion date was reported to have contributed greatly to the enhancement of capacity of Biosafety Regulators in three additional countries, bringing the total from three to six. It was made known to the Evaluation Team by CORAF/WECARD that a new biosafety proposal (OBAMA) had been proposed to the FtF and under consideration for funding by USAID. These observations in sum demonstrates a substantial strengthening of CORAF/WECARD as a regional institution and several NARS in the Region.

The team also found evidence showing that several departments within the CORAF/WECARD Executive Secretariat benefitied from the project . Some of the key function areas that were strengthened include:

- Monitoring and Evaluation-- a robust M&E system was developed for a better monitoring and evaluation of the FTF projects, a system that benefited greatly from the Data Quality Assessment missions from the USAID/WA,

- Performance Management Plan was developed to plan, manage, track and document progress on performance of the CORAF/WECARD FtF, and

- A web-based knowledge management system, expected on completion, to house data information on the six projects under the FTF and facilitate reporting to stakeholders including the USAID/WA regional mission was established.

- With respect to financial management, there was a general acknowledgement from the CORAF/WECARD Administration and Finance Department staff that capacities in the department were built and deployed for improved financial management and operations of the department. Similarly,

- it was established that CORAF/WECARD human resource was strengthened under the GFSRI and FtF as demonstrated by increased staff numbers (5 paid from FtF funds) which improved their capacity to manage programs, finances, knowledge and M&E. Other achievements realized at the various departments of the CORAF Executive Secretariat from the IS support during the GFSRI and FtF phases of the program are listed in **Annex A.1. C**.

Evidence of widespread recognition among user-based institutions such as farmer and processor associations and NGOs of the capacity strengthening achieved through participation of the SPS projects was also presented to the Evaluation during field visits. For example, the URAPD group (Union Régionale des Associations Paysannes de Doudel) in Senegal and the USCPCS (Union des Sociétés Coopératives des Producteurs de Céréales Sèches de MARKA COUNGOU in Mali, with a combined membership of over 2000, of which about 200 participated in the Striga-resistant Sorghum project openly acknowledged the strengthening of capacities in their associations that has enabled them to run their affairs better, and translated into significant improvements in sorgum yields.

The ten URAPD groups which members were trained under the striga-sorghum project subsequently trained other sorghum producers in their association. Similarly, two mid-level researchers trained by the project leader for striga-sorghum in Mali had also trained local facilitators and advisors from other donor-funded projects in Mali. These types of "chain reaction" in capacity building whereby SPS projects-led trainining programs of project beneficiaries triggered more training in others were found in

several countries/projects visited by the Evaluation Team. Among the projects where such information was presented were the Yam minisett project in Nigeria, Post-harvest rice processing in Senegal, and cassava processing in Nigeria. Achievements resulting from SPS project activities brought to the attention of the Evaluation which were considered extraordinary were recorded as "success" stories and briefly discussed in Section 3.5 in this Report. Selected documented success stories are compiled in **Annex J** to this Report.

Whereas the overall impact of the IFSP support was largely positive on CORAF/WECARD, participating NARS at country level and farmer/processor/marketer-based institutions and NGOs, a few shortcomings and constraints were reported by SPS project leaders at NARS level. Among the key ones were:

Lack of information on the part of some project leaders on availability of funds within the approved budget to undertake institutional capacity building and strengpthening at the concerned NARS. In such institutions no material, equipment or infrastructural support was provided. This was a source of palpable frustration among those project leaders concerned and their directors. For example no equipment was purchased for IER-CRRA Post-Harvest Project in Mali (see **Annex G**). The number of cases were few but appeared to mainly associated with situations where Regional Coordinators were assigned to oversee projects outside of their own countries. Delays of transfers of funds to NARS through institutions where Regional Coordinators were based seemed to have added to the complaints from Project Leaders at affected NARS.

Overhead charges of 2.5% paid to SPS participating NARS were considered too small by most NARS. Some NARS Directors, while acknowledging the capacity strengthening nature of the SPS projects, felt that CORAF/WECARD, by implication USAID was not fair in allocating only 2.5% of the project budget to the overhead charge line. This level of dissatisfaction appears to had been aggrevated by the fact that NARS Directors were oblidged to pre-finance some project activities in response erratic and delayed transfers of funds from CORAF/WECARD or Regional Coordinators' institutions. It was mentioned to the Evaluation Team by NARS Directors and Project Leaders that the situations described in the preceding paragraphs negatively impacted project implementation and possibly limited the levels of ahievements.

In the wider definition of "institution" which considers institutions as being made up of formal structures and constraints (rules, laws, constitutions) and informal constraints (norms of behavior, conventions, etc.) and their enforcement characteristics (Colding *et al*., 2003; Ostrom, 1992) the private sector's, (as a set of institutions), participation in SPS projects was considered important, not only in strengthening project beneficiary institutions, but also serving as entry points for private sector business development of relevant products and services along the various value chains covered by the various projects. Specifically, there was some expectation that the approaches used by the SPS will bring on-board private sector players who might bring added value to the value chains and possibly discover viable business opportunities.

Although the Evaluation Team was briefed of on instances of private sector participation and involvement in some of the projects, and in few cases leading to the development of private sector entrepreneurships, the overall view of the Evaluation Team was that private sector participation was generally low. CORAF/WECARD Program Leaders acknowledge this finding but counteracts with it with the fact that the focus of the projects was to find emergency solutions to the prevailing food crises that started in 2008 and protracted further. Farm family access to food and agro-processing to reduce losses were the immediate focus. However, it is the view of the Evaluation Team that private sector participation in spearheading the process of mitigating the crises and finding solutions were viable options for institutionalizing the practice of public-private-partnerships in IAR4D.

3.2 SUPPLEMENTARY PROGRAM SUPPORT (SPS) UNDER GFSRI AND FtF - PROJECTS ACHIEVEMENTS

The six Supplementary Program Support (SPS) projects were designed to respond to the growing food insecurity among human populations that engulfed most countries in the West African region, starting in 2008 on top of the detelioration in food productivity and production that had characterized the region for decades. Selected staple crops were targeted based on the observation that staple foods are the main crops affected by the high market prices that contributed to the food insecurity occurring at the time. Biotechnology-related projects were also considered based on the field evidence that biotechnology application has the potential to supplement more conventional agricultural practices and significantly contribute to agricultural productivity increase in developing countries. The supplemental funds used to support this program came from the Global Food Security Response Initiative (GFSRI) that focused on staple foods. The three staple crops projects and the three biotechnology-related projects selected for SPS funding formed integral parts of existing CORAF/WECARD Staple Crop Program and Biotechnology and Biosafety Program, respectively (Cooperative Agreement No. **624-A-00-09-00037-00; also see Table 1)**.

The main Objective of the CORAF/WECARD Staple Ccrops Program is to improve staple crops productivity at all levels through the promotion of appropriate technologies and to create a conducive environment for cooperation between key staple crops stakeholders. The main Objective of the CORAF/WECARD Biotechnology and Biosafety Program is to promote the adoption of agricultural biotechnology in West and Central Africa. The SPS projects were implemented within these CORAF/WECARD frameworks and corresponding research and extension areas in the participating NARS. The key achievements of the SPS projects under the GFSRI as gathered from questionnaire interviews with CORAF/WECARD Program Leaders, Regional and Country Project Coordinators and end user beneficiaries are summarized in **Annex A.2.** Highlights of the findings on all the six SPS projects under the GFSRI are presented below.

The Yam minisett project and the Bt Cowpea project achievements are presented below as examples to illustrate progress and challenges.The achievements and callenges for the remaining four SPS rest of the Projects are in **Annex A.1.A.** Issues related to the development and implementation of the projects/activities under the FtF initiatives are addressed in detail in **Annex A.1.B.** Lengthy and/or delayed project development and review processes at CORAF/WECARD which delayed the transfer of project funds to collaborating NARS institutions were cited as major reasons for not starting implementation on-the-ground of the FtF projects until July/August 2014.

3.2.1 Summary Discussion of Issues of Project Implementation and Observations under GFSRI from Field Interviews

The information reported in sections 3.2 (i) and (ii) and **Annex A.1.A** below presents a significant evidence of good project implementation and substantial results delivery for all the six SPS projects visited. In most cases the documented achievements by CORAF Program Managers were corroborated by information provided by Project Leaders interviewed. There were some indications that some level of collaboration between SPS Projects occurred in the field. Examples of such collaboration between projects observed was the one between the rice (RYMV1) and the rice Post Harvest projects at the NRCR, Nigerial. The two Project Coordinators served on the Steering Committees of the two projects. In Senegal the millet/sorghum project had arrangements with the Striga-Sorghum project whereby the expected increase in yields of sorghum were to be sold to women processing sorghum as part of the Post-harvest project.

Data received from 24 national Project Coordinators painted pictures of NARS institutions' research programs becoming more alive in research planning and project implementation generally due to the catalytic roles of the SPS projects. For example, project planning sessions at their institutions that brought together reserachers from other countries served as model for institutional planning. Similarly, SPS project M&E visits by Regional Coordinators and CORAF-based staff had positive impact on processes used within the NARS (Example given by DG of IER and Senior Management Team). Equipment and infrastructure acquired under the SPS projects such as screen houses and seed stores continue to be used at the NARS (**Annex G**). Training provided to NARS staff who participated in SPS projects, and the methods used have strengthed these staff to be able to train others within the institutions and outside partner institutions. For example, three middle level IER-Sotuba (Mali) trained on the Striga-sorghum project went on to train staff of other donor-funded projects. Evidence were presented to the Evaluation Team that showed SPS project teams contributed to developing new projects and obtaining funding for their institutions. For example, the Post-harvest project at NRCRI-Baddegi (Nigeria) played a significant role in the development of a 3-year national rice value chain project funded by AGRA to the tune of US$ 1.0 million.

The evaluation found strong enthusiasm among project beneficiaries interviewed. Beneficiaries readily and freely expressed their appreciation for the project and impacts on them. An example was beneficiaries appreciation of multi benefits associated with new resistant varieties of Sorghum in Senegal where the positive environmental impact of the resistant varieties on weed control and on other crops grown in association, and nutritional value to humans and livestock were acknowledged. Overall, about 90% of the nearly 100 beneficiaries interviewed reported that they were "very interested" to see similar SPS projects undertaken in their areas (**Annex B**). This resounding appreciation and positive sentiments were expressed by beneficiaries notwithsatanding some problems with project implementation which they became aware of, especially with fund transfer problems to participating NARS.

Problems especially with the Bt Cowpea project that prevented the project activities to timely reaching end user level in the countries where the project was implemented. The difficulties the project encountered with respect to passing of appropriate enabling laws and receiving authorizations for confined field trials, and the reported earlier closure of project by donor, USAID, eventually led to many targets not met, and expected results not realized. In general, for all the SPS projects where targets were missed, in terms of numbers and timeliness, there was a general concensus among Project Coordinators that some of the targets not realistically set. Some NARS also reported that some targets were re-set in the middle of the implantation of the projects. Few of the NARS complained of exclusion of NARS M&E systems in contributing to the development of indicators and setting of targets.

The evaluation found some level of commitment among NARS project scientists to publish results in peer reviewed journals. At least six such publications were brought to the attention of the Evaluation Team. Most of the documented results were however in internal reports at CORAF and NARS level. These published results and documents brought some level of "visibility" among peers to the SPS projects. However, visibility of projects at the field sites was considered poor by the Evaluation Team. Only in a couple of sites visited did the team see sign boards mounted to show project name, purpose, implementers and donor.

Although the SPS were closed at the time of visits, there was still expectation that some sign boards would still be standing. Some donor-funded projects that had closed much earlier still had standing sign boards. An example from Senegal was a USDA project carried out in a remote village of Senchu Mosana, some 300 km away from Dakar, where the Striga-Sorghum was also implemented. In contrast in Pont Gendarme near Saint Louise (196 km from Dakar), an apparent successfully implemented rice Post-Harvest project had a worst scenario of poor visibility as other donor projects who joined and

collaborated with the project later in its implementation eventually raised a very visible sign board but excluded the implementation institutions (ITA and CORAF) and the donor, USAID, from the insignia/symbols on the said sign board. There were some insinuations that there was no budget allocated for such publicity.

With respect to the ease of getting information about project achievements in terms of targets met and other related data generated and documents backing the existence of such achiements and claims made, the Evaluation Team observed a less than desirable data/results documentation at CORAF level. This presumably lead to the delayed responses to the information required in the questionnaire from Program Leaders. In this respect some of the participating NARS had easier accessibility to their data, given the timely submission of their questionnaires.

3.2.2 Summary Results on the Yam Minisett and Bt Cowpea Project to Illustrate Progress and Challenges from Implementation of SPS projects under GFSRI

(i) Improving the yam minisett technology - The Yam minisett technology project, with a formal title "*Promotion of seed yam production in Ghana, Nigeria, Togo and Benin, using the Yam Minisett Technology*" was designed to be implemented in the four countries named in the title.The general Objective of the project was *"to improve and promote productivity enhancement of yam technologies and innovations adapted to the needs of target groups*". The specific Objective was "to promote yam supply through the yam minisett technology to increase yam production in Ghana, Togo, Benin and Nigeria". The Evaluation Team was able to visit three of the countries that implemented the project, namely, Ghana, Nigeria and Benin. Togo was not included in the eight selected countries but the country Coordinator of the project did respond to the Questionnaire sent to him by e-mail. The summary information on the project in **Annex A.3** was based on Questionnaires administered to one Program Leader at CORAF, four NARS Project Coordinators and 24 project beneficiaries. Annex A.1.A Contains Similar Summaries for the Other four Projects.

The Evaluation probed into the extent to which the yam minisett technology was promoted in the target countries, demonstrated among the farming communities in the countries, and quantity and quality of training provided to stakeholders and beneficiaries on the yam minisette and other connected technologies, such as the yam vine cuttings. Extensive figures and narratives were provided by both the CORAF Program Manager and the four Country Project Coordinators to show that the Project achieved its objectives and met most of the targets set at the onset of the project activities. Among the key targets/indicators set were a) a minimum of 25% increase in area planted with yam seeds produced through the minisett technique by 30th June 2011, b) a minimum 5% of yam producers in each country have adopted the yam minisett technique by 30th June 2011 and c) a minimum 2,000,000 healthy seed yam are produced, (of which 1,000,000 are produced in Nigeria, 200,000 in Ghana, 150,000 each in Benin and Togo) by June 30, 2011, and d) a minimum of 200 demonstrations established in the four countries by June 30, 2011.

Evidence gathered during the evaluation showed that the yam minisett technology was indeed demonstrated widely, in three administrative Regions in Ghana, 13 States in Nigeria, three Regions in Togo and six Districts in Benin. The respective seed yams (minisetts) produced in the four countries were 120,000, 600,000, 224,124 and 267,769. These totaled 1,211,893 or 60.6% of the target reported by the Program Leader. The short fall mainly occurred in Nigeria (40%) and Ghana (40%). There was discrepancy in the Ghana target as Country Leader had recorded the target as 100,000 rather than 200,000.

Training targets were also generally met. In Ghana a total of 274 farmers (12.4% females) were trained in the minisett technology and another 300 (15% females) trained in the yam vine techniques. The corresponding beneficiaries trained in the minisett were 1,400 (15.7 females), 485 and 170 (34.7% females) in Nigeria, Togo and Benin. In Nigeria the trained farmers were reported to have trained about other farmers, three times (3X) in number. This plausibility of this reported observation can be linked with statement made by one Chief Tola Adepomola, a project participant in Eastern Nigeria, who received training in yam minisett technology and ended up training other farmers. Evangilist Thomas Anioji of Enugu State, trained by the Project, not only trained other farmers informal, but also provided formal practical lessons on yam minisett at a regional course organized by IITA in Abuja (See Box Story in Section 3.5).

Institutional strengthening capacities achieved by the Project in participating NARS include a wide range of laboratory equipment and materials, farm equipment including irrigation facilities and storage units (**Annex G**) are further discussed in Section 3.3- Integration of Institutional Support. A notewhorthy institutional and human capacity strengthening was the further development of the minisett and the yam vine technologies through which post-graduate students in Nigeria, Togo and Benin acquired higher academic degrees and experiences in their research work. Several student theses were produced from such activities and are included in the SPS publication list in **Annex H**.

National Project Coordinators reported having been capacitated through coordinating the research activities and training of many beneficiaries. At least two scientific publications in top notch peer reviewed journals were published, "*Bright Owusu Asante, Emmanuel Otoo, Alexander Nana Wiredu, Patricia Acheampong,Jonas Osei-Adu* and *Benedicta Nsiah-Frimpong* (2011)". Willingness to adopt the vine multiplication technique in seed yam production in the forest savanna transition agro-ecological zone, Ghana. *Journal of Development and Agricultural Economics* Vol. 3(16), pp. 710-719, 26 December, 2011. Osei K., Otoo E., Asiedu E., Asiedu R., Danso Y., Adomako J., Appiah-Danquah, P (2012). Reaction of Dioscorea alata clones to plant parasitic nematodes infection, International Journal of Research in BioSciences; Vol. 2 Issue 3, pp. (60-65), July 2013, Available online at http://www.ijrbs.in ISSN 2319-2844.

The wide circulation of Journals that published these articles, especially the internet-based journals will contribute to a wider dissemination of results and lessons learnt on this SPS Project. Dissemination of project results within the countries were achieved through several avenuues, including Farmer Field Schools, demonstrations, field days, radio and television programs, news paper articles and fact sheets. The field demonstrations and publication of results, including those in divulgation articles contributed to a wider and larger publicization of the Project. For an example, a newspaper article written in a local newspaper in Nigeria on yam minisett was reported to have have drawing the attention of CNN International and BBC World Service Networks to seek interviews with yam farmer at the center of the story (See Box Story in Section 3.5).

External and internal factors that were deemed to have helped in the achievements were listed as the existence of proven technology (minisett) and preceding national projects on yams (e.g. the Root and Tuber Improvement Project, RTIMP in Ghana) meant that stakeholders were familiar with the concepts and approaches and therefore were receptive and eager to engage in the Project, existence of a Yam Program at the CRI and NRCRI in Nigeria also made yam projects visible to stakeholders. Strong commitments by the National institutions, including central Government and State Minisstries of Agriculture to root and tuber program helped the project implementation. Directors of the NARS were reported to have pre-finance some activies when project funds were delayed (Examples are CRI-Ghana; NRCRI-Nigeria, NCRI-Nigeria). Bureaucratic processes related to fund transfers (attributed to differences in the francophone country management systems, apparently used by CORAF and that used by Anglophone countries) caused undue delays in funds release and affected project implementation (**Appendix 6**).

The external factors that contributed in hindering project activities also contributed to missing of project targets. On the average about 30-40% of targets were missed, both in numbers and timing. The prolongation of the project duration to the end of December, 2012 helped to recover some of the missed targets. For a few activities targets were missed because they were set too high and were simply not possible to achieve. Corrective actions suggested to forestall future recurence include making all field-based project duration of at least 3 years to make room for the commencement processe, signing of contracts and transfers of funds. In terms of future yam projects, it is suggested that irrigation facilities be made part of the package. Other suggestions related to technologies call for more efficient multiplication techniques such as hydroponics and aeroponics, two technics being tested by IITA. It was postulated by one of the NARS Project Coordinators that as the yam minisett technology increases the number of seedyams from one tuber from six pieces achieved by farmer traditional techniques to 40 pieces, the yam vine technique together with tissue culture processes can achieve 1,000 yam seeds from same size tuber. The use of hydroponics and areoponics can potentially produce 10,000 seed yams from same sized yam tuber.

The performance of CORAF Program Leaders and their contribution to the achievements of SPS Projects as assessed by country Project Leaders was discussed in general in Section 3.1. Specifically for the Yam minisett project, country coordinators gave high rating to the CORAF Program Manager for performance in planning, coordination, engagement and in monitoring and evaluation,75% of Coordinators acknowledging this (**Appendix 5**). The approaches used by CORAF in work planning sessions and M&E visits were generally considered to be forward looking and should be replicated and institutionalized in NARS. The integration of institutional support (IS) activities into the Yam minisett project is dealt with in Section 3.3. The cross cutting issues of credit facilities was not specifically addressed in the project except for situations where yam planting materials were distributed freely to farmers, an input considered by farmers as "seed money". Male and female farmers were treated equally. There was widespread acknowledgement among beneficiaries that there was not enough credit-related component in the project. In the words of Chief Tola of Eastern Nigeria, "*CORAF Project did not last long enough to enable banks to buid confidence in it. Credit facility could not be made available for such short term project by banks*".

(ii) Bt-cowpea research- The Bt-cowpea research project with formal title "Améliorer la productivité du niébé par l'adoption des variétés de niébé- Bt au Burkina Faso, Mali et Togo" was designed to be implemented in three countries namely, Burkina Faso, Togo and Mali. The specific Objective was *" to improve cowpea productivity in cowpea producing countries through the use of Bt- cowpea varieties*". The Evaluation Team was able to visit two of the countries that implemented the project. Togo was not included in the eight selected countries. The summary information on the project in **Annex A.2, Annex G and H** was based on Questionnaires administered to one Program Leader at CORAF, and two NARS Project Coordinators. There were no project beneficiaries interviews as the project activities did not reach end-user level.

The Evaluation essentially probed into the extent to which sensitization campaigns on crop husbandry and environmental aspects or issues of Bt-Cowpea undertaken, the number of Bt-Cowpea varieties eventually tested in various environments in the countries, the number of Bt-Cowpea varieties resistant to *Maruca Vitrata* were established or reported, and how many training sessions conducted in the countries. The CORAF Program Manager, Regional Coordinator and country Project Leaders provided figures from locations where project activities occurred and some explanations for why results were not realized in some locations. The Project took an approach of first obtaining the public opinions on biotecthnology cowpea (Bt Cowpea) by conducting a study on public perception of the Bt- Cowpea technology in which 400 individuals in two big cities (ouagadougou and Bobo- Dioulasso) and in four (4) villages were previous trials were conducted with conventional Cowpea varieties were interviewed. Approximately 90 stakeholders from the three countries participated in three sensitization workshops.

Agronomic and varietal selection activities took place only in Burkina Faso and Togo. For many reasons including late launching, no field activities took place in Mali. In Burkina Faso four (4) transgenic lines with the Cry1A gene were tested of which two (2) lines were selected. Capacity Training was organized through workshop trainings. One (1) Regional methodology workshop was organized for three researchers. At national levels at least a total of seven training sessions were carried out in the three countries during which 16 researchers and technicians were trained. These reported results imply that the planned activities were largely executed. Detailed information on other aspects of institutional strengthening in terms of laboratory and field equipment and materials are compiled as part of **Annex G,** and further discussed in Section 3.3. A few partnerships were engendered in the three countries. Of noteworthy was the international partnerships developed with AATF. No scientific publications in peer reviewed journals were published. Several internal reports were produced. Among these were: Annual regional reports, Workshop reports, Report on public perception study, Report on gene flux study, Project Final report, 2012 (**Annex H**).

External factors that were deemed to have helped in the achievements were listed as a) link with other USAID initiatives (other Bt-cowpea project involving Burkina, Nigeria and Ghana), link with AATF and availability of accessible Bt technology for research. Among the reported external factors that hindered project implementation were:

a) the slow response in the evaluation of the CFT applications from the National Biosafety Agency,

b) the withdrawal of USAID funding in the middle of the project implementation,

c) the heavy financial procedure for the disbursement of USAID funds, and

d) the absence of decrees of application of the Biosafety law at the beginning of the project.

Box Story

Selling GMO and related Biotechnology Research and Development Agenda and Approaches to Legislators and Policy Makers—The Experience of Nigeria on Bt Cowpea

Some NARS institutions in Nigeria under the Agricultural Research Council of Nigeria (ARCN) have been involved in Biotechnology and Biosafety research for some time now. Genetically Modified Organism (GMO) research has been part of the broader research agenda and Bt Cowpea is one of the commodity/technology under research investigation. The focus has been to introduce genes that make Bt Cowpea resistant to *Maruca vitrata* into popular farmer varieties. ARCN forecasts that by 2018 the first set of varieties would have been made available to the farming communities in Nigeria. Given the uproar that have attended to proposed or actual introduction of GMOs that have been reported from some developed and developing countries, ARCN put certain measures in the way to sentisize both the general public and law and policy makers at the Federal and State levels. These measures were introduced simultaneously in order not to prolong the process of making the technology acceptable in the country. A forum, Open Forum for Agricultural Biotechnology (OFAB) was formed to do advocacy with farmers and other stakeholders, including the Federal and State Governments. Several sentisization workshops were undertaken throughout the country to educate the public on the sometimes vexed issues on GMOs. The ARCN played critical roles in the development of a Biosafety law that got the approval of the Federal level lesgislature, and eventually to be signed by the President of the Federal Republic of Nigeria. It is the opinion of the ARCN that they have made such rapid progress because of the deliberate actions they took, including support to the OFAB and the sensitization of individual Legislators and Working Groups within the various levels of the Legislature. These actions and approaches can become a blue print or model for the West and Central Africa Region. The approach could be incorporated in the ECOWAS mechanisms on Biotechnology and Biosafety.

The proactive attitude of Burkina Faso research system, the experience of the Burkina Faso team and the availability of an artificial infestation system and skills in Burkina Faso (*Maruca* rearing and infestation

protocols) were cited as internal factors that helped to achieve expected project results. Internal factors that mitigated against achievements where listed as

a) the fact that the project omitted the necessity to obtain an authorization from the National Biosafety Agency before starting the Confined Field Trials,

b) the slow pace of publication of the Biosafety law decrees of application, and

c) the very precautious attitude of the National research system vis-à-vis Genetically Modified (GM) crops.

The combination of external and internal hindering factors virtually prevented project activies from taking off in Mali. In Togo only limited on-the-ground activities took place. The Togolese laws were considered too stringent and needed a revision. The absence of the needed national legislation and decrees, and failure to obtain authorization for confined trials particularly frustrated Project Leaders in Mali and Togo. Many targets were therefore missed. The experiences of Nigeria in handling biotechnology and biosafety research and development and processes of getting the legislature and other stakeholders involved is presented in the Box Story above.

The NARS were reported to have participated in the drafting of the project Concept Note and in finalizing the project document. All the countries were reported to have equally participated in activities and the dissemination of results. These areas of collaboration and participation were seen to offer opportunities that could be exploited further to enhance effective program implementation and sustainability at the regional level. The integration of institutional support (IS) activities into the Bt Cowpea is dealt with along with the other projects in Section 3.3.

The cross cutting issue of credit facilities was not specifically addressed as credit was not deemed to be part of the project in the understanding of Project Coordinators. Fifty percent (50%) of Country Project Coordinators ranked CORAF Program Manager in the high category on five measures of project related performance.

3.2.3 Summary Discussion on Issues related to the Implementation of Projects/Activities under the FtF Initiative

Although discussions on the alignment of some projects/activities under GFSRI SPS with the FtF initiative started in early 2012, most preparatory activities, including the development of the CORAF/WECARD-USAID/WA FtF Strategy and its adoption by the CORAF/WECARD STC took place during the last quarter of 2012. A revised Cooperative Agreement that took into account the FtF strategy sent to USAID/WA in October 2012 was eventually signed in March 2013. The second quarter of 2013 saw the creation of teams to develop the FtF project proposals for staple crops and livestock, supported from funds transferred to CORAF/WECARD by USAID/WA in May 2013. According to documents provided by the FtF Coordinator at CORAF/WECARD, a statement was provided to explain the delays in implementing the FtF as "… *.before any contractual arrangement for the project implementation at the ground level takes place, the approval of the STC is compulsory in CORAF/WECARD procedures. For that reason, no funds could be transferred to countries before the start of the rainy season, and therefore, no field activity could be carried out during the FY 2013 beside the carried over activities from the previous Fiscal Year, conducted from January to March 2013*".

According to the same documentation, in line with the CORAF/WECARD project review and approval requirements and guidelines, in October 2013, the newly developed FTF projects was presented to CORAF/WECARD STC for validation, during which the STC recommended that *: "1) new project proposal be evaluated by external evaluators, due to the extent of changes brought into the previously existing*

projects and to the fact that new topics on Livestock (Meat and Milk) and Biosafety were coming on board; 2) new contractual arrangements be made with the new partners consortia". According to information from the CORAF/WECARD staff the six new FtF project proposals were evaluated and validated by external evaluators of the STC only between November 2013 and March 2014. Subsequently, between April and July 2014, 33 new sub-agreements between CORAF/WECARD and the national coordinating institutions were developed, finalized and signed by the parties.

Although CORAF/WECARD stated funds were received from USAID/WA in April and July 2014, "*these funds were used to carry out regional activities and the first tranche of funds was transferred to project implementing partners between August and September 2014"*. According to CORAF/WECARD the regional activities conducted include: 1) the development of a robust M&E system for the FTF, 2) training Project Coordinators and M&E Officers in Result based management and the use of the new M&E tools; 3) training project staff in USAID Environmental safeguard standards; 4) setting of innovation platforms at the project level with the help of IITA; 5) developing a web based reporting and knowledge management system for the FTF project; 6) the evaluation of the impact of the GFSR projects; 7) conducting new baseline studies for the major commodities in WA; and 8) conducting additional data collecting in field for DQA. (**Annex A.1. B**)

From the time lines provided by CORAF/WECARD regarding the processes that led to the development of the FtF proposals, the review, validation and disbursement of funds to collaborating NARS, there was nothing or very little activities on the ground at the NARS for the evaluation team to assess during their visits to the countries.

3.3 INTEGRATION OF INSTITUTIONAL SUPPORT ACTIVITIES INTO SPS PROJECTS

As mentioned in Section 1.2 of this Report each of the six projects had built-in cross-cutting Institutional Support (IS) and capacity strengthening of CORAF/WECARD's Executive Secretariat. Each of the six SPS projects also had built-in cross-cutting institutional and capacity building activities, including training, to strengthen value chain actors for enhanced food security. The primary institutions referred to here are the participating NARS and their collaborators. In line with the earlier definition of "institution" adopted in this evaluation, farmer/processor-based organizations and NGOs are considered institutions. Therefore, support provided by the SPS projects to these oranizations is considered valid to be included in this Section. In this connection support (materials, equipment, training) reported to have been rendered to such organizations are included in the discussion. In order to gauge the level of integration of institutional support activities into the SPS Projects, CORAF Program Leaders, Regional and Country Project Coordinators were requested to provide answers to specific questions in the questionnaire instrument. Among the questions were:

a) What are the institutional achievements (laboratories, equipment, materials) supported?

b) What are the capacities strengthening achievements?

c) What are the partnerships developed and strengthened?

d) How many project staff were involved in institutional capacity-building related activities during the project implementation period?, and

e) What evidence exists to link project implementation to improved institutional outputs?

Program and Project Coordinators provided comprehensive lists of equipment, infrastructure and materials provided to participating NARS. These are compiled in **Annex G** of this Report. Numbers of NARS staff and user-end beneficiaries are indicated in **Annex A.2.** In summary the evidence presented to the Evaluation Team through the questionnaire and those sighted by the team members portrays of scenarios where substantial capacity building and strengthening capacities were integrated into the SPS projects. Among physical equipments are laboratory equipment, screen houses and seed stores **(Annex G).** Office equipment such as computers and heavy duty printers and photo copiers were shown to the Evaluation Team in Senegal and in Ghana. The Evaluation Team learned at first hand information on capacity built in Project Leaders, their cohorts and other staff at NARS through various workshops and training sessions organized under the SPS Projects.

The capacitated NARS Project Coordinators contributed from 40-90% of their time on the SPS Projects under their management. In some cases the SPS Project budgets supported hiring of secretariat staff who not only served the Project Coordinator but also served othe NARS research leaders (Example is IER-Sotuba, Mali). The research activities under SPS Projects were considered integral part of the institutions' research and development agenda, therefore the outputs from the SPS Projects, such as publications were listed in institutional publication list. Project Coordinators brought increased visbility to these institutions through workshops and training sessions hosted in these institutions. Some of these Coordinators were in turn honored by the NARS. For example, Dr. Mammorun Diourte, the Coordinator of the Striga-Sorghum project in Mali was elevated to the position of Director of Programs at the CRRA Centre of IER at Sotuba. Dr Diourte attributes his elevation to the visibility he gained from coordinating the SPS Project. Another Coordinator from Senegal acknowledged that the SPS Project was his first coordination of a regional project and the experience gained has given him confidence to coordinate othe regional projects. A few M&E Units at some participating NARS acknowledged strengthened capacities because of the association with the CORAF M&E. Similarly, some NARS institutions acknowledged their systems and processes for planning and implementation of research have been positively impacted by the implementation of the SPS Projects in their respective institutions.

3.4 BEST PRACTICES IN PROJECT IMPLEMENTATION, PARTNERSHIPS AND STAKEHOLDERS' INVOLVEMENT

CORAF/WECARD was selected to receive funding for the ISFP and to coordinate the SPS Projects to be implemented based on its strength to coordinate and on its expertise in using approaches and methods that consider partners end-users as central to achieving outcomes. The CORAF mechanism for coordination of research as described in the *Strategic Plan 2007-2016 – Producers and End users at the Centre of Agricultural Research (CORAF/WECARD, 2007*) is based on innovations systems approach and IAR4D paradigm requires multi-stakeholder and mult-level engagement. According to the Strategic Plan, a key issue is coordinating actors involved in particular bits of development work, including researchers, NGOs, communities and extension to bring them in line with shared goals. According to the coordinating mechanism strategy, the aforementioned stakeholders are the key to success. The Evaluation Team took the approach of discovering how partnerships and stakeholder involvement principles were brought to bear on the implementation of SPS Projects.

The Evaluation sought a clarification from CORAF/WECARD senior management on how the mechanism described above and their capacity strengthening mechanisms result in best practices in project implementation, partnering and stakeholders' involvement. CORAF/WECARD cited Innovation Platforms (IPs) as major vehicles for developing best practices and building lasting effective partnerships. According to CORAF/WECARD it succeeded in coordinating and supporting the establishment of about 175 IPs at different levels of functionality during the implementation of the first Operational Plan (OP), which it considers as a potential **impact infrastructure** in the sub-region. They

are being operationalized by 136 consortia consisting of different categories of stakeholders of the National Agricultural Research and Innovation Systems (farmers and their organizations, NGOs, private sector, research institutes, institutions of higher education, women groups, policy makers, etc.). Two Examples of CORAF related IPs are in **Annex K.**

The Evaluation Team interviewed nearly 100 end user beneficiaries to share their experiences on their involvement in the SPS during and after implementation. Among the questions asked were their knowledge and involvement in IPs. Only about 5% of respondents recalled having heard or participated in IPs associated with the SPS Projects. However, 40% of the beneficiaries reported that they had participated in other IPs where they held various positions (**Annex B**). The results from the analysis of the beneficiary interviews have been compiled and reported as a separate Paper **(Annex B**). Review of responses from 24 Coordinators also showed that IPs have not been established. The only exception is one IP established in Central Nigeria on Post-harvest rice processing as a result of SPS Project. Additional fora which activities have some resemblance of IPs and were brought to the attention of the Evaluation Team were Farmer Field Schools, Women processing and market groups. It was the view of some NARS Project Coordinators that the groundwork has been done to create IPs under new phases for any SPS-like projects that would be established in the future based on the achievements, knowledge and experieces accumulated under the SPS Projects.

The Evaluation Team was informed of many partnerships engendered during the implementation of the SPS projects. The list of partnerships created by projects in each country is in **Annex N**. The institutions involved have the possibility to join subsequent projects, and have the potential to bring more efficiency to future projects as they have experience in working with the NARS institutions. Many of these partner institutions were acknowledged by Program and Project Coordinators as providing external influences that contributed to the success of most of the SPS Projects. Thus, there is sufficient evidence to demonstrate that the SPS Project Coordinatorss engendered many partnerships, including those at research institution and end users. The beneficiary suvey analyses showed that 40% of the beneficiaries joined the various projects because of direct invitations from the Coordinators. Another 17%, 23% and 60% of beneficiaries reported that they have remained in contact with Project coordinators 12, 18 and 24 months after the closure of the SPS projects. These obsrvations are examples of true "best practices" in project implementation and partnerships development. Building on these experiences would likely lead to achievements of outcomes and impacts among future beneficiaries. This scenario is in agreement with CORAF/WECARD's proactive views of pursuing its functions of strengthening the capacity of NARS, within the context of its second OP (2014 -2018), which will revolve around strengthen functions and forms established during the implementation the first OP. The second OP will focus on scaling up and out of results delivered to strengthen the already developed impact infrastructure (CORAF/WECARD Philosophy, **Annex I).**

Results on a Case Study on a producer cooperative iin Mali that participated in the Striga-Sorghum project is presented below. This cooperative comprising seven smaller cooperative is cooperating with IER Mali in searching for solutions describe in **Annex A.3**, can be considered a prototype Innovation Platform, and can form a basis for the formation of a full IP with expanded membership .

3.5 SUCCESS STORIES AND UP-SCALING RESULTS

At all stages In the course of the evaluation, from the review of project documents, to interviews with Project Leaders at CORAF and NARS level, and with project beneficiaries, numerous extraordinary achievements in project planning, implementation and follow-up actions were found already documented or were brought to the attention to the Evaluation Team. These extraordinary results from project activities, their impacts on the immediate project participants and their families, and some extent on the

larger communities, were deemed to be "successful" outcomes and categorized as beyond ordinary expectations from project interventions. The chain of events, the conditions that prevailed for the realization of the outcomes, and impacts the outcomes made on the beneficiaries have collectively been referred to as contributing to a "success story" in this Report. An analysis of the recorded success stories showed that virtually all the six SPS projects achieved at least a few success stories in one or more of the countries where the projects were implemented. A compendium of a few of the successes stories is presented in **Annex J.** One such noteworthy success story is captured in a Box Story below which deals with the experience of one Evangelist Thomas Anioji, a yam farmer in Enugu State of Nigeria:

The usefulness of recognizing, documenting and publicizing extraordinary achievements in developmental interventions lies in the possibilities that some of the factors that contributed to the success can be isloted, analyzed and tested for those factors that could be created in diferent situations to generate similar extraordinary outcomes and thereby contribute to the replication of success stories at community and district country levels, and where possible up-scaling them at national and sub-regional levels**.**

Analyses of external and internal factors that helped the various SPS projects achieved project outcomes as reported by 24 number of Project Leaders at NARS level indicated that the following factors were the most important for successful outcomes, namely existence NARS instutions with expertise and willing to involve farmers in research, existence of capacity building programs and collaboration among stakeholders. Some of these factors were

Box Story

Meet Evangelist Thomas Anioji – The world famous yam farmer from Isu-Awaa in Enugu State of Nigeria whose participation and exceptional performance in the USAID-funded CORAF-NRCRI Project on yam minisett attracted a joint CNN International-BBC interview and a documentary report on the two Networks.

Hear his story as narrated to a member of the evaluation team when they met in Enugu late July, 2014.
Mr. Thomas Anioji, a 60-year old full time farmer and also a longstanding evangelist of a local protestant church in Isu-Awaa in the Awgu Local Government area of Enugu State, Nigeria, became a farmer at younger age. Soon after completion of his secondary school education, he took over his father's farm as a peasant farmer after his father died. He initially followed his father's yam crop husbandry practices which entailed the traditional way of cutting yam tubers into pieces, storing them until time for cultivation.

One day in the year 2000, according to Mr. Anioji, one Dr. Ikwe, a young researcher working under Dr. John Ikuorgu at the Nigeria' National Root Crops Research Institute (NRCRI), Umudike near Umuahia, approached him at his village and informed him that NRCRI was looking for farmers to participate in field research trials that involved multiplication of yam seeds. Dr. Ikwe gave him two yam tubers and instructed him to cut them into a total of 50 pieces, and further asked him to nurse them using his (Anioji) way of doing things while Dr. Ikwe also cut his two tubers into 50 pieces and nursed them at the research institute's facilities, using the then available techniques at the center. When comparisons were made at harvesting time, lo and behold Mr. Anioji's harvested yams were far higher in yield and of better quality than the produce from the research center. The researchers came to ask of his secret. This feat was repeated in the following year. Based on this achievement realized under local farming conditions, Dr. Ikeorgu, the Nigeria Country Coordinator of the USAID-funded project on Yam Minisett technology, coordinated by CORAF and implemented by NRCRI, approached Mr. Anioji to participate in the project as a seed yam multiplier. Mr. Anioji was given 1000 yam tubers to cut into about 10,000 seed yams to be nursed, using his own methods. This was around August 2009. By harvest time in February 2010, only about 500 (5%) of the seed yams had failed, a figure which was much lower than the average recorded under other local farms. Subsequently, Mr. Anoji combined other techniques taught him by Dr. Ikeorgu and Dr. Ikwe and applied them on 13,000 seed yams and realized even better results. Dr. Ikeorgu wrote this success story in a local newspaper that attracted the attention of the CNN International and BBC World Service. In August 2010 Mr. Anioji was jointly interviewed by the two Networks and the interview was aired by both CNN and BBC. Mr. Anioji received congratulatory messages from Nigerians home and abroad. He became a local celebrity and national hero ever since.

In 2011, Evangelist Anioji was invited as a trainee participant of a Training Course on commercial yam production organized by a donor-funded project called YIIFSWA. His contribution as a trainee and quality inputs into the discussions convinced the Coordinator of the course from the International Institute for Tropical Agriculture (IITA) to ask Mr. Anioji to teach the practical modules of the course. On a World Bank-funded Fadama Project, he was made a resource person for the component "Planting Yams", teaching farmers how to successfully plant yams under inland valley (fadama) systems. After contributing significantly to discussions in another Workshop in the city of Owerri, Mr. Anioji was literally drafted into the apex Nigerian farmers' association AFAN () and currently serves as the Secretary to AFAN- Awgu Chapter. Evangelist Anioji is now a well-respected community and church leader in his Local Government area. He attributes much of his success, achievements and confidence from his participation in the USAID-funded CORAF-NRCRI project on yam minisett technology for multiplication of seed yams. Currently planting between 4000 and 5000 seed yams on about 2.5 acres of land, Evangelist Anioji plans to diversify his farm business by including cassava in coming years. His message to his community and country is that "Farming is now a business in Nigeria. Do not neglect agriculture as a business, because no one knows when the oil in Nigeria will last".

present in several of the situations where success were recorded, and certainly were present at Mr. Anioji's farming experience.

During the course of the evaluation and interviews it emerged that many of the successes and spectacular achievements and accompanied success stories are not widely publicized and many remained buried in reports that never leave the confines of institutions, including those better endowed such as CORAF/WECARD, as evidenced by the large number successful interventions reported in reports submitted by NARS but which not widely known by the general public. It took a small article published in a local newspaper on Mr. Anioji's experience to attaract much wider publicity created in this case by CNN International and BBC World Service.

The evaluators identified situations where project implementation constraints and challenges, especially delays in approved funds to field teams limited the scope and numbers of potential activities that could have resulted in more outcomes that could be described as successful to attract publicity on the achievements of the SPS projects. Among the most frequent factors considered to have affected the realization of superior outcomes was delayed release of project funds. The following statement " *Late planting due to late release of funds contributed to the lower-than-expected yields. Seed yams were purchased in March and planting was done in May/June and for some in July/August. Many of the seed yams got rotten in storage while awaiting funds for planting"* was found in one of the CORAF-NRCRI reports for the yam minisette project which resulted in exceptional performamce of Evangelist Anioji. Formal analyses of Project and Program Leaders responses to the questionnaire listed external factors that impeded achievement of positive outcomes to include collaboration with CGIAR Centres and NARS facilities with required infrastructure and expertise, especially designated Centres of Excellence.

3.6 SUMMARY OF FINDINGS IN RELATION WITH EVALUATION QUESTIONS

Based on the evidence provided throughout this Report the Evaluation Team deduces that information in **Annex A.3**, **Annexes G and H and Appendix 5** adequately address the Evaluation Question **1A** that seeks to require evidence of documented achievemes by the IS and SPS components of the USAID funding. Most expected targets were met and much of the information have been communicated within the research and development community in the subregion through periodic and special Reports, and to the external community through a few peer reviewed scientific journals. A summary of information in **Annex A.2** and in Appendix 6 on external and internal factors that helped or hindered achievements with details in **Section 3.2** (i) and (ii) and **Annex A.1.A** adequately address **EQ 1B,** with the main external factors being the existence and collaboration accessed within both the international and national systems and positive policies on some staple crops by some of the governments in the participating countries **(Appendix 6)**, whereas the dominant external factor that hindered achievement was delayed fund releases. Short duration for project implementation was said to have contributed to unrealization of some of the targets. For internal factors, cooperation and collaboration within the NARS researchers and Directors willing to finance helped greatly in achieving targets. Internal factors that negatively affected project implement included inadequate logistics that affected mobility to the field.

Adjustments and corrective actions for improvement (EQ 2) were addressed variously in details in Section 3.2 (i) and (ii) and **Annex A.1.A** The summary of adjustments and corrective actions in **Appendix 7** address **EQ 2**. A better analysis of backgrounds of potential projects, setting realistic targets, asseesing more realistic project duration, a more inclusive monitoring an evaluation systems

emerged as critical adjustments and corrective actions needed to bring on-going projects in line and for better implementation for future projects (**Appendix 7**).

The various partnerships between CORAF and NARS and among NARS that facilitated subregional, in-country monitoring visits to project sites, and the occasional monitoring visits by the donor agency, joint planning, sharing of experiences discussed in Section 3.2 and Annex A.1 address EQ 3, as these practices were identified by both CORAF Program Leaders and NARS Project Coordinators as having great potential to instil sustainability in project implementation.

An analysis of 92 beneficiary survey data provided ample evidence that the cross-cutting issue of credit availability was largely not dealt within the projects except for the Post-Harvest project (see **Annex B** for views of end-user beneficiaries). The gender-based economic development constraints was found addressed in some of the projects in the areas of capacity building and the distribution of inputs and equipment as described in **Annex A.1**, Section 3.2 and Section 3.5 and **Annex B.** These together address EQ 4. The percentage of trained people in terms of gender depended on the project focus. About 80% of trainees was females in Post-harvest project and as low as 30% on projects focusing on agricultural productivity.The data analyzed also showed that some projects had fewer female participants than males, as a more or less random process of selection of beneficiaries for interviews yielded 33% females and 67% males. Regious and cultural inhibitions on females engagement in farming in some countries were cited as the reason for lesser female participation in farming-based projects.

The integration of IS activities into the six SPS projects was dealt with in Sec 3.3. Information in **Annex A.3, Annex B, Annexes G and H** which list training among NARS staff and project beneficiaries, equipment and materials acquired for NARS and farmer-, processor-based organizations that enabled them achieve professional and business growth. In sum these measures point to a high level of integration of capacity building activities and institutional strengthening into the SPS projects, and thus respond to the EQ 5- Integration of cross cutting institutional and capacity building into the SPS, supported by clear evidences.

4.0 CONCLUSIONS

The conclusions from the evaluation are organized around the the three objectives of the evaluation listed in Section 1, namely**: 1)** Evaluate the achievements, **2)** Evaluate the best practices and the impact on the direct and the indirect beneficiaries; and **3)** Provide information on partnerships, networking and opportunities generated through the project.

Project Intervention and Achievements: The SPS projects carried out under the GFSRI met most of its target and addressed the felt needs of stakeholders. Among these achievements are the large number of Agro-ecological zones in which the projects established project activies and demonstrated technologies and the number of training courses launched and persons trained (Annex A.2). For xample, for the Striga-Sorghum, 3 Regions in Mali, 3 Regions in Burkina Faso, 10 Communities in Senegal were covered, wheras for the Yam Minisett project as many as 3 Regions in Ghana, 13 States in Nigeria, 3 Regions in Togo, 6 Districts in Benin were covered. Similarly for the Rice –RYMV1 project several AEZs in 6 countries were covered. Key targets were also reached and included: Striga-Sorhum project-45,000 kg of seeds produced in 2 countries, 16 Contracts signed, and 3 fold yields recorded for improved varieties.

For Yam Minisett project, 1,211,813 yam seeds produced. Evidence was adduced that showed that most targets were achieved by majority of the Projects. These were demonstrated in Section 3.2 and Annex A.2 of this Report. Targets not met were related to a broadly subscribed view among both CORAF and NARS Project Leaders that some of the targets set were unrealistic (Appendix 6). For projects/activities

earmarked to be carried out under the FtF, delays mostly associated with internal CORAF/WECARD procedures on project reviews, approvals and validation resulted in very little activities on the ground at NARS sites (**Annex A.1. B**). However, some essential institutional and human capacity strengthening activities were carried out by CORAF/WECARD during the period under consideration (**Annex A. 1. C**).

Best practices and the impact on beneficiaries: The routes to reaching end-users' needs and intervening with solutions were quite different for some SPS Projects. For example, the Bt Cowpea project, in addition to undertaking the technical aspects of the project, needed to work behind the scenes to get relevant legislation and regulatory bodies to put in place the necessary frameworks in order for project to take off. Another exemple is the Post –Harvest Project. That project made quick strides, made possible by available infrastructure and partnerships platforms available at NARS, and willing processing-based associations available in all countries involved in the project. Lack of steady progress in the first case, can be attributed partly to the bottlenecks in the processes, entirely beyond the control of Program and Project Leaders. Despite the best practices and intentions of partners at country level, project activities were largely confined to labs and experimental facilities. Based on the two scenarios mentioned above, the Evaluation team further concluded that different time frame (duration) would need to be assigned to different projects, even if several projects are funded together under a single cooperative agreement, based on an observation that "one size does not fit all".

A finding the number of females engaged as Project coordinators (4 out of 31 coordinators), and only 30 out of 92 respondents in the Beneficiary survey led the Evaluation Team to conclude that the participation of women in most of the SPS projects was rather low. Reasons adduced for this state of affair includes the fact that in some communities women involvement in farm work is restricted by religious and cultural beliefs, the fact that some crops such as yam are considered "men's" crops and that beneficiaries would tend to be dominated by men, if such crops are the subject of investigation. These reasons notwithstanding, future projects must be designed to include components that are of special interest to women.

Partnerships and networking: A review of documentation provided by CORAF/WECARD on partnerships and partnering, including its Strategic Plan, and answers to questions pertaining partnerships and networking submitted to the Evaluation Team revealed an impressive mechanisms of forming and sustaining partnerships by CORAF/WECARD. Over 150 partnerships were developed during the implementation of the SPS projects.. Evidence was presented to the Team of the extensive partnerships in place at CORAF/WECARD and was brought to bear on the SPS projects (**Annex N**. Africa Rice, IITA and ICRISAT were mentioned as CGIAR Centres who brought in their facilities and expertise to bear on the SPS projects. The Evaluation Team further concluded that these partnerships will be crucial in future multi-country multi-level projects, especially in scenarios where regional travels become restricted, and therefore must be nurtured. The Evaluation Team sees opportunities of some partners in the CGIAR system using their Finance and Administration structures to handling CORAF/WECARD financial transactions with NARS on behalf of CORAF/WECARD.

Overall conclusion: Overall, it is the conclusion of the Evaluation Team that the Evaluation Questions have largely been responded to in affirmative to the effect that the program achieved most goals, mostly documented but needed mechanisms to communicate results in ways that will make replication and upscaling much easier. Where targets were missed, the Evaluation Team found transparency among Program and Project Leaders in acknowledging the status but also suggested ways for adjustments and corrective actions (**Appendix 7**). The delays in approving and validating the FtF projects at the CORAF/WECARD level negatively affected the implementation on the ground, although some essential institutional and human capacity strengthening activities were carried out by CORAF/WECARD during the period under consideration. Some opportunities were identified by project implementors and

coordinators that when considered more carefully could bring certain level of sustainability in project implementation.

5.0 RECOMMENDATIONS

The Recommendation section organizes and summarizes the key challenges, constraints and recommendations as seen relevant by the Evaluation Team. These are organized around the five issues/themes utilized in presenting the findings in Section 3.

5.1 INSTITUTIONAL SUPPORT AND CAPACITY STRENGTHENING

Speeding up the processes of project reviews, approvals and validation at CORAF/WECARD The long process at CORAF for preparing, reviewing, approving and validating the FTF projects before the the receipt of funds from USAID/WA hindered the ability of the FtF project coordination team at CORAF/WECARD to establish project activities at NARS sites efficiently.

Recommendation: CORAF/WECARD should consider shortening the STC processes for project reviews, approvals and validation. They should also adapt flexible procedures and steps to accommodate situations where time is of the essence.

5.2 LOGISTIC SUPPORT AND MOBILITY FACILITATION AT NARS IMPLEMENTING DONOR-FUNDED PROJECTS

The USAID funding for Institutional support enabled CORAF/WECARD to strengthen its Staple Crop and Biotechnology and Biosafety Programs. Through the SPS Projects participating NARS also benefited from the strengthening of capacities in their institutions. Project Coordinators reported of transport and related logistics, in terms of vehicles to reach remote project sites hampered their performances. Project teams in the countries often relied on their respective institutions for field work, and often faced competition with other Projects at the institution.

Recommendation: USAID and CORAF/WECARD should consider making adequate budget allocations that cater for the effective field project implementation and monitoring by NARS institutions earmarked to participate in the upcoming Feed the Future projects.

5.3 OVERHEAD CHARGES/MANAGEMENT FEES PAID TO DIRECTORATES OF NARS IMPLEMENTING DONOR-FUNDED PROJECTS

The Evaluation Team's attention was repeatedly drawn to the situation by NARS Leadership of a very low overhead charge of 2.5% paid by the SPS projects. NARS Directors argued that the rate offered by the SPS were the lowest and do not meet the cost of services rendered to the Project. There appeared to be some resentment that previously agreed rate of 10% with CORAF/WECARD on previous projects was not applied to the SPS projects.

Recommendation: The Evaluation Team recommends that CORAF/WECARD honors previous agreements made on Memoranda of Agreement with NARS regarding payments of overheads. It is recommended to USAID to consider making provisions in Budgets that will allow CORAF/WECARD to pay at least 10% overhead to NARS institutions implementing USAID-funded Projects.

5.4 SUPPLEMENTARY PROGRAM SUPPORT (SPS) PROJECTS ACHIEVEMENTS

5.4.1 Project Logical Frameworks, Indicators and Targets

The Evaluation Team reviewed the Logical Frameworks of all the SPS Projects, and found them very variable in format, presentation and information therein. A source of concern was the apparent confusion on the lack of clarity on indicators and targets. In some of the Logical Frameworks indicators are expressed as targets and vice-versa. There was also lack of clarity on who were the beneficiaries for some of the projects.

Recommendations: CORAF/WECARD should better articulate the definitions of indicators and targets in their M&E Frameworks and ensure participating NARS are well familiar with elements in the Log Frames, including methodology for establishing credible baselines. CORAF/WECARD should organize a series of training for M&E units in NARS. The training should be extended to current and future potential Project Coordinators.

5.4.2 Documentation of Research Results and Progress Reports

The Evaluation Team had the occasion to review documented research and progress reports emanating from CORAF/WECARD and SPS Project Coordinators. Varying formats of reporting results, organization of data, and level of details were observed. The extent of variability was such that comparisons across projects and synthesis from periodic reports became very difficult and time consuming.

Recommendation: CORAF/WECARD should standardize formats for various categories of Reports. These standardized formats should be extended to NARS participating in projects coordinated by NARS.

5.4.3 Integration of Institutional Support into SPS Projects

Scope of integration

The Evaluation Team found credible evidence that the institutional support in capacity building/strengthening were largely integrated into the SPS Projects.

Recommendation:CORAF and participating NARS implementing USAID-funded projects requiring similar integration in the SPS projects should ensure that integration should be more encompassing (beyond physical and material items) to include procedures and methodologies that benefit NARS in their implementation.

5.4.4 Best Practices in Implementation, Partnerships and Involvement of Stakeholders

***Innovation Platforms and Experience Sharing and* Exchanges**

Although the Evaluation Team found only a couple of rudimentary Innovation Platforms associated with the SPS projects in the field, there were indications that a few project end-user beneficiaries are familiar with the processes of IP operations and have participated in IPs of other projects.

Recommendation: CORAF/WECARD Program Managers should take advantage of the opportunities on the ground to speed up the process of initiating the steps required to form IPS that will serve the needs of future projects.

Recommendation: USAID and CORAF/WECARD should capitalize on the experience and novel approaches used in the ended SPS projects in informing methodologies and researchable areas in future projects.

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ANNEXES

ANNEX A.1. A– SUMMARIES ON THE IMPLEMENTATION OF THE SIX SUPPLEMENTARY PROGRAM SUPPORT (SPS PROJECTS)

(i) Integrated *Striga* control in sorghum

The integrated Striga control in sorghum project, with a formal title "Promotion des variétés de Sorgho Résistantes au Striga pour réduire les crises alimentaires dans la zone sahélienne (Sénégal, Mali, Sud du Nigéria et au Burkina Faso" was designed to be implemented in four countries, Mali, Burkina Faso, Senegal and Niger had an Overall Objective to "*promote Striga tolerant sorghum varieties to improve sorghum yield".* The Evaluation Team was able to visit three of the countries that implemented the project, namely Mali, Burkina Faso and Senegal. Niger was not included in the eight selected countries, and the Coordinator did not respond to the Questionnaire sent to him by e-mail, and also did not pick up phone calls made to him. The summary information on the project in **Annex A.2, Annexes G and H** was based on Questionnaires administered to one Program Leader, three Project Coordinators and 22 project beneficiaries.

The Evaluation probed into the extent to which the four planned results on partnership for the promotion and dissemination of Striga tolerant sorghum varieties, capacity strengthening of extension agents and producers, training of seed producers, and on producers usage of Striga resistant sorghum varieties in their individual farms were achieved. Evidences were adduced to illustrate the achievements of these key results: CORAF signed three "Contracts" and 16 "sub-contracts" with institutions in three countries in pursuing partnerships for promotion and dissemination of tolerant sorghum varieties; the number of farmers trained through Farmer Field Schools (FFS) exceeded the target of 250 by more than 5-fold in the capacity building effort of the Project; recording over 210 seed producers trained in 2010 against the target of 250 and strengthening the capacity of 121 private sector entrepreneurs in three countries against a target of 75, all point to high level of achievement by the Project.

The processes articulated in the project log frame, such as testing of tolerant sorghum varieties, involvement of producers of both gender in project activities, promotion of resistant varieties of sorghum were followed. Some selected varieties clearly outperformed local varities. For example theselected F2- 20 yieded 1,300kg/ha as compared with 550 kg/ha from a popular local variety. Interviews with farmers participating in the project in Kafarin area of Senegal, farmers reported 2 to 3-fold increases in yields when they switched from local varieties to Striga resistant varieties. Successes reported by end users who were involved in the project are included in **Annex B.** The Project publicized the technology and associated techniques through production and distribution of manuals and communication channels such as TV and radio programs in all countries. Nine (9) scientific publications, several internal reports (quarterly, annual) and at least 12 divulgation documents and articles were produced by the Project. These publications are included in the List of Publications of the SPS projects in **Annex H**

External and internal factors that were deemed to have helped in the achievements were listed as good planning with regional and national stakeholders, project monitoring, contribution by partners such as NGOs, support from NARS directors in pre-finacing of SPS projects in periods when transfers to projects were delayed. On the other hand, external factors such as dry spells, droughts and effects of climate change were considered to have hindered project achievements. Bureucratic processes relate to fund transfers, late submission of financial reports, poor quality reports were mentioned as internal factors that hindered project implementation and achievements. The external and internal factors that contributed in hindering project activities also contributed to missing of project targets. On the average about 20-30% of targets were missed, both in numbers abd timing. The prolongation of the project duration helped to recover some of the missed targets. For a few activities targets were missed because they were set too high and was simply not possible achieve.

The performance of CORAF Program Leaders and their contribution to the achievements of SPS Projects as assessed by country Project Leaders was discussed in general in Section 3.1. Specifically for the Striga sorghum project, country coordinators gave high rating to the CORAF Program Manager for performance in planning, coordination and bringing experiences elsewhere to bear on the project. Seventy five percent (75%) of Project Leaders rated the CORAF Program Leader in the high category on a 4- project related performance (Appendix 5). The integration of institutional support (IS) activities into the Striga sorgum project is dealt with in Section 3.3. Partnerships engendered and the mechanisms developed to share experiences and furthering the development of innovations created within the Project are discussed in Section 3.4 of this Report - Best practices in project implementation, partnerships and stakeholders' involvement.

(ii) Agro-processing in rice, cassava, sorghum/millet products

The Post-harvest agro-processing with a formal title "Amélioration de la qualité post récolte et du conditionnement des produits à base de riz, de mil/sorgho et de manioc afin d'accroître leur valeur marchande en Afrique de l'ouest" was designed to be implemented in tnine countries, namely, Benin, Togo, Nigeria, Ghana, Niger, Senegal, Mali, Burkina Faso and Liberia. No activities were initiated in Liberia, and hence dropped out of further project coordination and monitoting and evaluation. The general Objective of the project was " *To demonstrate appropriate post-harvest technologies, marketing techniques andfacilities (for rice, sorghum/millet and cassava) to producers and processors*." The Evaluation Team was able to visit six (6) of the eight (8) countries that implemented the project. Togo and Niger were not included in the eight selected. The summary information on the project in **Annex A.2** was based on Questionnaires administered to one Program Leader at CORAF, six NARS Project Coordinators and 26 project beneficiaries. The Evaluation among other things, probed into the extent to which the four Results were achieved, extent to which technologies of processing promoted, the extent to which the processing technologies were able to overcome losses in commodities, and the extent to the promoted processing technologies were able to add marketing value to the selected products.

The CORAF Program Manager and the six Country Project Coordinators provided several figures and several recorded success stories to illustrate the achievements of the Project. These achievements were provided alongside the targets set for the project at its onset. . Among the key targets/indicators set were a) an organization of an initial workshop, b) distribution of 300 of Manuals for each crop, training of a minimum of 20 researchers, 200 groups of producers and processors and c) training of at least 200 groups rice pruducers/processors and 100 groups of millet/sorghum producers/processors for which at least 80% are women. Evidence gathered during the evaluation showed that the initial workshop was indeed held with a diverse group representing policy makers, post-harvest specialists, women groups, NGOs and Development Partners (DPs), all totaling 40 persons. Thirty three per cent (33%) of participants were females. Responses to the Program and Project Leaders questionnaires showed that 1,000 manuals on rice (in French and English) were distributed widely. The corresponding figures for millet/sorghum and cassava were at least 500 and 1000, respectively.

The training aspects of the Project achieved appreciable success. A total of 50 beneficiaries from the participating countries were trained at the Songhai Centre in Benin on rice and cassava. The Evaluation team met some of trained beneficiaries in Senegal and Nigeria. In-country traing were offered to over 420 beneficiaries with female trainee percentage ranging from 68% to 82%. The technology of par-boiling in rice processing, fortification with zinc, iron and folic acid in millet/sorghum and the distribution and use of new equipment that reduce losses in cassava were recorded. Evidence of these were observed during the EvaluationTeam's field visits to a women group in Pont Gendarme in Senegal. The successful fortification of processed millet/sorghum with zinc and iron in Niger, under a difficult funding situation (withdraw of funds by USAID), and involving a private sector, and undertaken by a public-private-

partnership arrangement has been documented and included in a compendium of success stories in **Annex J**. Noteworthy is the request from SOS Villages to SPS project trained women to supply fortified millet/sorghum to institutional facilities under an arrangement whereby a donor agency underwrote the project. The assured prices under such arrangements certainly must have improved the earnings of these processors. A women group in Central Nigeria was linked to a micro-finance institution and successfully met the borrowing requirements of the institution. The Box Story below tells the developments that led to this achievement.

Box Story

Turning A Social Club Into A Productive Economic Cooperative

A Success story from Doko, Bida Niger State, Nigeria

Doko is a quite village some fifteen kilometres away from Bida, the capital of the ancient Nupe Kingdom. It is an agrarian community and rice is the dominating crop. Women are mainly involved in rice processing and marketing. In 2011, the CORAF/WECARD project on improving rice postharvest and quality of rice for increased marketability was implemented in the village and its surrounding communities. Women in the village were having a social club where they are involved mainly in social celebration and related activities. "*Our club is mainly for those of us processing and marketing rice and can be changed to cooperative*" says Mrs Rebecca Gana, a project participant. Taking a strong leadership from the women social club, a cooperative – Doko Women Rice Processor – was registered and its members trained on improved rice processing and marketing. The women were lead to a community bank to open bank accounts in their respective namest, and were given a loan ranging from 80,000 to 320,000 Naira (US$500 to US$2000). Today, several of the members of the cooperative have increased the amount of rice they processed and the quality has improved and are therefore taking their products to the Niger State capital, Minna, where they earn more money at a competitive price. A Social club has finally turned to an economic productive cooperative, a gesture from National Cereals Research Institute, Badeggi and its partners, CORAF/WECARD, implementer of a USAID-funded project and Songhai Centre.

Institutional strengthening capacities achieved by the Project in participating NARS include a wide range of laboratory equipment and materials provided to CRI (Ghana), ITA (Senegal), IER (Mali), NRCRI (Nigeria), ITRA (Togo). Twelve women groups were provided with processing facilities wheras two processing centres for rice and cassava were established at the Songhai Centre in Benin. At least one scientific publication peer reviewed journals was published: **Danbaba, N., Ukwungwu, M. N., Josiah U., Ernest, A. A. and Sossou, L**. (2013). Enhancing Farmers's Access to Technology for improved Parboiled Rice Processing and Marketability in Nigeria. *International Journal of Applied Research and Technology* 2(1):28-37. Dissemination of project results within the countries were achieved through several avenuues. As many as 12 divulgation articles were produced and distributed among stakeholders.

External factors that were deemed to have helped in the achievements were listed as the existence of institutions with the capacity (scientific, laboratory, etc.) in food science to support capacity strengthening of beneficiaries, sound policies at national government levels that support interventions, and existence of markets to purchase processed products. Slow funding cycle, i.e. transfer of funds to partners - partners justification funds/ CORAF certification - Request for funds from USAID/WA – Receipt of Funds from USAID/WA – Transfer of funds was cited as a major hinderance to project implementation and realization of higher achievements. Good planning, review, monitoring and evaluation, follow up communication and the existence of a good financial/administrative department within CORAF were listed as internal factors that contributed to the achievement of results. Weak program supervision in the field and equally weak M&E system at CORAF/WECARD Secretariat were mentioned as internal factors that contributed to hindering the attainment of higher levels of results. It was acknowledged by Program Leader that due to pressure at the secretariat, the program manager and the M&E Team were not able to adequately visit the project sites and partners at their locations.

The external factors that contributed in hindering project activities also contributed to missing of project targets. On the average about 20%-30% of targets were missed, both in numbers abd timing. The prolongation of the project duration to the end of December, 2012 helped to recover some of the missed targets. For a few activities targets were missed because the time was too short, considering the time it takes to plan and launch projects, sign contracts and transfer funds. Additionally, the project completing process needs time. Furthermore the funding cycle is time consuming and needs to be streamlined to accelerate project implementation. Corrective actions suggested to forestall future recurence include allowing for adequate timeframe for project.

The performance of CORAF Program Leaders and their contribution to the achievements of SPS Projects as assessed by country Project Leaders was discussed in general in Section 3.1. Specifically for the Post-harvest processing project, country coordinators gave high rating to the CORAF Program Manager for performance in planning, coordination, experience sharing and in monitoring and evaluation. Eighty percent (80%) of Project Leaders rated the CORAF Program Leader in the high category on a 5 project related performance (Appendix 5). The integration of institutional support (IS) activities into the Post-harvest processing project is dealt with in Section 3.3.

(iii) Research on rice resistant to the Rice Yellow Mottle Virus (RYMV).

The rice resistant to the Rice Yellow Mottle Virus (RYMV . project, with a formal title " Evaluation et déploiement de variétés de rie dotées du gène RYMV1 résistant à la panachure jaune, en Afrique de l'ouest" was originally designed to be implemented in seven countries namely, Cote d'Ivoire, Burkina Faso, Sierra Leone, Ghana, Nigeria, Niger and Liberia. Liberia did not respond to calls and was eventually excluded from the project. Niger was disqualified for political instability by USAID, leaving 5 countries in the project. The specific Objective was "*to improving the rice productivity in rice producing countries through the use of improved rice varieties containing the dominant Rymv1 resistance gene, created via Markers Assisted Selection".* The Evaluation Team visited four of the countries that implemented the project, namely, Cote D'Ivoire, Ghana, Nigeria and Burkina Faso. Sierra Leone was not included in the eight selected countries but the country Coordinator of the project did respond to the Questionnaire sent to him by e-mail. The summary information on the project in **Annex A.2, Annexes G and H** was based on Questionnaires administered to one Program Leader at CORAF, four NARS Project Coordinators and 13 project beneficiaries.

The Evaluation essentially probed into the extent to which the near-isogenic lines (NILs) (carrying the RYMV1 gene) were tested in different agro-ecological zones, the extent to which the hot spot areas of RYMV1 were characterized, extent did the selected varieties of rice with RYMV gene over performed as compared to existing varieties in the project areas, the number of farmers who received seeds and the number of stakeholders trained. CORAF Program Manager, Regional Coordinator and country Project Leaders provided, to the extent possible, figures from locations where project activities occurred and some explanations for why results were not realized in some locations.In sum, a fewl varietal lines, NIL2, NIL16, NIL54, NIL130, together with other several popular improved varieties such as the Nerica were evaluated in several agro-ecological zones in the four countries.

The NIL2, NIL16, NIL54, NIL130 were confirmed to be superior to several checks varieties both at the laboratory and in the field in Cote d'Ivoire. In Ghana agronomic and sensory tests were conducted on the NILs in comparisons with other varities and found to have quality attributes.In Sierra Leone NILs were found to be resistant to the disease under conditions of artificial inoculation and natural infection in the field. These accessions were reported to be comparable to high demand rice varieties in terms of maturation period, plant height, grain size and yield. In Nigeria Participatory Varietal Selection (PVS) trial for the NILs was successfully carried out in 2012. NIL 54 and NIL 2 recorded the highest grain yield. However, NIL 54 was most preferred by farmers among the four other NILs. These reported results

imply that the planned activities were executed. Participating NARS institutions reported several capacity strengthening activities under the project, although the results appeared not to have been made known to the CORAF Program Manager. For example, in Nigeria two permanent and pensionable staff (MSc and HND holders) were employed for the project and their salaries paid the institute. Overall there appears to be no systematic record keeping on the training component of the project, as evidenced by the several "not reported" in the Program Manager's questionnaire responses. Detailed information on other aspects of institutional strengthening in terms of laboratory and field equipment and materials are compiled as part of **Annex G**, and further discussed in Section 3.3. An impressive list of partnerships engendered in the four countries under the project is in **Annex N** and further discussed in Section 3.3.

At least two scientific publications in peer reviewed journals were published: **Alphonse BOUET , Acho Nicaise AMANCHO, Nazaire KOUASSI et Kouamé ANGUETE** : Comportement de nouvelles lignées isogéniques de riz irrigué dotées du gène de résistance (rymv1) au RYMV en Afrique de l'ouest : situation en Côte d'Ivoire. *Int. J. Biol. Chem. Sci.* 7(3): 1221-1233, June 2013 ; **M. E. Abo, A. T. Maji, M. N. Ndjiondjop, P. A. Ibrahim, J. T. Onwughalu, A. Baba1,T. Akaa and Bashiru, M.:** Evaluation of Rice yellow mottle virus (RYMV) resistant BC3F5 lines and other improved rice varieties under natural field infestation condition at Edozhigi, Nigeria (*in press*). Nigerian Society of Plant Protection Journal, 30(1). Other reports generated under the project are: Project launching report, Regional Training on Molecular Marker Assisted breeding report, Country mid-year and annual reports, Regional mid-year and annual report, and Project final report (not completed).

External factors that were deemed to have helped in the achievements were listed as a) the strong commitment of Africa Rice Center in providing foundation seeds, training project scientists and technicians accompanying the project implementation, b) cooperation among collaborators and beneficiaries. Among the reported external factors that hindered project implementation were: a) an inappropriate financial reporting system that makes it very difficult to collect evidences at the ground level in countries (from different implementing partners), transfer them to the national coordinator who in turn compile them and send to the regional coordinator who will report to CORAF, every month.This system provoked delays in money transfer and endangered activities implementation on the ground, and b) the early ending of the GFSR projects (started later than planned), c) The unstable period of 2013 to early 2014 in fund availability from USAID, and d) the change of focus between the GFSRI and the FTF initiative. Internal factors reported to have helped in the achievements of expected outcomes included the existence of strong Rice Program at NARS,

The strong experience of project coordinators at the NARS, and in some countries the participation of farmer associations. Internal factors that mitigated against achievements where listed as the low quantity of foundation seed sent to countries by Africa Rice in Sierra Leone where the Project team had to multiply these seeds before starting experiments, which delayed considerably the delivery of critical results, changing of two national coordinators (Burkina Faso and Ghana) in the course of implementation, the weak result based reporting capacity of some coordinators, and the slow processing of the procurement of Molecular Biology equipment for countries at CORAF/WECARD executive Secretariat level.

The external factors that contributed in hindering project activities also contributed to missing of two important project targets,namely, the capacity strengthening in laboratory equipment of countries (all the five institutions involved were planned to be equipped), the production of seeds for distribution to farmers (1000 farmers per country were targeted to receive seeds). Procurement of laboratory equipment and training of technicians and researchers in its use, and putting in place Innovations Platforms for the production and distribution of quality seeds were listed as possible corrective actions

to forestall future recuurence. Five-year project life was suggested as a way for allowing for setting up more realistic targets for future projects.

The NARS were reported to have participated in the drafting of the project Concept Note and in finalizing the project document. All the countries were reported to have equally participated in activities and the dissemination of results. These areas of collaboration and participation were seen to offer opportunities that could be exploited further to enhance effective program implementation and sustainability at the regional level. The integration of institutional support (IS) activities into the RYMV1 project is dealt with in Section 3.3. Although as many as 12 NARS project staff were involved in institutional capacity building during the implementation period, the level of involvement in terms of time devoted was not documented at the CORAF level. Nigeria reported that 90% of the coordinator's time was allocated to the project. The cross cutting issues of credit facilities was not specifically addressed as credit was not deemed to be part of the project. Seventy percent (70%) of Project Leaders rated the CORAF Program Leader in the high category on a 5- project related performance (**Appendix 5**).

(iv) Improving cassava planting materials

The cassava tissue culture project with formal title "Using *in vitro* tissue culture methods to preserve, multiply and distribute ACMV free cassava cuttings to farmers in West and Central Africa" was designed to be implemented in seven countries namely, Cote d'Ivoire, Benin, Sierra Leone, Ghana, Niger, Togo and Liberia.. The specific Objective was "to improve cassava productivity using quality planting materials sanitized and multiplied by *in vitro* culture methods". The Evaluation Team was able to visit three of the countries that implemented the project, namely, Cote D'Ivoire, Ghana and Benin. Sierra Leone, Togo and Niger were not included in the eight selected countries, whereas Liberia was not visited because of health status alert that restricted travels to the country. The summary information on the project in **Annex A.2 and Annexes G and H** was based on Questionnaires administered to one Program Leader at CORAF, four NARS Project Coordinators and nine (9) project beneficiaries. The Evaluation essentially probed into the extent to which the generated tissue culture cuttings were taken through critical sanitization procedures before release to beneficiaries, the extent to which the treated cuttings were distributed in the region, how many stakeholders were trained on the technology, and what other related technologies were developed.

The CORAF Program Manager, Regional Coordinator and country Project Leaders provided, to the extent possible, figures from locations where project activities occurred and some explanations for why results were not realized in some locations. Fourteen varieties were reported sanitized and multiplied in Cote D'Ivoire, Benin and Togo. Over 3, 000 in vitro tissue cultured cassava cutings were produced in these countries. Data from the other countries were not available to CORAF. At the time of closure of the project only Benin had reported to have distributed cassava cuttings to farmers. With capacity building both technicians and farmers were trained. For example, it was reported that two technicians were trained at the IITA on cleaning, micro-propagation and indexing techniques. Each of them was used subsequently used to further training of 40 technicians from west African countries in Ghana (20 Anglophones) and Côte d'Ivoire (20 Francophones) during joint USAID-ECOWAS funded trainings. Eighty-eight (88) farmers were reported trained in Benin. Information from other countries were not reported to CORAF.

These reported results imply that the planned activities were largely executed. Overall there appears to be no systematic record keeping on the training component of the project, as evidenced by the several "not reported" in the Program Manager's questionnaire responses. Detailed information on other aspects of institutional strengthening in terms of laboratory and field equipment and materials are compiled as part of **Annex G**, and further discussed in Section 3.3. An impressive list of partnerships

engendered in the four countries under the project is in **Annex N** and further discussed in Section 3.4. No scientific publications in peer reviewed journals were published. Several internal reports were produce. Among these were: Training report of the two technicians at IITA, Regional training reports (Ghana and Côte d'Ivoire), Country mid-year and annual reports, Regional mid-year and annual report and Project final report (not completed).

External factors that were deemed to have helped in the achievements were listed as a) the strong commitment of IITA in providing sanitized improved cassava varieties, participating in cleaning the local cultivars collected in different countries, and training project scientists and technicians in methods of in vitro cleansing, multiplication and in virus indexing. Among the reported external factors that hindered project implementation were: a) an inappropriate financial reporting system that makes it very difficult to collect evidences at the ground level in countries (from different implementing partners), transfer them to the national coordinator who in turn compile them and send to the regional coordinator who will report to CORAF, every month.

This system provoked delays in money transfer and endangered activities implementation on the ground, and b) the early ending of the GFSRI projects (started later than planned), c) The unstable period of 2013 to early 2014 in fund availability from USAID, and d) the change of focus between the GFSR and the FTF initiative. Internal factors reported to have helped in the achievements of expected outcomes included the existence of strong Cassava Program at NARS, the strong experience of project coordinators at the NARS, and in some countries the existence of well experienced team in tissue culture. In Ghana the plan to transform the Biotechnology laboratory of CRI into the regional Centre of Excellence for Roots and Tuber of the WAAPP program bolstered confidence and positively affected the project outcomes.

Internal factors that mitigated against achievements where listed as a) changing of the regional coordinator, the overall assessment being that the project regional coordination didn't work, b) the weak result based reporting capacity of coordinators, c) Inadequate flow of information among and between project teams, d) the fact that Innovation Platforms were not formally put in place, and e) the slowness of some countries in justifying the expenses, hence, blocking all the system and slowing down the implementation pace.

The NARS were reported to have participated in the drafting of the project Concept Note and in finalizing the project document. All the countries were reported to have equally participated in activities and the dissemination of results. These areas of collaboration and participation were seen to offer opportunities that could be exploited further to enhance effective program implementation and sustainability at the regional level. However, some countries noted that the Project Logframe was set by CORAF priour to being invited to participate in the Project. The integration of institutional support (IS) activities into the Cassava tissue culture is dealt with in Section 3.3. The cross cutting issues of credit facilities was not specifically addressed as credit was not deemed to be part of the project in the understanding of Project Coordinators. Fifty six percent (56%) of Project Leaders rated the CORAF Program Leader in the high category on a 4- project related performance (**Appendix 5**).

ANNEX A.1. B. – TIMELINE FOR THE PREPARATION AND IMPLEMENTATION OF THE USAID/WA FUNDED INSTITUTIONAL SUPPORT AND PROGRAM SUPPORT UNDER THE GFSRI AND THE FEED THE FUTURE COMPONENTS OF THE SUPPORT (2009-2014; COOPERATIVE AGREEMENT NO. 624-A-00-00037-00 AND AMENDMENTS).

Date	Activity
1. Implementation of the first phase of the Agreement	
June 7, 2009	• The Cooperative Agreement No. 624-00-00037-00 was signed between CORAF/WECARD and the USAID/WA Mission for: (1) ***a five-year (2009-2014) Institutional Support*** (IS) to strengthen the regional coordination capacity of the CORAF/WECARD Executive Secretariat and; (2) ***a two-year (2009-2011) Supplementary Program Support (SPS)*** was signed for the implementation of research and development activities in West Africa within the context of the Global Food Security Response Initiative (GFSRI) of the US Government.
June- Sept. 2009	• Draft project proposals, based on a concept note developed by CORAF/WECARDaddressing productivity and post-harvest constraints of strategic crops such as rice, sorghum, cassava, yam, and cowpea, were received in July 2009 from six prospective coordinating institutions for review. • An emergency meeting of the CORAF/WECARD Scientific and Technical Committee (STC) was held in August 2009, to evaluate the six project proposals: (i) Striga control in sorghum; (ii) yam minisett technology; (iii) rice/sorghum/millet/cassava processing; (iv) Bt. Cowpea; (v) Cassava tissue culture and (vi) Rice Yellow Mottle Resistance. • Recommendations were shared with the six Regional Coordinating Institutions to finalize the proposals for final submission by September 2009.
Oct. 2009 - Sept. 2010	• Submission of the final proposals to the CORAF/WECARD STC and approval for project initiation in October 2009 provided; • Submission of Fiscal Year 2010 Annual Work Plan and validated by USAID/WA; • Conduct of the Environmental Initial assessments and Pesticide Evaluation Recruitment of staff for project implementation • Development of sub-agreements for all projects and launching of projects in January 2010. • First money transfer to regional coordinating institutions between December 2009 and January 2010. • Subsequent transfer from the regional coordinating institutions to in country implementing institutions between March and April 2010. • Start of projects on the ground during the 2010 rainy season. • Initiation of the implementation of technology development and diffusion and capacity building activities within the framework of the six commissioned projects was initiated and the necessary Innovation platforms were put in place to ensure result delivery. Launching of Procedures for procurement of equipment
Oct. 2010- Sept. 2011	• Active implementation period of the six SPS projects under the GFSRI
Oct. 2011 – Sept. 2012	• Extension of the termination of SPS Projects under GFSRI Agreement to 31t December 2012 due to the late beginning of the activities on the ground • Submission of 2012 work plan to the USAID/WA by CORAF/WECARD, • Proposal made for the completion the activities under the GFSR initiative.

	• Initiation of the amendment of the Cooperative Agreement between CORAF/WECARD and USAID at the request of the USAID/WA mission to orient the projects to align with the USAID FtF and the ECOWAP/RAIP priorities. • De-emphasizing of cowpea, yam and cassava under the proposed FtF initiative Inclusion of livestock and dairy products as priority areas, alongside with cereals (rice, maize and sorghum) as priority commodities. • Organization of workshops to either close some of the GFSR projects (on Cowpea, Cassava and Yam) or to ensure transition of activities implemented under the GFSR initiative to the FtF initiative. • Alignment of the initial 2-year program support with the 5-year Institutional Support to extend the implementation of technical activities to end on the 30th September, 2014. • Development of a new CORAF/WECARD-USAID/WA FTF strategy
Sept.-Dec. 2012	• Adoption of the FtF Strategy by the CORAF/WECARD STC in October 2012.. • Submission of a revised Cooperative Agreement taking into account the FTF strategy was sent to USAID in October 2012 • Termination of transfers to the GFSR implementing Institutions on December 31st, 2012.
2. Implementation of the modified Agreement and preparation for the next phases	
Jan.- Sept. 2013	• Implementation of some residual activities during first quarter of 2013 at the projects level using the funds transferred during the previous trimester. • Formal signing of the revised Cooperative Agreement in March 2013 that took into account the FTF strategy. • Nomination of a new focal point at CORAF/WECARD to follow up on the new FtF initiative due to the deployment of the former GFSRI focal on the new USAID/WA funded WASP project. • Deployment of new teams to develop project proposal on Livestock (Dairy and Meat) and Biosafety projects • Re-enforcement of previous teams with new partners to develop the FTF aligned Staple Crops projects (Maize, Rice and Sorghum). • Finalization of Project and conduct of methodology workshops.
Oct. 2013- Sept. 2014	• Presentation of the newly developed FtF projects as well as the 2013-2014 Work Plan and Budget to CORAF/WECARD STC for validation. • Receipt of the STC recommendations concerning the new proposals, among them that 1. New project proposal were to be evaluated by external evaluators, due to the extent of changes brought into the previously existing projects and to the fact that new topics on Livestock (Meat and Milk) and Biosafety were coming on board; 2. New contractual arrangements had to be made with the new partners consortia. • Conduct of a second USAID/WA DQA at CORAF/WECARD. • Receipt of the USAID/WA DQA mission recommendations to the effect that a deep reform was actually necessary in the CORAF/WECARD M&E system, among which were that; 1. Data collection tool should be developed and used to collect data for all indicators. 2. A consistent data collection methodology should be developed and used for all indicators. 3. Supporting document for data reported against all indicators should be properly categorized and filed. 4. The program should institute data validation process with its sub-partners on data reported • Evaluation and validation of the six new project proposals during the period: November, 2013-March, 2014 by external evaluators of the CORAF/WECARD STC.

	• Finalization and signing of 33 new sub-agreements between CORAF/WECARD and the national coordinating institutions during the period April- July 2014. • Receipt of funds at CORAF/WECARD from the USAID/WA in April and July 2014. • Transfer of funds from CORAF/WECARD to project implementing partners between August and September 2014.

ANNEX A.1.C. – SUMMARY OF ACHIEVEMENTS OF INSTITUTIONAL SUPPORT AT THE LEVEL OF CORAF/WECARD UNDER THE GFSRI AND THE FEED THE FUTURE COMPONENTS OF THE SUPPORT (2009-2014; COOPERATIVE AGREEMENT NO. 624-A-00-00037-00 AND AMENDMENTS)

Constituent CORAF/WECARD benefiting from IS	**GFSRI Phase 2009-2012**	**Transition Phase 2012-2013**	**Feed the Future Component/Phase 2014**
Financial and Human Resource Management	Preparation of Agreements and sub-agreements Recruitment or designation of 2 Senior Program Managers and Executive Assistant and management of same	Preparation and signing of 33 sub - Agreements	Recruitment or designation of 5 staff, including 2 Finance and Admin staff, and management of the same
Resource Mobilization	Acquisition of over 10 million USD Project Funds for CORAF/WECARD	Development of a CORAF-USAID/WA FtF Strategy Development of 6 FtF Projects in Livestock and Staple Crops	
Coordination of the National Agricultural Research Systems (NARS)	Technology development and diffusion Capacity building activities within the framework of the commissioned projects Procedures for the procurement of the equipment launched	Conduct of OCA of the NARS institutions involved in FTF projects. Capacity and skills of 92 Partner individuals from 33 Partner institutions sharpened in trainings in program planning and management and in the functional requirements of the FtF.	Training of NARS staff in projects management; specialized technical areas; management of web pages related to Biotechnology and Biosafety information and databases Within the framework of the FtF project, 48 new technologies and improved agricultural practices developed in new areas.
Monitoring and Evaluation	Hosted and participated in internal and external commissioned DQA and evaluations	A robust Monitoring and Evaluation system for the FtF projects developed	A Performance Management Plan developed to plan, manage, track and document progress on performance of the FtF
Communication	Hundreds of copies of manuals developed and distributed Tens of periodicals, newsletters and peer-reviewed journals	"Indicator oriented assessment" conducted by IITA within the framework of the FTt initiative	Impact of the GFSR projects evaluated - Biotechnology and Biosafety Programs for the period 2007-2012
Knowledge Management	Documentation of technology developments and diffusion of results	Data Quality Assessment (DQA) for effective data quality controls in the implemen-tation of the FtF	A web-based knowledge management system for the FtF project developed.

ANNEX A.2– SUMMARY OF SELECTED PROJECT ACHIEVEMENTS RECORDED FOR SPS PROJECTS

SPS Project	AEZ/Administrative Regions covered	Key Targets Reached	Number of Groups or Persons Trained	Equipment and materials purchased for NARS	Documentation and Publications
Striga-Sorghum	3 Regions in Mali 3 Regions in B/F 10 Communities in Senegal	45,000 kg of seeds produced in 2 countries 16 Contracts signed 3 fold yields recorded for improved varieties	210 Seed Producers 250 Farmers in FFS 121 Private Sector Actors Trainers trained 5-fold other trainees	Various See Annex G for complete List	2 Peer-reviewed articles 9 scientific papers 2 Divulgation Manuals See Annex H for complete List
Yam minisett	3 Regions in Ghana 13 States in Nigeria 3 Regions in Togo 6 Districts in Benin	1,211,813 yam seeds produced in Ghana, Nigeria, Togo, Benin	2,629 farmers trained	Various See Annex G for complete List	2 Peer-reviewed articles See Annex H for complete List
Post Harvest	Several Regions and States in 8 Countries	3000 Manuals distributed	500 groups of beneficiaries trained (80% Females)	Various See Annex G for complete List	2 Peer-reviewed articles 10 others See Annex H for complete List
Bt Cowpea	2 Cities and 4 villages in B/F	400 persons senticized 4 Lines tested	90 persons trained in 3 countries 16 Resear-chers trained	Various See Annex G for complete List	No scientific publication, Terminal report pending
Rice- RYMV1	Several AEZs in 6 countries	Field Trials of at least 4 NILS Lines and successful crossing with others	20 Reseachers 50 persons trained in an international setting	Various See Annex G for complete List	2 Peer-reviewed articles See Annex H for complete List
Cassava Tissue Culture	Several AEZs in 3 countries	14 varieties sanitized	57 farmers in Sierra Leone supplied with cuttings 3000 cuttings produced	Various See Annex G for complete List	See Annex H for complete List

ANNEX A.3 – A CASE STUDY ON OPERATION OF MULTI COOPERATIVE- A ROUTE TO FORMATION OF AN INNOVATIVE PLATFORM

A Case Study- Striga control and enhancement of sorghum productivity in Mali: The story of a group of cooperatives of producers named USCPCS (Union des Sociétés Coopératives des Producteurs de Céréales Sèches de MARKA COUNGOU)

Objective of the USCPC Group: Supply fertilizers and seeds to members, and facilitate access to markets, equipment and training.

History:

- 2000: Facing the cotton crisis, farmers have been obliged to sell a part of cereals of the family in order to pay back the credit contacted for cotton production (inputs and pesticides)
- 2001: The local Agriculture Service facilitates the establishment of cooperatives for cereals.
- 2006: USCPCS Group is created with the support of SNV and includes seven cooperatives
- 2009: USCPCS Group has contacted IER to ask for solutions against the problem of Striga.

The USCPC Group receives support of various partners providing complementary actions

- Strengthening technical capacities of producers by the IER (CORAF/USAID project) on Striga control, and the Syngenta Foundation on Rice production
- Building organizational and management capacities, and access to credit through DERK program. The Regional Chamber of Agriculture of Koulikoro (CRA-K) has filed guarantee funds to provide access to credit while the SNV has supported the implementation of tools of monitoring-evaluation, of administrative and financial management, technical training, and facilitated the partnerships.
- Strengthening of infrastructures and equipment: Syngenta Foundation has funded the construction of shop of inputs and facilitated access to inputs.
- Development of private-private partnerships:
- BNDA (Banque Nationale de Développement Agricole) and Oikocredit have gave loans for purchasing inputs and marketing of products.
- WFP/PAM has established a formal contract for the purchase of sorghum, millet and cowpea at the USCPCS and built a warehouse
- Other private operators such as GMM (Grands Moulins du Mali), MDS (Moulins du Sahel); SODOUF (Socité Doucouré & Fils) are also loyal customers

Interventions of the IER through CORAF / USAID project:

- Establishment of demonstration plots among producers to test the effectiveness of improved sorghum varieties
- Creation and management of one cropping plot for farmer field school in each of the seven cooperatives.
- Each school field includes 25 producers who are trained weekly on all aspects of the production system
- The "striga project" facilitated partnership between the union of cooperatives (USCPS) and other USAID project name IICEM (Initiatives Intégrées pour la Croissance Economique au Mali) that helped to strengthen the technical capacities (production, market access), facilitate access to inputs and post-harvest equipment, and build a warehouse.

Lessons:

The success story of USCPCS demonstrates the relevance and effectiveness of the approach named IAR4D-IP (Integrated Agricultural Research for Development - Innovation Platform) being promoted by CORAF/WECARD and NARS and highlights the set of conditions that are necessary to boost innovation:

- Strengthen the capacity of beneficiaries through appropriate participatory approach
- Make available appropriate technologies, organizational policy options
- Building partnerships to identify functional problems of agricultural development, build adequate solutions, mobilize all necessary conditions for the implementation and sustainability of actions and solutions.

In the case of USCPCS, these conditions have created an informal and unplanned departure. The earlier integration and planning of IAR4D by CORAF/WECARD and partners in the future projects or in other contexts will improve the achievements and outcomes.

Key Facts about the USCPCS Group

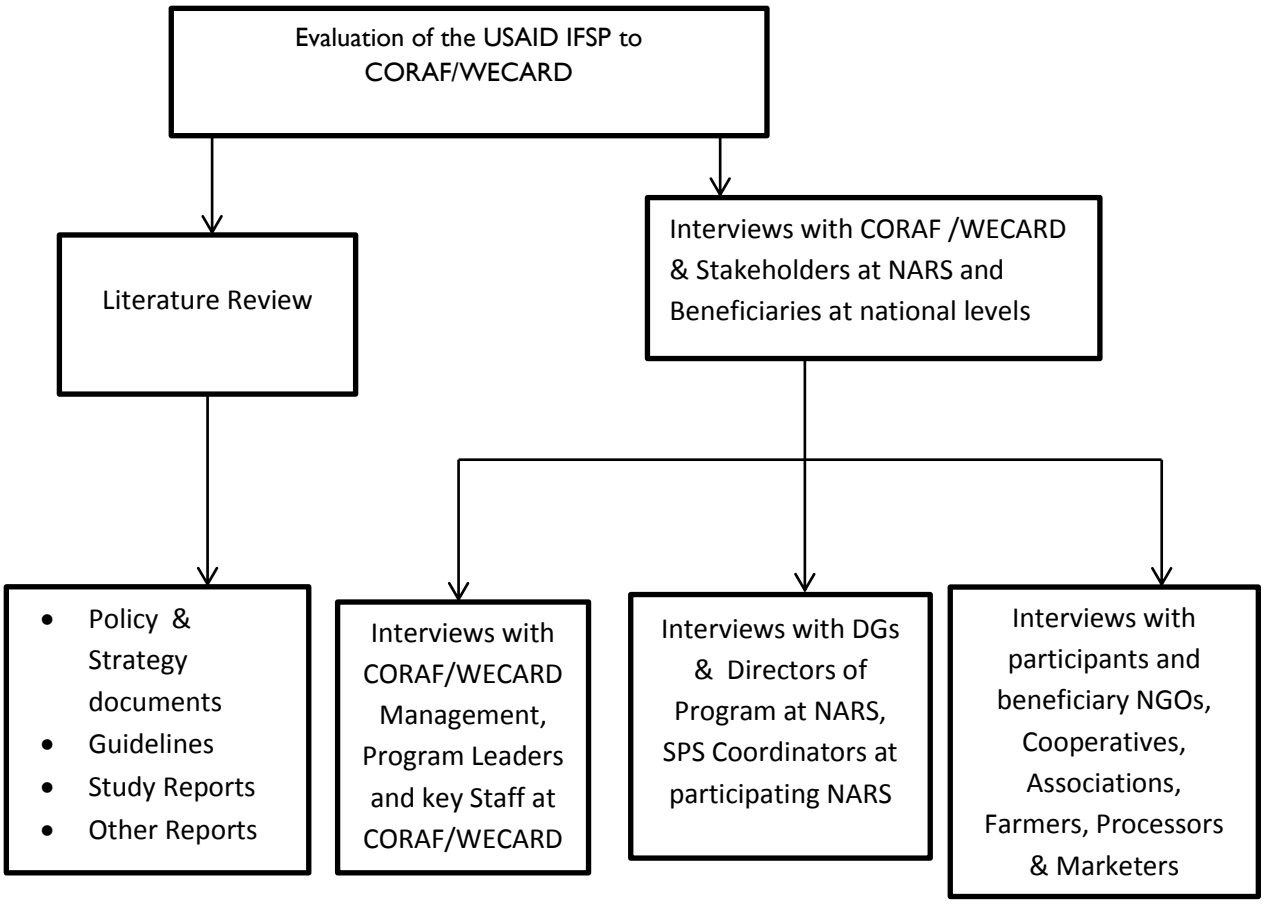
	2009-2010	**2013-2014**
Acreage of cereals grown "Ha"	2 934	7047
Proportion of sorghum within the acreage of cereals (%)	30	50
Total production of cereals (tonnes)	4 587	12 755
Proportion of sorghum in the total quantity of cereals produced (%)	42	82
Quantity of grain collected from cooperatives (Tons)	265	1255
Quantity of cereals sold to WFP (Tons)	160,2	855
*Quantity of cereals sold to other partners (Tons)	160,7	400
Price of purchasing cereals from producers (FCFA)	116 ,25	145
Price of selling cereals by **USCPCS** group (FCFA)	150	180
Average income of cereals per producer (FCFA)	15 380	91890
Turnover of **USCPCS** group (FCFA)	38 716 000	200 000 000
Gross Margin of **USCPCS** group (FCFA)	7 427 019	15 000 000
Volume of credit for marketing of cereal (buying to producers and selling to customers) (FCFA)	31 000 000	140 000 000
Volume of credit for providing inputs to farmers (FCFA)	7 575 000	27 000 000

** The total production sold during a year may include the remaining stock of the previous year.*
Yellow color: data to be provided or corrected by the technical advisor of the **USCPCS** group

Outcomes and benefits from SPS Striga-Sorghum project interventions were recorded as follows.

• As of the 2013/14 cropping season nearly 90% of the members of the USCPCS group were using improved varieties of sorghum
• The yield of sorghum increased from 700 kg/ha (local varieties sorghum) to about 2500 kg / ha (improved varieties).
• The average household income was multiplied by 5 between 2009/2010 and the 2013/2014
• The cultivation of improved varieties has increased the visibility and income of the USCPCS group of cooperatives
• Women feel that the improved variety is easier to cook and also enhances breast milk production
• The increase of sorghum incomes benefits to women because they are entirely recipients of funds generated by the sorghum plots that they cultivate.

ANNEX A. 4 OVERVIEW OF DATA GATHERING APPROACH



Improving plantain productivity and competiveness using Innovation Platform (IP) as a tool for integrated agricultural research for development: Case of ORIPAFIB in Cameroon

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Introduction

In Cameroon, plantain is among the most important food crop and is a favourite staple (Desdoigts et al., 2005 ;Temple et al., 1996). About 90 % is produced by small scale farmers with production rate estimated at 2,175,434 tons per year (FAO, 2010), making Cameroon the 8th world producer, the 4th African producer and the 1st plantain producer in the CEMAC zone. These small scale farmers and actors are faced with numerous difficulties in improving the productivity and competitiveness of plantain. These difficulties among others are due to the lack of dialogue between the main stakeholders in the value chain. It was therefore necessary to bring these stakeholders together in an innovation platform as a tool for agricultural research for development. Thus the creation of « Organisation Inter-Professionnelle des Acteurs de la Filière Bananier Plantain » (**ORIPAFIB**)

Objectives

General: Productivity, competitiveness and markets for plantain sustainably improved in Cameroon.

Specific: Innovative technologies in the plantain sector in Cameroon promoted using Innovation Platform as a tool for Integrated Agricultural Research for Development.

Methodology

The process used to put in place the IP include:
- Identify two contrasting agro ecological zones representative of plantain production in Cameroon,
- Mobilise, identify and characterise the stakeholders,
- Define the roles and responsibilities of stakeholders and facilitators, chose action sites and put in place an action plan,
-Carry out a base line survey to identify and classify the principal constraints in the plantain sector,
-Carry out capacity building for stakeholders in various domains,
-Carry out of various multi-disciplinary participatory evaluation trials of new technologies and innovations to meet the aspiration of the stakeholders,
-Carry out regular monitoring and evaluation of the activities of the IP,
-Share information and experiences within and outside the IP.

Major outputs / outcomes

9) 148 Common Initiative Groups (CIG) /Farmers' organisations beneficiaries with Knowledge increased in improved technology (PIF, IPM, ISFM),
10) Appropriation of the IP and Plantain development by policy makers and traditional rulers enhanced for sustainability through the involvement of 2 parliamentarians, 3 mayors and 4 traditional rulers in the IP.

The IP in a meeting session with Dr ASIEDU of CORAF as guest of honour

Capacity building on PIF technique

ANNEX B - SUMMARY RESULTS FROM ANALYSIS OF BENEFICIARY SURVEY

Views and Responses of End-User Beneficiaries on the USAID-Funded Projects on Staple Crops and Biotechnology implemented by NARS under the coordination of CORAF/WECARD

Kwaku Agyemang, Flore L. Nouke and Landry A. Dongmo

1. Introduction

The United States Agency for International Development/West Africa (USAID/WA) signed a five-year cooperative agreement with the Conseil Ouest et Centre Africain pour la recherché et de le developpement agricoles/West and Central African Council for Agricultural Research and Development (CORAF/WECARD) the cooperative agreement, called Institutional Support and Food Security Program (IFSP), implemented within the Global Food Security Response Initiative (GFSRI) covered two components. These were a five-year Institutional Support (IS) for CORAF/WECARD Executive Secretariat and member country research institutions in the West Africa region and a two-year Supplementary Program Support (SPS) to enable the implementation of six staple food, and agricultural crop-based biotechnology projects by selected institutions in National Agricultural Research Systems (NARS) in 11 countries in West Africa. Both components came to an end (SPS projects at end of 2012 and IS in early June, 2014. The USAID/West Africa launched a joint evaluation of the two components in the IFSP in June 2014.

Although the evaluation primarily focused on CORAF/WECARD and the NARS which implemented the SPS, it was the view of the evaluation team that as far as possible all participants of the projects should make their opinions known in the evaluation process. Therefore, information was collected at the level of the end-user beneficiaries (from project sites in countries visited by the Evaluation Team) who are considered to constitute the major chain actors in the agricultural sector. These include farmers, agricultural produce processors, marketers and agro-input dealers. Institutions linked with the agricultural sector such as NGOs and Farmer-Based Organizations (FBOs) which collaborated with the NARS who implemented the SPS projects were interviewed. It was considered by the Evaluation Team that the ultimate benefits of a strengthened NARS from support from donors should be measured from among end users such as farmers, processors and marketers who depended on the NARS for advisory services and technologies developed or adapted by these NARS.

Objective of study

The main objective of the beneficiaries' surveys study was to obtain the perspectives of the end-users to inform the conclusions and recommendations expected from the evaluation process.

2 Materials and Methods

The Study, based on on survey interviews was carried out in seven (7) countries in West Africa region, namely, Senegal, Mali, Burkina Faso, Cote D'Ivoire, Nigeria, Benin and Ghana. In the selection of project participants and beneficiaries to be interviewed a mixture of purposive sampling and random sampling were employed, depending on whether or not the Evaluation Team had access to a previously developed list of participants to serve as sample frames. Where lists were available a random sample of beneficiaries were selected using a Linear Systematic Sampling (LSS) approach. Where lists were not available, the Evaluation Team relied on Project Leaders to select beneficiaries to be interviewed. In each case, formal questionnaire instruments were administered by a member of the Evaluation Team or

by enumerators from the NARS institution traveling with the team or by him/herself where the distances were too far for the Team to visit. A minimum sample size of six (6) per project per country visited was aimed at. A sample size of six represents two times the minimum sample size of three which permits the calculation of standard deviations on continuous variables in the data set. In situations where means of groups are compared (as in mean comparisons and Analysis of Variance (ANOVA)) a sample size of six per group allows the detection of differences of 6.92 units between groups at a confidence level of 95%. Statistical tools used in the analysis of the data included frequency, cross-tabulations, means and ANOVA.

The SPSS (IBM version 20) statistical software was used. Where the ANOVA method was used the independent fixed factors considered were: Country, Project type and Sex of the Respondent. Dependent variables were level of improvements achieved in Food security, Cash Incomes, Household Nutrition, Ability to pay school fees, and Ability to pay hospital bills, coded 1-5 (1 being the highest (80-100% increase or more); 5 being the worst (<20% increase)) as recalled by the beneficiaries interviewed. Means generated from the Generalized Linear Model for any of the fixed factors (country, project type, sex) are considered to have been adjusted for the other two factors, so that a particular estimated mean (called Estimated Marginal Means, EMM) for a factor is not affected by the other factors included in the analysis. For example and EMM for "Project as a factor" is considered "adjusted" for by Country and Gender also considered simultaneously included in the analysis, and is not affected by the other factors.

A total of about 100 beneficiaries were expected to be interviewed according to the sampling scheme used. The number of beneficiaries who returned completed questionnaire or were interviewed face to face in each country is in Table 1. The sample size in Table 1 was influenced by the number of projects in a country (from 2 to 4), and the type of project and the extent of implementation. For example, the Bt cowpea project was an "experimental" one, with a key activity being a "confined trial") and not meant to reach end-user beneficiaries during the implementation period. Similarly, the cassava tissue culture project could not reach end-user level in some countries because of delays in implementation in those countries.

Table 1 Number of beneficiaries surveyed

Country	Number of Beneficiaries Surveyed
Senegal	22
Mali	11
Burkina Faso	6
Cote D'Ivoire	4
Nigeria	18
Benin	21
Ghana	10
Total	**92**

Three Results

The summary of results is presented below.

Attributes of respondents

The distribution of respondents by gender and end-user category (producers, agro-processors) is in Table 2. Overall, 92 individuals were interviewed. Sixty-two (62 or 67%) were males whereas 30 (33%) were females. Sixty-six of participants (72%) end-users were producers whereas 26 (28%) were agro-processors. Eighty-five percent (85%) of the producers were males and 15% were females. On the other hand 77% of processors were females whereas only 23% were males. Table 3 below shows the gender of respondents by type of project.

Table 2: Distribution of respondents interviewed by category of user and by gender

Category of Users	Number of Respondents	Male Respondents	Female Respondents
Producers	66	56	10
Agro-Processors	26	6	20
Total	**92**	**62**	**30**

Respondents' Connection with Projects

Thirty-seven (37 or 40%) of the respondents stated that they became part of the projects through the invitation of a Project Coordinator. The numbers of respondents who joined through introduction by friend/family, those who joined on their own compulsion and those nominated by their Associations or Organizations were 16 (17.4%), 6 (6.5%), 31 (33.7%) and 2 (2.2%), respectively. Fifty-nine of the respondents (64%) stayed with the project for the full duration (about 24 months). Another 22 (24%) stayed with projects for 6-12 months whereas 11 (12%) stayed with projects for less than six months. After the completion of the projects, 55 (60%) of respondents had stayed in contact with projects' staff for 12-18 months, from closure to the time of this evaluation. The percentages for those who stayed in contact with project staff for 3-12 months and less than 3 months were 21 (23%) and 17 (17%), respectively. Table 4 shows the mode of joining projects by gender.

Table 3: Distribution of respondents interviewed by category of user and by gender

Type of Project	Number of Respondents	Male Respondents	Female Respondents
Sorghum Striga	20	19	1
Rice- Resistant to Yellow Virus Disease	13	12	1
Post –Harvest Processing of rice, Sorghum/Millet	26	6	20
Yam Minisett	18	17	1
Cassava-in tissue culture	9	8	1
Total	**92**	**62**	**30**

Table 4: Mode of joining the SPS Projects by 92 end-user beneficiaries

Method of Joining Project	Number of Respondents	Male Respondents	Female Respondents
Invited by Project Coordinator	37	27	10
Introduced to Project by Family/Friend	16	12	4
Join Project by own Compulsion	8	6	2
Nominated by Association to Join Project	31	17	14
Total	**92**	**62**	**30**

Table 5: The Distribution of respondents interviewed by method of joining project, by duration of stay with project

Method of Joining Project	Number of Respondents	Stayed for <6 months	Stayed for 6-12 months	Stayed for 12-24 months
Invited By Project Coordinator	37	6	7	24
Introduced to Project by Family/Friend	16	3	4	9
Joined Project by own Compulsion	8	0	2	6
Nominated by Association to join Project	31	2	9	20
Total	**92**	**11**	**22**	**59**

Project Interventions in relation to profiles of respondents

The type of project interventions identified as first, second, and third rankings by respondents as having the most impact on them are in Table 6. The distribution of the first, second and third priority interventions by gender are in Table 7.

Table 6: Priority Project Interventions acknowledged by beneficiaries

Project Interventions	Number of Respondents Identifying Intervention as Number 1 relevance	Number of Respondents Identifying Intervention as Number 2 relevance	Number of Respondents Identifying Intervention as Number 3 relevance
Production Technologies	25 (27.2%)	33 (35.9%)	21 (22.8%)
Training and Knowledge Impartation	54 (58.7%)	27 (29.3%)	8 (8.7%)
Product Processing	9 (9.8%)	30 (32.6%)	52 (56.5%)
Product Packaging			2 (2.2%)
Marketing			6 (6.5%)
Introduction of livestock components			
Crop Variety Introduction	3 (3.3%)		1(1.1%)

Fifty-nine of respondents (59 or 64%) reported to have received some form of credit during the implementation of the projects as a result of participation in the project. Those who got no credit represented 12%. Twenty-two (22 or 24%) received gifts of cash, seeds, fertilizers. Twenty-eight percent (28%) of the respondents obtained credit received cash loan from banks, microfinance institutions or individual money lenders. Credit for seeds and for fertilizer was received by 30% and 5% ,respectively. Approximately 65% of those who received credit in terms of loans reported they did not have much difficulty in obtaining the loans because of their association with the SPS projects. The percentage of men and women who did not experience difficulties in accessing loans were similar (77.4% vs 76.2%)

Table 7: Distribution of respondents interviewed by Project Interventions by gender

Project Interventions	Number of Respondents who identified intervention as number 1 relevance		Total
	Male	Female	
Production Technologies	17		25
Training Knowledge Impartation	35	19	54
Product Processing	6	3	9
Products Packaging	1		1
Marketing			
Introduction of livestock components	3		3

Benefits accrued to Beneficiaries from participating in Projects

In analyzing benefits from participating in the SPS projects, responses from beneficiaries to the questions: "Would you say that the implementation of the Project positively benefited or impacted you or your household?" and "Give indication of level or scale of improvement obtained in Food Security (FS), Cash Income (CI) generation, Better Nutrition (BN), Ability to pay School Fees (FS), and ability to pay hospital fees (HF) were used. The suggested scale of improvements were: 80-100% increase, 60-80%, 40-60%, 20-40% and <20% increase" were coded 1, 2, 3, 4, and 5, respectively.

The percentage of respondents who reported that the projects they participated in positively impacted on them was 100%. None of the respondent beneficiaries reported that they were negatively impacted. For those who reported that the projects positively impacted on them, the positive impact was realized by all in the family (100% -all respondents.) For the overall benefits from participating in the projects, 90% of respondents reported improvement in food security. The percentage of respondents who reported improvements in cash incomes, household nutrition, ability to pay school fees and ability to pay hospital bills were 62%, 65% 73% and 71% (Table 8).

Table 8 Respondents reporting to have benefited from various measures of social well- being.

Status of Benefit	Food Security	Cash Income	Better Nutrition	School Fees payment	Hospital Fees payment
Benefit Realized	79 (90%)	57 (62%)	60 (65%)	67 (73%)	65 (71%)
Benefit Not Realized	13 (14%)	35 (38%)	32 (35%)	25 (27%)	27 (29%)

The improvement realized for the five measures of social well-being were expressed in terms of "doubled or nearly doubled", "above average improvement", "average improvement", "below average improvement", and "only little improvement", corresponding to 80-100%, 60-80%, 20-40%, and <20%. The distribution of the category of improvement for the improvement for measures of satisfaction is in Table 9. In Table 10 and 11 are the distribution of improved benefits types (Food Security and Cash Income) among categories (age and gender) in households.

Table 9. Scale or Level of improvement obtained by Respondents

Category of Social Benefit	Doubled or Nearly Doubled (80-100%)	Above Average Improvement (60-80%)	Average Improvement (40-60%)	Below average Improvement (20-40%)	Little Improvement (<20%)
Food security	22 (24%)	33 (36%)	25 (27%)		1 (1%)
Cash Income	2 (2%)	39 (42%)	20 (22%)	3 (3%)	1 (1%)
Better Nutrition	8 (9%)	33 (36%)	20 (22%)	7 (8%)	4 (4%)
Payment of school fees	**10 (11%)**	**42 (46%)**	**21 (23%)**	**1 (1%)**	**1 (1%)**
Payment of Hospital fees	**5 (5%)**	**45 (49%)**	**20 (22%)**	**2 (2%)**	**3 (3%)**

Table 10. Distribution of Scale or Level of improvement in Food Security by Gender (N=84)

Category of Social Benefit	Doubled or Nearly Doubled (80-100%)	Above Average Improvement (60-80%)	Average Improvement (40-60%)	Below average Improvement (20-40%)	Little Improvement (<20%)
Female	12 (14.3%)	7(8.3%)	9 (10.7%)		1 (1.2%}
Male	10 (11.9%)	26 (30.9)	16 (19.0%)		3 (3.6%)
Total	22(26.2%)	33 (39.2%)	25 (29.7%)		4 (4.8%)

Table 11. Distribution of Scale or Level of improvement in Cash Income by Gender (N=65)

Category of Social Benefit	Doubled or Nearly Doubled (80-100%)	Above Average Improvement (60-80%)	Average Improvement (40-60%)	Below average Improvement (20-40%)	Little Improvement (<20%)
Female	1 (1.5%)	16 (22.2%)	8 (12.3%)	1 (1.5%)	0
Male	1 (1.5%)	23 (35.4%)	12 (18.5%)	2 (3.0%)	1 (1.5%)
Total	2 (3.0%)	39 (55.6%)	20 (30.8%)	3 (4.5%)	1 (1.5%)

The data were subjected to a more rigorous analyses to isolate which of the three key variables (dependent variables) in the data sets, "Country where the interventions took place", "the type of project", that is the six SPS projects, and "gender or sex" of the person who was involved in project and provided the information during the interviews (sex of respondent) were the most important in explaining the variations found in the five measures of social well- being (dependent variables). The Estimated Marginal Means (EMM) generated for Country, Project and Gender of beneficiary for the five variables through the Analysis of Variance (Generalized Linear Models option) are in Table 12.

The size of the estimated mean for a level within a category shows relative strength in contributing to the variation associated with a particular measure of well being. For example, a mean (M) and standard error (SE) of 1.41 $\pm$ 0.365 for the Yam Minisett Project is considered superior to a mean of 2.70 $\pm$ 0.469 (Table 13) for improvement in Food Security measure since the mean of 1.41 for Yam Minisett Project lies between 80-100% (coded "1" in the data) and 60-80% (coded "2" in the data) improvement whereas the mean of 2.70 for Cassava Tissue Culture Project lies between 60-80% improvement (code 2) and 40-60% improvement in Food Security, as reported by the 84 respondents in the data set. A measure of whether the difference between the two projects with respect to improvement in Food Security attribute can be found in Table 13 in which information on the "test" of significance of Project in the ANOVA is provided. In the specific example of Food Security, the "Project Type" was found to have significant differences between some of the projects relative to improvement in Food Security. In this case a larger proportion of beneficiaries who reported on higher level of improvement in food security was associated with Yam Minisett more than those associated with the Cassava Tissue Culture Project. Additional comparisons on the three dependent variables considered in the analyses are provided in the discussion session of this Report.

Table 13: Estimated Marginal Means for five (5) measures of well being for Country, Project and Gender effects

Factors and Levels	Food Security Improvement	Cash Income Improvement	Better Nutrition Improvement	Ability to Pay School Fees Improvement	Ability to Pay Hospital Fees Improvement
Country					
Senegal	1.61 ± .291	2.44 ± .253	2.53 ± .397	2.56 ± .283	2.00 ± .303
Mali	3.10 ± .338	3.52 ± .369	4.19 ± .573	3.13 ± .359	2.52 ± .385
Cote D'Ivoire	2.77 ± .418	3.16 ± .358	1.88 ± .510	1.64 ± .421	2.82 ± .755
Burkina Faso	2.17 ± .415		2.81 ± .624	3.40 ± .705	2.82 ± .755
Benin	2.84 ± .344	2.27 ± .289	2.13 ± .428	2.28 ± .333	2.67 ± .357
Ghana	1.90 ± .365	2.54 ± .306	2.05 ± .461	2.23 ± .356	2.67 ± .382
Nigeria	1.81 ± .245	2.23 ± .220	3.11 ± .309	2.30 ± .240	2.61 ± .257
Project					
Striga-S'ghum	2.56 ± .292	2.15 ± .570	1.99 ± .481	2.17 ± .322	2.48 ± .345
Rice RYMV1	2.25± .305	2.73± .221	2.77± .369	2.90± .287	2.44± .307
Post-Harvest	2.66 ± .231	2.62 ± .205	2.42 ± .302	1.91 ± .242	2.73 ± .259
Yam Minisett	1.41 ± .365	2.35 ± .266	2.52 ± .463	2.27 ± .362	1.69 ± .388
Cassava Tissue	2.70 ± .467	3.63 ± .350	3.16 ± .586	3.28 ± .459	2.97 ± .492
Sex of Beneficiary					
Male	2.40 ± .176	2.80 ± .145	2.71 ± .161	2.44 ± .149	2.62 ± .159
Female	2.23 ± .125	2.59 ± .171	2.63 ± .228	2.57 ± .194	2.31 ± .208

Table 14. Generalized Linear Model Tests of Significance for Factors on Five Measures of Well-being of Project Beneficiaries

Factor used in Model For Analyses	Food Security Wald Chi sq.	df	Significance	Cash Income Wald Chi sq.	df	Significance	Better Nutrition Wald Chi sq..	df	Significance	Ability to Pay School Fees Wald Chi sq.	df	Significance	Ability to Pay Hospital Fees Wald Chi sq.	df	Significance
Mean (Intercept)	233.7	1	0.000	388.6	1	0.000	332.0	1	0.000	325.0	1	0.000	385.3	1	0.000
Country	40.0	6	0.000	22.7	5	0.000	24.6	6	0.000	9.1	6	0.166	10.4	6	0.109
Project Type	8.58	4	0.075	29.4	4	0.000	10.5	4	0.033	19.7	4	0.001	8.7	4	0.070
Sex of Respondent	0.16	1	0.694	1.56	1	0.215	0.082	1	0.775	0.384	1	0.536	1.165	1	0.280

Figures presented in Table 14 show that there were significant differences (P<0.001 level) among Countries for most of the five measures of well-being of beneficiaries (except for ability to pay school fees). Similarly Project type was also significant for all measures except for Food Security which was only significant at P=0.07. Gender or Sex of beneficiary was not significant for any of the 5 measures (all with P>0.20). Thus, although the Estimated Marginal Means appeared to be more favorable for females for all of the measures except for ability to pay school fees, the difference between females with respect to all the other attributes were not statistically different.

Sense of Empowerment among end-user beneficiaries

The percentage of respondents who reported that their participation in the projects contributed to improvement in measures of empowerment (improved self-esteem, feelings of improved usefulness to household or community) was 98%. The most frequent measure of empowerment was "increased confidence in them-selves (74%), followed by "ability to make payments due" and "increased status in the community". Eighty-two respondents (89% who reported to have benefited from the projects also identified other project participants who are known to him/her personally also benefited participating in the projects.

Knowledge and experience sharing among participants

Forty-three respondents (43 or 49%) reported knowing of the existence of Innovation Platforms, Discussion Groups or Business Groups formed form the projects that involved current and former project beneficiaries. Forty-two (42 or 46%) of respondents reported participating in one or more such groups after the closure of the projects. Most respondents (76%) who reported participation in platforms and discussion groups stated that they held capacities as executives (11%) and 35% as general members.

Future Outlook of Respondents

The most cited roles played by respondents in the SPS projects included created linkages among membership in the group and liaising with other groups (91%), sharing experience or exchanging experiences (3%). For all participants in the projects, 93% reported that they would be "very interested" in all participating in similar projects in future. The respective percentage who reported "interested" was 7%.

4. Discussion and Recommendations

The Study reported in this paper was conducted as part of an evaluation of an USAID/West Africa funded Projects implemented by selected NARS in the region through a grant to CORAF/WECARD. Although the evaluation primarily focuses on CORAF/WECARD and the NARS which implemented the SPS, the evaluation was expanded to include otherl participants of the projects to find out the opinions of end-user beneficiaries who are normally outside of the research institutions. These end-user beneficiaries were farmers, agricultural produce processors and agro-input dealers. Associations or Organizations based on producers and agro-processors were also interviewed through informal surveys, in addition to the 92 beneficiaries interviewed with structured questionnaire instrument. The result that sixty-two (62 or 67%) were males 30 (33%) were females indicates that the SPS projects designed to target both men and women achieved its target, although a best practice of reaching as many women was not attained. A few of the group interviews with Associations or Organizations indicated that in most of the countries where the projects were implemented there are some level of cultural and religious inhibition on women to engage in some farming activities, therefore

projects based on farming may attract fewer female participants. This view seemed to have been validated by the fact that sixty-six of participants (72%) end-users were producers and 26 (28%) were agro-processors, eighty-five percent (85%) of the producers were males and 15% were females, in contrast to the 77% of processors being females. Therefore, future projects that are farming based and requiring women or girls participation would need to include special components that may be more suitable or attractive to females.

The observation that the SPS Project Leaders located within NARS played significant roles in the project implementation by being responsible for introducing 40% of the beneficiaries, and as many as 64% staying throughout the 18-24 months duration points to best practices in project implementation in the field. The fact that as many as 55 project beneficiaries (60%) continued to stay in touch with Project Leaders for 12-18 months after closure of the projects is a good basis for maintaining continuity and sustainability with project interventions as cutting edge of agricultural-based development in the regions where the project interventions took place.

The six SPS Projects together promoted a few selected technologies but each technology with few components, and hence making a range of interventions available to the end-user beneficiaries. Production-based technologies, training and knowledge impartation were selected by 58% and 83% of beneficiaries, respectively, as their two topmost interventions they appreciated. Similarly, 82% of beneficiaries had selected product processing as their best second and third best interventions they appreciated (Table 7). These findings suggest that multi-component technologies may better attract beneficiaries than single component technologies as sole intervention to be presented to beneficiaries.

Although there appeared to be a disconnect between the donor (USAID) and the Program/Project Leaders at CORAF and NARS with regards to the level of credit as a cross-cutting issue to be tackled in the project implementation (many Leaders did not feel credit was part of project vs. USAID evaluation question on how far was the issue addressed) one or two projects, particularly the Post Harvest project, managed to introduced notions and practice loan credit into the projects and evidently was appreciated well by the beneficiaries who managed to secure bank facilities for their enterprises as expressed by one Mrs. Hannah Giya, a widow from Doko village, Niger State of Nigeria stated: *"It was very easy as the project coordinator introduced our cooperative to the bank. All of us that applied for the loans were given the loan as the project coordinator stood as guarantor for all of us. The loans were used to buy par boiler and some paddy we have all paid back the loans"*

Results presented in Table 8 shows that 62-90% of the beneficiaries reported having received benefits in terms of improvement in food security, cash income, better nutrition at household levels, ability to pay school and hospital fees. These benefits while globally acknowledged by all beneficiaries, the scale of benefits appeared to have differed among beneficiaries in different countries participating in different SPS Projects (Table 12 and 13), the results showed that women and men benefitted at the same level independent of Project type and country where the interventions occurred.

The high percentage (98%) of respondents who reported that their participation in the projects contributed to improvement in measures of empowerment (improved self-esteem, feelings of improved usefulness to household or community) points to the effectiveness of the SPS Projects at the field level. The fact that 82 (89%) of the respondents who reported to have benefited from the projects also were identified other project participants who are known to him/her personally also benefited participating in the projects, demonstrate the broad nature of benefits brought to most of the beneficiaries. Several beneficiaries spoke to the fact they were truly empowered from the participation in the SPS Projects. In words of Mrs. Hannah Giya who could not hide her excitement *"I was nominated as a group leader of the Doko Women Rice Processors Group. The project has helped me in coming closer to the District Head, NCRI, Church Leaders and women groups in other villages around mine. Our business has also improved as our rice is*

better prices in the market than before. I was also to host my daughter's wedding successfully since I am a widow".

From Bamako, Mali, one Mrs Tangara, an agro-processor described her experience as follows: *For me participating in the project (Post-Harvest) brought me many benefits and experiences. It also empowered me in several areas of life. Among them: The Project enabled me to get on a plane (first time in my life) to attend a meeting (Project Workshop) of this magnitude in Dakar, Senegal. I was so amazed to attend the meeting with the great persons like scientists, agro-dealers and other great actors. To me the project came at the right time because thanks to the Project, I visited the Songhai Center in Porto Novo, in Benin and learned successfully the process of transformation of para-boiled rice. Upon my return to Mali, I bought a steamer to produce parboiled rice. Today I can consider myself as fully independent woman, economically. I wish that projects of this kind continue to multiply the empowerment of women as I have become".*

The voices and perspectives of end-user beneficiaries assembled in this Paper and the figures presented in the various Tables show that the SPS Projects impacted positively on people at the grass roots who are served directly by the NARS, which were important CORAF/WECARD partners in the USAID-funded IFSP Project. The Results show a good example of a Regional Donor Agency Project targeting a regional organization whose clients/partners operate at country level and which in turn have their clients at grassroots level. The grassroots beneficiaries in their own words acknowledged the important impacts that the Projects had made in their lives.

Extending the evaluation to the end-user beneficiaries brought to light the many lessons and experiences which would not have been captured otherwise. It is therefore recommended that this kind of approach of including all possible beneficiaries in project evaluations must be institutionalized by the donor agency (USAID). M&E Units within NARS should also set up routine or occasional monitoring of end-user beneficiaries and their enterprises. CORAF/WECARD should make provisions in their project formulation to get support that can contribute to monitoring and evaluation of grassroots activities.

Acknowledgments

We are grateful to the Africa Lead II Project for funding the evaluation. The leadership of the Project and the technical and administrative staff who facilitated our trips to the various countries are greatly appreciated. We are indebted to the Senior Management of CORAF.WECARD and Directors of NARS visited.

References

IBM SPSS Statistics, Version 20

ANNEX C -- TERMS OF REFERENCE/EXTRACTS FROM SoW

FINAL EVALUATION OF INSTITUTIONAL SUPPORT AND FOOD SECURITY PROGRAM (IFSP)

I. BACKGROUND INFORMATION

A) Identifying Information

1. Program:	**Institutional Support and Food Security Program (IFSP)**
2. Award Number:	624-A-00-09-00037-00
3. Award Dates:	06/08/2009 – 06/07/2014
4. Funding:	$7,000,000
5: Implementer:	CORAF/WECARD
6: AOR/Alternate AOR:	Jorge Oliveira/Elizabeth Brown

B) Development Context

1. Background

The five-year cooperative agreement (2009-2014) between the *Conseil Ouest et Centre Africain pour la recherche et le developpement agricoles*/West and Central African Council for Agricultural Research and Development (CORAF/WECARD) and the USAID West Africa Mission is in its final year with two components: A five year Institutional Support (IS) and a two-year Supplementary Program Support (SPS) both with a total budget of US $7 million. The agreement was to support CORAF/WECARD in the implementation of Comprehensive Africa Agriculture Development Program (CAADP)'s Pillar 4 (Agricultural Research) and the Economic Community of West African States (ECOWAS)'s Agricultural Policy (ECOWAP).The support from USAID helped strengthen CORAF/WECARD to effectively play its role in coordination, advocacy, knowledge management and capacity strengthening of the National Agricultural Research Systems to implement CAADP's Agricultural Research pillar.

Under the SPS, six projects were supported: (i) integrated *Striga* control in sorghum, (ii) improving the yam mini-sett technology, (iii) agro-processing in rice, cassava, sorghum/millet products, (iv) Bt-cowpea research, (v) improving cassava planting materials and (vi) research on rice resistant to the Rice Yellow Mottle Virus (RYMV). Each of the six projects had built-in cross-cutting Institutional Support (IS) and capacity strengthening of CORAF/WECARD's Executive Secretariat as well as its constituents in Financial and Human Resources Management, Resources Mobilization, Coordination of the National Agricultural Research Systems (NARS), Monitoring and Evaluation, Communication and Knowledge Management.
It was planned that for the two year SPS, additional funding be solicited from other sources for its continued implementation along with the five year IS program. After the project started in 2009, the initial contract was reviewed to align the 2-year SPS with the Feed the Future (FtF) value chains. The two year SPS component also started late, slightly extended into 2012 with the initial funding and ended in December 2012.

During the project period, integrated *Striga* control practices were demonstrated to farmers and seeds of *Striga* tolerant sorghum varieties supplied to farmers. New seed entrepreneurs were developed for sustainable supply of seeds. The capacities of farmers and entrepreneurs were strengthened in the techniques and practices of producing and marketing yam seeds. Regional protocols for improving post-

harvest quality of rice, sorghum/millet and cassava were developed and disseminated to target groups, mostly women. Capacities of these groups were strengthened and access to equipment and credit facilitated. A technology for Bt-Cowpea confined trial was made available to the NARS. Tissue culture laboratory equipment was provided to NARS alongside the strengthening of their capacities in coordination, Monitoring and Evaluation (M&E) and mass production of cassava planting materials. Rice Yellow Mottle Virus resistant genetic lines were advanced for testing and dissemination to improve rice productivity.

Now that the project has come to an end, USAID/West Africa is seeking the service of Africa LEAD, a USAID funded activity designed to support capacity building under the (FtF) Initiative and CAADP to conduct the final evaluation of IFSP. The outcome of this performance evaluation will help the Mission to make an informed decision on a follow on for the IFPS project.

2. Target Countries

CORAF's IFPS focused its activities in the following West African countries: Ghana, Nigeria, Togo, Benin, Senegal, Mali, Niger, Liberia, Cote d'Ivoire, Sierra Leone and Burkina Faso.

CORAF/WEACARD's member countries: eight in the Sahel, eight coastal countries and five in central Africa

Activities under SPS were divided in two components; staple crops and biotechnology. The staple crops program was further divided in three themes; enhancing productivity, promoting agricultural inputs and promoting post-harvest technologies. On Agricultural Productivity, selected NARS and other institutions were contracted to conduct multi location variety trials with Germ Plasm material developed by public institutions in West Africa and private seed companies within and outside the region. On Agricultural Inputs Promotion, CORAF supported on-farm demonstrations in Ghana, Nigeria, Togo, Benin, Senegal, Mali, and Burkina Faso and *Striga* tolerant sorghum varieties were tested in Mali, Senegal, Burkina Faso, and Nigeria. On Promotion of Post-Harvest Technologies, rice activities were implemented in Senegal, Mali, Liberia, Ghana and Nigeria; sorghum/millet processing activities in Senegal, Mali, Niger, Burkina Faso and Nigeria, and cassava processing activities in Ghana, Nigeria, Benin and Togo.

The biotechnology program was also divided into three themes: (i) promotion of molecular technology; (2) development of tissue; (3) and facilitating the adoption of Bt-Cowpea. Biotechnology program activities were conducted in Ghana, Nigeria, Niger, Benin, Togo, Liberia, Sierra Leone and Côte d'Ivoire.

C) Intended Results

The IFSP aligns with the Mission's draft Regional Development Cooperation Strategy Economic Growth objective, and is directly linked to Intermediate Results 2.1 Increasing Regional Integration, and 2.4 Increased Agricultural Productivity. The main objective of IFSP was to improve staple crops productivity at all levels through the promotion of appropriate technologies and to create an enabling environment for cooperation between key staple crops stakeholders. CORAF/WEACARD was responsible for coordinating and monitoring the effectiveness of mechanisms for technology dissemination and the progress of indicators for the productivity and competitiveness of the agricultural sector in the beneficiary countries. More specifically, it was responsible for: (i) managing the regional program and the national components of the program; and (ii) compiling and synthesizing information generated by regional and national systems and monitoring and evaluating program activities.

Overall, the following results were expected to be achieved through the five-year timeframe:

a) 500 producer groups in at least 10 countries to have received capacity strengthening to respond to their relevant needs, including linkage to technology, input sources, credit and markets;

b) At least 10 new market-responsive varieties released in the sub-region (selected among rice, millet, sorghum, cassava, yam, plantain, cowpea);

c) 400 producer groups in at least 10 countries to have adopted improve ***inland valley*** management practices for multiple cropping and support promotion using partnership arrangements;

d) 400 producer groups in at least 10 countries to have adopted integrated crop management practices to control pest and diseases in selected priority staple crops;

e) 400 producer groups in at least 12 countries are using modern agricultural inputs (fertilizers, seeds and plating material, labor-saving equipment);

f) A sub-regional networking facility in product quality improvement and marketing established at CORAF/WECARD;

g) A wide distribution of *Rymv1* varieties to at least 1000 farmers, in at least 10 West African countries for rice production and rice seeds multiplication. This will be achieved through the improved capacity of the sub region's rice breeders in *Molecular Markers Assisted Breeding* (MAS) technology;

h) An improvement of the laboratory capacities of participating institutions in basic molecular biology equipment for MAS;

i) The negotiation of an agreement for the transfer of Bt- Cowpea in West and Central Africa;

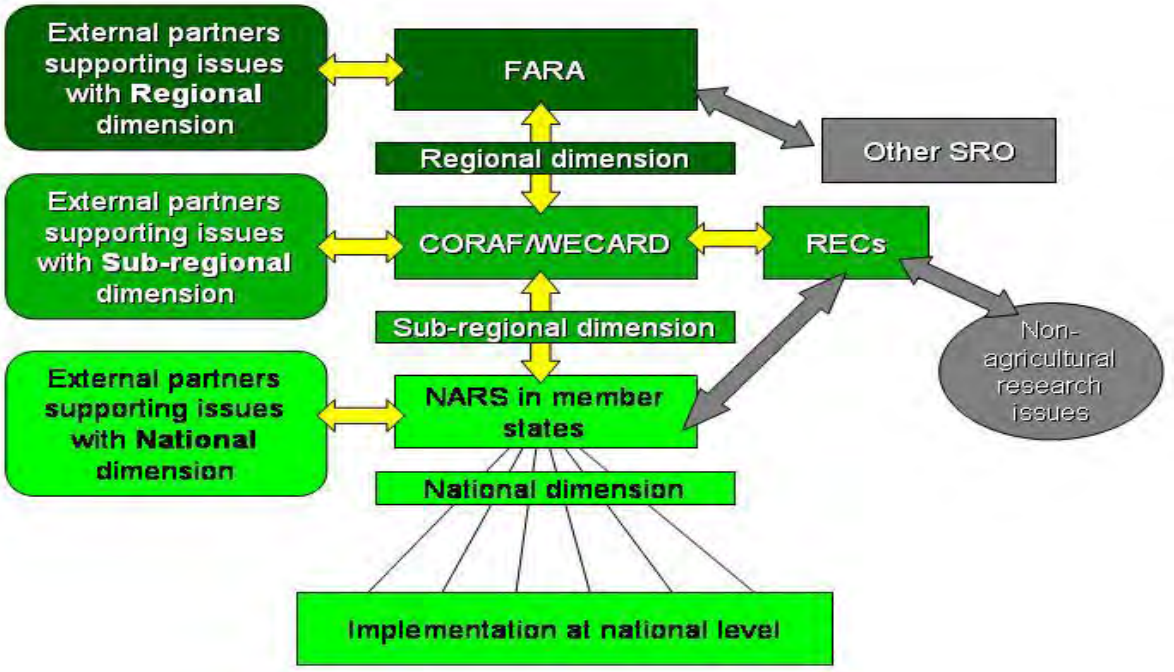
j) The testing and evaluation in at least 2 West and Central African countries of available Bt- cowpea varieties;

k) The reinforcement of the technical and infrastructural capacities of participant government entities in Biosafety and

l) The production and distribution, in at least 5 countries, of quality planting material (cuttings), produced by combining *in vitro* tissue culture and other multiplication techniques, necessary to plant 1000 ha of cassava that can be used subsequently for more cutting production and wider distribution.

D) Implementation

CORAF/WECARD is one of the four Sub-regional Organizations (SROs) in Africa under the Forum for Agricultural Research in Africa (FARA), which brings together 22 National NARS. CORAF works closely with the West Africa Regional Economic Community (REC), ECOWAS, to implement IFSP, CORAF assembled a consortium of partner organizations with specific skills and roles to play. CORAF specifically engaged in the oversight and management of programs at the sub-regional level whereas implementation of programs activities were conducted through the NARS whose stakeholders represent major beneficiaries of those programs. The illustration below shows how sub regional research was coordinated, managed and implemented down to the National level.



E) Existing Data

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

- The cooperative agreement and program description;
- Annual work plans (FY09-2014);
- Performance Management Plan (PMP);
- Quarterly and Annual reports
- USAID reports on field trips/site visits
- Minutes/reports of stakeholder meetings and consultations
- Baseline and midline data collection reports
- National data sources
- FtF Population-Based Survey Any other suggestion

In August 2013, USAID/West Africa undertook a data quality assessment of key standard indicators being used to monitor performance across IFSP's implementing partners. The report findings, conclusions, and recommendations provide useful insights into the status of performance management for the **IFSP** program.

II. EVALUATION RATIONALE

A) Evaluation Purpose

The objective of this evaluation is to document the results from all six SPS projects and the integration of the cross cutting IS component. The interest of this study is thus to capitalize on the achievements of the projects as the Mission is planning on a follow on activity to this project.

The evaluation must achieve the following three objectives:

- Evaluate the achievements generated by the intervention of the projects;
- Evaluate the best practices and the impact (as feasible since this is not an impact evaluation) on the direct and the indirect beneficiaries (attitude, technique, technological, food production, income generation, institutional, etc.); and
- Provide information on partnerships, networking and opportunities generated through the project.

B) Audience and Intended Uses

USAID, implementing partners, USG program partners, NGOs, and participating host countries government are the primary stakeholders for the evaluation. Bilateral USAID Missions in West Africa and USAID/Washington will take a particular interest in any lessons which could be disseminated to other missions with similar programs. NGOs and multilateral organizations operating in this sphere would also benefit from reviewing evaluation results, which may help identify implementation challenges and best practices. USAID Missions in ECOWAS countries will be particularly interested in the findings of this evaluation and how their respective countries benefitted. The findings will enable USAID Missions and other national level stakeholders to determine where progress was made and what gaps still exist to develop the best course of action going forward in collaboration with the USAID/WA program.

C) Evaluation Questions

LEAD must answer the following questions in the evaluation.

1) What factors (both internal and external to the program) helped or hindered the achievement of the program's expected outcomes as detailed in the cooperative agreement?

2) What adjustments, corrective actions, and/or areas for improvement are needed to ensure progress towards achieving expected results in similar future programs?

3) What specific opportunities exist to enhance effective program implementation and sustainability at the regional level (in particular in relation to relevant bilateral USAID programming), and to further strengthen the regional cohesive approach of the program?

4) To what extent did IFSP interventions address cross cutting issues on credit availability and gender-based economic development constraints in different focus countries?

5) Each of the six projects had built-in cross-cutting institutional and capacity building activities; to what extent were the IS activities integrated into the SPS?

III. EVALUATION DESIGN AND METHODOLOGY

A) Evaluation Design

LEAD's consultants are required to gather information on the program, analyze that information, and provide answers to the key evaluation questions.

LEAD's conceptual approach used to answer these questions must focus on actual results and targets, key informant interviews, site visits, and consultations with relevant stakeholders.

LEAD's consultants will examine the current and past performance of **IFSP** from the start of the agreement through the evaluation period. The consultants should have no direct association to the project or to any of its implementing partners. While the evaluation should address past performance, LEAD must also provide forward-looking recommendations on possible strategies for improving future regional programs.

LEAD's consultants are to work in conjunction with other team members to plan and implement the proposed evaluation. USAID/West Africa and the full evaluation team will be involved with design, planning, and logistics, but the consultants are expected to provide the leadership and direction, as well as having the final responsibility for all evaluation duties and deliverables.

B) Data Collection and Analysis Methods

LEAD's consultants are required to evaluate this multi-faceted program in a timely manner in some of the focus countries; Ghana, Nigeria, Togo, Benin, Senegal, Mali, Niger, Liberia, Cote d'Ivoire, Sierra Leone and Burkina Faso. LEAD's evaluation team in consultation with USAID will determine the most appropriate number of countries to visit as per the concentration of activities and/or the importance of the activities implemented as well as relation to USAID regional FTF focus countries (Ghana, Senegal, Mali and Liberia). Country selection will take into account both cost-effectiveness and level of activity importance/relevance for evaluation purposes and follow-on program.

Data requirements, collection methods, and required analyses will be determined by LEAD in collaboration with USAID/West Africa and under the direction of the LEAD's independent team leader (not affiliated with USAID or the program). Consistent with ADS 203.3.1.6 guidance on evaluation methodologies, a combination of **quantitative** (where appropriate in this evaluation) **and qualitative methods** in data collection and analysis must be employed by the LEAD in the process. Details on final datasets, collection methods (including interview questions, questionnaire form and key informants to be interviewed), and analytical framework(s) will be approved by the COR/USAID/West Africa as part of initial work plan approval. LEAD must disaggregate data by sex, where relevant and level of intervention (regional; national/country; and sub-national).

LEAD must begin its data collection with a desk study of existing documents and information, followed by consultations with CORAF staff in charge of the project and key stakeholders in the region to further refine the implementation approach. This will be followed by interviews of partners, stakeholders, and beneficiaries in the program's selected countries, and potentially other countries as appropriate. Details on these illustrative approaches and the evaluation questions that they are anticipated to help answer are provided in the table below:

Data collection and analysis methods	Question(s) answered
Desk study: Review existing documents and information listed above. Work with USAID/West Africa to acquire additional documents and information as needed, and prioritize primary data collection where gaps remain.	1, 2, 4, 5 and evaluation planning
Internal Consultations: Meet or conference call with key stakeholders in West Africa for recommendations on specific areas of consideration. This is separate from the survey or interview process by which data may be collected among some of the same stakeholders.	1, 2, 3, 5 and evaluation planning
External interviews and focus group discussions: In-person interviews and focus group discussions with program implementing partners, collaborating partners, program beneficiaries, and USAID bilateral missions will allow for a range of perspectives and give depth to the evaluation. Such consultations will be limited to individuals and organizations in the program's target region, to be prioritized based on mission and other stakeholder consultation, drawing from the range of stakeholders the program is engaged with. USAID/West Africa will provide a preliminary list of stakeholders to the evaluation team. Stakeholders may include but are not limited to: (a) implementing partner headquarter and field staff; (b) cooperating country government staff, focusing on the selected IFSP target countries and those directly involved; (c) staff and implementing partners of USAID/West Africa and other USAID missions and programs which have engaged in IFSP; (d) staff of multilateral organizations and development partners; (e) national and local NGOs and community representatives. The decision on whether to conduct an interview or focus group depends on a variety of factors including the type of questions and analyses planned, individual and cultural norms and preferences, and efficiency. Where a focus group is suitable, it may be appropriate to separate men and women, or participants from different countries and/or organizations. Different types of questions will need to be tailored to the specific target stakeholder group. The data will be analyzed by using transcription and/or coding methods as appropriate. Targeted follow-up phone calls with stakeholders outside the priority geographic region may also be utilized. On-site visits to areas of IFSP demonstration activities will enable the evaluation team to meet with and interview direct program beneficiaries, verify activity outputs and outcomes, and observe first-hand program impacts.	All questions plus Evaluation planning

c) *Methodological Strengths and Limitations*

Methods	Strengths	Limitations
Desk study	• Provide valuable information on substantive issues and generate a list of questions including key stakeholders that can be used in other methods. • Help to focus efforts and prioritize issues and gaps	• Time consuming • Depends on resource availability • Lack of consistent data collection • Limited baseline data
Consultations	• Provide valuable information	• Depends on availability of key

	on substantive issues and generate a list of questions including key stakeholders that can be used in other methods. • Provide greater depth and insights and general surveys	stakeholders • Quality/reliability of data
Individual interviews	• Potentially data rich, detailed answers	• Might need to interview through translators (possible loss of meaning and data richness) • Might have informants' bias
Focus group discussion	• Can generate a broader range of ideas and responses. • Can include a greater number of participants in less time and result in rich discussion.	• Might need to conduct discussion through translators (possible loss of meaning and data richness) • Some respondents may dominate in answering

IV. EVALUATION PRODUCTS

A) Deliverables

The following deliverables will be submitted to USAID/West Africa. The timelines for submission will be agreed upon during the team planning meeting (need to start this evaluation as soon as possible to be able to decide on the next phase before September 30, 2014, I suggest the deliverables be received by August 30th):

1. An Evaluation work plan and timeline-to be prepared during team planning in consultation with the USAID regional office.
2. A detailed report outline- agreed upon the team meeting.
3. Questionnaire/guidelines for conducting interviews.
4. Debriefings- the team will debrief the regional Mission and implementing partners on the findings, conclusion and recommendations before leaving Accra.
5. First Draft evaluation report to include all the components of the final report. USAID/West Africa will provide written comments on the draft to the evaluation based on the agreed time.
6. Second Draft for Technical Evaluation and Monitoring Squad (TEAMS) peer review.
7. Final Evaluation Report addressing the comments from USAID/West Africa and TEAMS on the draft. The team will deliver the final report electronically.
8. Provision of all raw evaluation data sets to USAID.

*B) **Reporting Guidelines***

The final evaluation report must follow the guidelines stated in the USAID Evaluation Policy (http://www.usaid.gov/evaluation/policy). Specifically, the report must adhere to the following quality criteria for the preparation of evaluation reports, as outlined in Appendix I of the Evaluation Policy.

- The evaluation report should represent a thoughtful, well-researched and well organized effort to objectively evaluate what worked in the project, what did not and why.
- Evaluation reports shall address all evaluation questions included in the scope of work.

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

The How-To Note on Preparing Evaluation Reports (http://www.usaid.gov/sites/default/files/documents/1870/How-to-Note_Preparing-Evaluation-Reports.pdf), which is based on the Evaluation Policy guidelines, provides current good practice in preparing evaluation reports for USAID. The final evaluation report should follow the basic layout outlined in the USAID Evaluation Report Template (http://usaidlearninglab.org/library/evaluation-report-template).

The report must be organized using the following sections:

- Executive summary (No longer than 2 pages)
- Table of contents
- Evaluation purpose and questions (About 1 page)
- Project background (About 1 page)
- Methods and limitations (About 1 page)
- Findings (About 7 pages)
- Conclusions (About 5 pages)
- Recommendations (About 3 pages)
- References
- Annexes, including but not limited to the evaluation statement of work, detailed description of the evaluation design and methods, copies of data collection tools, a list of information sources (including documents reviewed, sites visited, and key informants), and disclosure of any conflict of interest by evaluation team members.

The final version of the report must be submitted to USAID/West Africa electronically in Microsoft Word. The report must be no longer than 20 pages (excluding table of contents, references and annexes), written in English, single-spaced in Gils Sans MT, size 11 type font. All data and materials are to be surrendered to and will remain the property of USAID.

V. TEAM COMPOSITION

LEAD's evaluation team must be comprised primarily of three consultants, as follows:

1) Team Leader- agro-economist/agriculture expert
2) Assistant Team Leader/Evaluation Specialist
3) Evaluation Specialist/Administrative and Logistical Support (local consultant)

The evaluation will be led by the "**Team Leader**" and supported by subject matter experts (referred to as Evaluation Specialists) from the team leader's home organization and/or local organizations. The Team Leader will be responsible for the overall implementation of the evaluation and ensuring that all expected tasks and deliverables are achieved on time and of high quality. S/he must be fluent in English and French and must have a master's level degree with 10 years of technical experience in in the domain of agricultural research and development programs with a good working knowledge of the agricultural stakeholders in the sub-region; good experience in consultative processes and working with partnerships and diversified institutions. S/he must have significant professional experience coordinating similarly complex evaluations, and leading evaluation teams. USAID may request to see examples of past evaluation reports under the direction of the proposed evaluation team leader. The candidate must have exceptional organizational, analytical, writing and presentation skills. S/he will oversee the overall drafting of the evaluation framework, including methodology determinations; organization of calendar/travel/meetings; overseeing the desk study, interviews, and other data collection; and analyzing the data with input from team members and USAID/West Africa to draft the evaluation report.

The **Assistant Team Leader/Evaluation Specialist** will support the team leader in the implementation of the evaluation. S/he should have significant professional experience implementing similarly complex evaluations involving multiple stakeholders. The candidate must have exceptional organizational, analytical, writing and presentation skills. S/he must be fluent in English and French and should have a master's level degree with 8 years of experience in a relevant analytical evaluation field. It would be highly desirable to have knowledge and/or experience working with USAID rules, regulations, and procedures. S/he will contribute to the overall drafting of the evaluation framework and participating in the desk study, interviews, and other data collection; and analyzing the data with input from team members and USAID/West Africa to draft the evaluation report.

The local **Evaluation Specialist** will provide additional technical support to the evaluation team as well as support administrative and logistical functions necessary to carry out the evaluation. S/he should be a national or local expert from the region, and have strong organizational skills. S/he should have strong English and French speaking skills and a master's level degree with 8 years of relevant technical knowledge and experience. S/he will be responsible for assisting in coordinating the desk study, interviews, and other data collection, and providing overall administrative and logistical support to the team.

The evaluation team should provide complimentary skills and together possesses the technical, evaluation and managerial skills to submit high quality deliverables that meet the objectives of the evaluation without requiring significant revisions and substantive/significant input from the Mission.

The USAID Africa Lead project Activity Manager in Accra will provide the linkage between LEAD's consultants and the Mission. Working with the Mission, s/he will provide strategic direction and guidance throughout the evaluation process, including the approving the work plan, any data collection tools, and evaluation report outline, approach, and content.

In addition to the external consultants, the evaluation team may be complemented by additional team members from USAID as follows:
1) Agriculture Specialist (USAID Washington and/or USAID/West Africa)
2) Monitoring and Evaluation Specialist and/or Program Development Specialist (USAID/West Africa)

These team members will provide complimentary technical assistance in their area of expertise and assist in the overall evaluation implementation, participating in consultations, and in helping draft the report. It is expected that the team members identified above will be able to participate for a period of 3-4 weeks each, and focusing on assisting in conducting consultations and overall programmatic strategic review.

VI. EVALUATION MANAGEMENT

The IFSP program supports activities in a number of ECOWAS member countries and the evaluation team is anticipated to visit and conduct consultations in each of the focus countries. Preference should be provided at a minimum to the four FTF focus countries in West Africa (Ghana, Senegal, Liberia and Mali) where relevant, in addition to other countries which had a high concentration of activities and/or a unique program component or result. The evaluation team may visit up to three provinces/locations within a particular country where field activities were conducted. Based on the reports available and the information collected through consultations, the Team of Consultants will select the project places to be visited.

The evaluation team will receive support/validation from USAID/West Africa in selecting priority organizations and places to visit during the evaluation, and in gaining country clearance where appropriate. The evaluation team is expected to schedule interviews or other modes of data collection with key stakeholders, though USAID and the implementing partner, CORAF, can assist in providing contact information. USAID/West Africa can facilitate hosting some consultations at the regional offices in Accra, but working space or other support cannot be provided to non-US government members of the evaluation team. The evaluation team is also responsible for making their own hotel, air travel, and local transportation arrangements in accordance with U.S. requirements for allowable carriers and per diems. If the team needs other language skills besides English and French, they may engage local language interpreters to support interviews where necessary.

The period for the evaluation is estimated at **40 working days** partitioned as follows:
Analyses of documentation-desk top review (3 days)
Evaluation Planning; meeting with the Mission, implementing partners to validate the work plan and the methodology of the study (5 days)
Field visit (18 days)
Data Analysis (6 days)
Report writing including incorporating feedback on the draft reports from USAID/TEAMS (8 days)

ANNEX D - CHRONOGRAM FOR FIELD VISITS

Countries to visit	Project or (activities)	Institution	Period from 3 Jul. to 19 Aug.								
			3-4	7-11	14-18	21-25	28-1	4-7	8-13	14-15	18-19
CORAF Secretariat	(Meeting)		X								
CORAF Secretariat	(Work plan, Questionnaire development)			X							
Senegal (full team)	Post-Harvest Sorghum-Striga	ITA ISRA			X						
Mali (full team)	Post-Harvest **Sorghum-Striga** Bt Cowpea	IER				X					
Burkina (team 1)	Post-Harvest Sorghum-Striga **Bt Cowpea** Yellow mottle virus	INERA					X				
Nigeria (team 2)	Post-Harvest **Yam minisett** Yellow mottle virus	NCRI (Bida, Niger state) **NRCRI** (Umuahia, Abia state**)** ARCN (Abuja)					X				
Ivory Coast (team 1)	**Yellow mottle virus** Cassava Tissue Culture	CNRA (Abidjan)						X			
Liberia (team 2)	Post-Harvest Yellow mottle virus Cassava Tissue Culture	CARI (Monrovia)						X			
Benin (team 1)	**Post-Harvest** Yam minisett Cassava Tissue Culture	Centre Songhai (Porto Novo) INRAB (Cotonou) INRAB (Cotonou)							X		
Ghana (team 2)	Yam minisett **Cassava Tissue Culture** Post-Harvest Yellow mottle virus	CRI (Kumasi) CRI (Kumasi) CSIR-Food research Institute CSIR/CRI							X		
Ghana (full team)	(Analysis)	Africa Lead								X	
Ghana (full team)	(Write-up)	Africa Lead									X

ANNEX E - SUMMARY OF FIELD VISITS AND KEY PERSONNEL WHO FACILITATED VISITS

Venue of Interviews	Dates	Organizations	Contact Person
Senegal	July 3-20	CORAF	Several senior managers
		ITA	Dr. Fallou Sarr
		ISRA	Dr. Moctar Wade
		Rice Processors' Women Association	Mr. Sowe, ITA
		Sorghum Producers' Association	
Mali	July 21-26	IER Mali	Dr. Diourte
		CRRA-IER	Dr. Diourte
		IER-CRRA	Dr. M Toure
		Sorghum/Millet Processors' Women Association	Mme S. Coulibaly
		Sorghum Producers' Association	Dr. Diourte
Burkina Faso	July 27-Aug 1	INERA/ DPA	Dr. Hamidou Traoré
(Sub-team 1)		INERA/ CREAF de Kamboinsé	Dr Clementine Diabire
			Dr. Joseph Bationo
			Dr. Ouseini Traoré
			M. Leandre Podar
		INERA/Farakoba	Dr. Ouedraogo Ibrahima
		IRSAT	Dr. Brehima Diawara
			Dr. Laurencia Songre
			M. Boniface Bougouma
		Ministry of Scientific Research	Mme Julienne Gue
		SODEPAL	Mme Simone Zoundi
		ILRI/West Africa	Dr Abdou Fall
Nigeria	July 27-Aug 1	NRCRI	Dr. John Ikeorgu
(Sub-team 2)		ARCN	Dr. E. Oti
		NCRI	Dr. Emmanuel Abo
			Dr. Nehemiah Danbaba
Cote D'Ivoire	August 4-8	CNRA Abidjan / Laboratoire central de biotechnologies	Dr. Nazaire Kouaasi
(Sub-Team 1)			Dr. Edmond Koffi
			Dr. Modeste Kouaasi Kan
		CNRA Gagnoa	

			Dr. Allphonse Bouet Dr. Anguete Kouamé Dr. Nbaka Tchetche Dr. Nazaire Kouaasi
		ANASEMCI (association of seed producers)	M. Apollinaire Koutou
Benin **(Sub-team 1)**	August 10-13	INRAB/CRA-Sud INRAB/CRA-Sud Centre Songhai	Dr. Marcellin Allagbe Dr. Romuald Dossou M. Leonce Sessou
Ghana **(Sub-Team 2)**	August 10-13	CRI	Dr. Marian Dorcas Quain Dr. Emmanuel Otoo

ANNEX F: TASK TIMELINE AND DELIVERABLES FOR CONSULTANTS DURING THE FINAL EVALUATION OF IFSP, 2014

Task Timeline and Deliverables - Final Evaluation of IFSP												
Dates	30 jun. - 2 Jul.	3-4 Jul.	7-11 Jul.	14-18 Jul.	21-25 Jul.	28 Jul. - 1 Aug.	4-7 Aug.	8-13 Aug.	14-15 Aug.	18-19 Aug.	25 Aug.	27-28 Aug.
In-briefing & discussions with USAID	X											
Document consultations in Africa Lead	X											
IFSP team building meeting	X											
Meeting with CORAF/WECARD		X										
Work Plan and Timeline delivered		X										
Submission of detailed report outline		X										
Questionnaire / Guidelines for conducting interviews			X									
Fields sites visits/interview: Senegal				X								
Fields sites visits/interview: Mali					X							
Fields sites visits/interview: Burkina Faso						X						
Fields sites visits/interview: Nigeria						X						
Fields sites visits/interview: Ivory Coast							X					
Fields sites visits/interview: Liberia							X					
Fields sites visits/interview: Benin								X				
Fields sites visits/interview: Ghana								X				
Debriefings (Ghana)									X			
First draft evaluation report - outline										X		
Second draft evaluation report											X	
Final Evaluation Report												X
Provision of all raw evaluation data sets												X

ANNEX G – LIST OF EQUIPMENT, MATERIAL AND FACILITIES PROVIDED UNDER SPS PROJECTS

Project	Country	Respondant name	Institutional achievements
Striga-Sorghum	Mali	Mamourou D.	buildings and infrastructures ICT Equipment 1 Personnel recruited
Striga-Sorghum	Senegal	Moctar	ICT
Striga-Sorghum	Burkina Faso	Hamidou Traoré	ICT
Bt cowpea	Burkina	Dabire	Mini Equipment of laboratory Equipment (Green house)
Post harvest	Mali	Sidibe Coulibaly	Mini equipment of laboratory
Post harvest	Burkina	Laurencia Ouattara	Set of 3 post harvet Equipment
Post harvest (Cassava)	Togo	Afo Tuoko	Set of 11 post harvest Equipment
Post harvest (cassava)	Benin	Paul Houssou	
Post harvest (cassava)	Nigeria	Emmanuel Oti	Small set of Equipment
Post harvest (Rice)	Nigeria	Nehemiah Danbaba	Equipment (a set of 12 materials for rice processing)
Post harvest	Senegal	Fallou	ICT equipment
Cassava tissue culture	Ivory coast	Koffi Edmond	Mini equipment of laboratory Equipment (Screen house)
Cassava tissue culture	Benin	Marcellin Allagbe	Mini equipment of laboratory Equipment (Screen house)
Cassava tissue culture	Liberia		buildings and infrastructures including screen-house and laboratory Chemical and lab consumables 2 new position filled
Cassava tissue culture	Ghana	Marian Quain	2 Screen-house Chemical and Laboratory consumables Mini equipment of laboratry
Cassava tissue culture	Sierra Leone	Festus Massaquoi	1 Screen-house Equipment Chemical and lab consumables
Rice RYMV	Nigeria	Abo Emmanuel	None (Plan to equip the lab)
Rice RYMV	Burkina Faso	Ouedraogo Ibrahima	Equipment (molecular biology)
Rice RYMV	Ivory coast	Alphonse BOUET	None None (Plan to equip the lab)
Rice RYMV	Sierra Leone	Denis Taylor	Screen-house 2 New positions created
Yam	Nigeria	John Ikeorgu	Equipment 3 ICT Equipment
Yam	Benin	Romuald Dossou	Equipment (pump) 1 Motorcycle
Yam	Ghana	Emmanuel Otoo	4 personnel recruited

ANNEX H – PUBLICATION LIST FROM PROJECTS

Publications by Projects

Striga-Sorghum

- Promotion of sorghum varieties resistant to Striga in mitigating food crises in the - Senegal, Mali, Ghana and Burkina Faso: A baseline study documents.
- Promotion of sorghum varieties resistant to Striga in mitigating food crises in the - Senegal, Mali, Ghana and Burkina Faso: Training manual for the production of sorghum seeds
- Promotion of sorghum varieties resistant to Striga in mitigating food crises in the - Senegal, Mali, Ghana and Burkina Faso : A training for integrated control of Striga.

- Quarterly, half year and annual reports; Reports from project launching;
- Reports from the Annual Review and Planning Workshops (2010/11 and 2011/12)
- Two-year project report; Baseline study report

- 2011, Coraf Action No. 56: 20, Promotion de varietés de sorgo resistants au Striga pour reduire les crises alimentaires dans la zone Sahelienne, 2011
- Mali

YAM MINISETT

- Bright Owusu Asante1*, Emmanuel Otoo1, Alexuiiander Nana Wiredu, Patricia Acheampong1,Jonas Osei-Adu1 and Benedicta Nsiah-Frimpong (2011). Willingness to adopt the vine multiplication technique in seed yam production in the forest savanna transition agro-ecological zone, Ghana. *Journal of Development and Agricultural Economics* Vol. 3(16), pp. 710-719, 26 December, 2011
- Osei K.1, Otoo E.1, Asiedu E.2, Asiedu R.3, Danso Y.1, Adomako J.1, Appiah-Danquah (2012) P.1 Reaction of Dioscorea alata clones to plant parasitic nematodes infection, International Journal of Research in BioSciences; Vol. 2 Issue 3, pp. (60-65), July 2013, Available online at http://www.ijrbs.in ISSN 2319-2844
- Student theses in Nigeria: Effect of sett size on the yield of seed yams
- Student theses in Nigeria: Efficiency of seed yam production in Nigeria using the minisett technique
- Student thesis in Togo: Economic evaluation of the technique for the production of the yam minisett
- Student thesis in Benin: Analyses of the yam seed system in Benin

Post Harvest Project

- **Danbaba, N., Ukwungwu, M. N., Josiah U., Ernest, A. A. and Sossou, L**. (2013). Enhancing Farmers's Access to Technology for improved Parboiled Rice Processing and Marketability in Nigeria. *International Journal of Applied Research and Technology* 2(1):28-37

- **K.A. Vowotor, E. A. Asiedu b, W. Quaye a, P.N.T. Johnson, G. Komlagaa, J. Gayin, L. Sessou and Fr. G. Nzamujo** (2011) . Constraints and opportunities for improving cassava processing technologies in West Africa. Presented at the West Africa Root Crops Conference, Accra, Ghana. September 12-16, 2011 (Page 28 of book of abstracts). *Ghana Journal of Agricultural Science*, (Accepted for publication)

List of Divulgation Articles

- Status, challenges and oppportunities in improving cassava processing system

in West Africa: Baseline information

- Promotion of sorghum varieties resistant to Striga in mitigating food crises in the - Senegal, Mali, Ghana and Burkina Faso(in French)
- Etude socio économique de base du système de transformation des produits a base
- Etude de base du système de transformation agroalimentaire en Afrique de l'Ouest
- Improving agro-processing systems in rice, sorghum/millet and cassava to enhance marketability in West Africa – A poster
- Staple Crops Program: Program Development and Implementation Strategy – A brochure
- Global Food Security Response Initiative: Strategy for improving agro-processing systems in rice, sorghum/millet and cassava to enhance marketability in West Africa – A brochure
- Post-Harvest Newsletter, April 2010: Improving agro-processing systems in rice, sorghum/millet and cassava to enhance marketability in West Africa 2011: Coraf Action No. 55: 14-16, Outiles et credits au secours des populations de Doko, 2011
- 2012 - 2013: Coraf Action editions

Rice – RYMV1 Project

- **Alphonse BOUET , Acho Nicaise AMANCHO, Nazaire KOUASSI et Kouamé ANGUETE** : Comportement de nouvelles lignées isogéniques de riz irrigué dotées du gène de résistance (rymv1) au RYMV en Afrique de l'ouest : situation en Côte d'Ivoire. *Int. J. Biol. Chem. Sci*. 7(3): 1221-1233, June 2013 ;
- **M. E. Abo, A. T. Maji, M. N. Ndjiondjop, P. A. Ibrahim, J. T. Onwughalu, A. Baba1,T. Akaa and Bashiru, M.:** Evaluation of Rice yellow mottle virus (RYMV) resistant BC3F5 lines and other improved rice varieties under natural field infestation condition at Edozhigi, Nigeria (*in press*). Nigerian Society of Plant Protection Journal, 30(1).

ANNEX I - CORAF/WECARD APPROACH TO STRENGTHENING CAPACITY OF NATIONAL AGRICULTURAL RESEARCH AND INNOVATION SYSTEMS

INTRODUCTION

CORAF/WECARD, between 2006 and 2007, developed a Strategic Plan 2007-2016 assorted with a 1st Operational Plan (OP) covering the period 2008 à 2013, and a change management program to facilitate its implementation. These Plans were aligned to global, continental, and regional policies, strategies and frameworks, notably the Millennium Development Goals (MDG), the Comprehensive Africa Agriculture Development Program (CAADP) and the Framework for African Agricultural Productivity (FAAP), designed to facilitate implementation of CAADP Pillar IV on agricultural research and adoption of technologies and innovations, and the Agricultural Policies of the Regional Economic Communities in West and Central Africa (ECOWAS, UEMOA, ECCAS and CEMAC). The Plan is implemented through a programmatic approach based on eight priority sectors considered as Programs within CORAF/WECARD, which respond to priority agricultural challenges in the sub-region. These eight priority sectors are : (i) Livestock, Fisheries and Aquaculture, (ii) Staple Crops, (iii) Non Staple Crops, (iv) Natural Resources Management, (v) Biotechnology and Biosafety, vi) Policy Markets and Trade, (vii) Knowledge Management, and (viii) Capacity Strengthening. The implementation of these Programs is based on the integrated agricultural research for development (IAR4D) paradigm, which encourages multi-stakeholder interventions to address common challenges based on the value chain approach and geared towards the sustainable improvement of agricultural productivity and access to markets. The Programs deliver in the following four result areas: Result 1 – Appropriate technologies and innovations developed; Result 2: Strategic options for decision making in policies, institutions and markets established; Result 3: Sub-regional agricultural research system strengthened and coordinated; Result 4: Demand for agricultural knowledge from target clients facilitated and met.

PHILOSOPHY

It is important to note that the Executive Secretariat (ES) of CORAF/WECARD does not have the responsibility of delivering results as such, contrary to what most people think. The ES, however, needs to be in close alliance with and coordinate and facilitate institutions of National Agricultural Research and Innovation Systems (NARIS) and their partners operating within the CORAF/WECARD geographical space and their partners, which have the responsibility of delivering results based on the integrated agricultural research for development (IAR4D) paradigm. To go about doing this, CORAF/WECARD has used two mechanisms – the competitive grant and the commissioned project schemes - to establish consortia of different categories of stakeholders for delivering results. These two schemes are similar in the sense that thy allow for at least three different categories of stakeholders from at least three different countries in the sub region to develop and implement project concepts, based also on priority agricultural research for development themes identified through scoping studies and validated by stakeholders. Implementation of the projects by the various consortia are facilitated through the award of grants and coordinated by the ES of CORAF/WECARD. They differ in the sense that the competitive scheme allows for the different consortia to respond to calls launched by the ES of CORAF/WECARD, followed by the selection of the consortia with the best comparative advantages based on set criteria, to carry out the project. The commissioned project scheme allows for consortia to express their interest in addressing a priority research for development constraint through projects, which are evaluated and then supported to carry out the projects.

Furthermore, through five-year's experience of implementing the 1st OP, CORAF/WECARD has succeeded in developing the Innovation Platforms (IPs) as a tool to facilitate the implementation of

IAR4D and delivery of results. The specific problems and opportunities of actors across the value chain have served as entry points for the various innovation platforms established within the context of the different projects. IPs represent a community of practice involving smallholder farmers and their associations, agri-preneurs (processors, traders, transporters, artisanal workers, input suppliers), research scientists, extension workers including NGOs and in some cases the media, local government and traditional rulers, banks, micro-finance and credit institutions, religious and traditional leaders. In effect, IPs have contributed in increasing efforts to develop and activate linkages with the necessary networks for successfully delivering appropriate technologies and innovations, strategic decision making options and strengthening capacity and coordination of sub-regional research for development. They have also enhanced the quality of interactions and relationships among actors as well as information and knowledge sharing. Information communication media including radio, local and national print media, demonstration plots, farmer field schools, field days, and learning visits, etc., were used to share information and knowledge on agricultural technologies and practices. These are destined to ensure pronounced visibility of technologies and innovations, products of commercial value as business opportunities, decision-making tools and strategic options. Training and mentoring of actors were also ensured in some cases by focal points from national research institutions, charged with the responsibility of facilitating the understanding of the objectives, challenges and modalities of IPs. These focal points also used tools developed by CORAF/WECARD for preparing annual work plans and budgets and monitoring and evaluation.

PERSPECTIVES

During the 1st OP, CORAF/WECARD has succeeded in coordinating and supporting the establishment of about 175 IPs at different levels of functionality, which it considers as a potential **IMPACT INFRASTRUCTURE** in the sub-region. These Innovation platforms are distributed over different agro ecological zones in West and Central Africa and address various challenges associated with the eight priority sectors mentioned above. They are being operationalized by 136 consortia consisting of different categories of stakeholders of the National Agricultural Research and Innovation Systems (farmers and their organizations, NGOs, private sector, research institutes, institutions of higher education, women groups, policy makers, etc.). A recently developed 2nd OP, which will run from 2014 to 2018, will ensure that the very significant results obtained so far could be processed in such a way that it will contribute in a more visible and accountable manner towards achieving the main objective of the CAADP of a 6% annual productivity growth. CORAF/WECARD's proactive views of pursuing its functions of strengthening the capacity of NARIS, within the context of its 2nd OP (2014 -2018), will revolve around strengthen functions and forms established during the implementation the 1st OP. The 2nd OP will focus on scaling up and out of results delivered to strengthen this already developed **IMPACT INFRASTRUCTURE.** Since 2008, several technical and financial partners including USAID/WA have provided significant institutional and programmatic support to implement the 1st Operational Plan. CORAF/WECARD will continue advocating for investments in the implementation of its 2nd OP.

(Compiled by the Executive Director, July 2014)

ANNEX J - A COMPENDIUM OF SUCCESS STORIES ASSOCIATED WITH THE USAID-FUNDED PROJECTS IMPLEMENTED BY CORAF/WCARD AND NARS

La fortification de la farine de mil/sorgho en fer et acide folique : une stratégie de l'USIAD pour contribuer à la politique du Niger pour atteindre le premier des OMD à savoir «Réduire l'extrême pauvreté et la faim »

In order to solve problems from deficiencies of macro nutriments which is one of the major cause of infantile mortality in Africa, the Government of Niger has adopted through the MDG, strategies to reduce extreme hunger and poverty. The CORAF /USAID commissioned project 'Improve the quality of post harvest and storage of sorghum/millet based products in order to enhance the commercial value in WA' has been designed to contribute to this national effort aiming at eradicating the hunger and the malnutrition. One of the results generated through this project is the dissemination of technology for biofortifying the sorghum/millet flour with folic acid in order.

In the framework of this project, a mill has been established in Niamey, Niger and equipped to produce fortified flour for a woman group named Lankhakamey. At all occasion, the President of the Woman group, used to inform and sensitize the public, the Authorities and the NGO's to support this initiative of flour biofortification an alternative to eradicate the hunger and malnutrition.

As a result of this aggressive sensitization, the group has received an order to produce 2600 kg of fortified flour of millet for the children of the village SOS. Furthermore, the group has signed contract to supply all the SOS villages with fortified millet flour.

The project has help to empower women and to reduce malnutrition of children of the SOS villages in Niger.

Fallou SARR,

Coordonnateur régional du projet

Staple Crops Program

SUCCESS STORY

Empowering a rural community to improve rice competitiveness and incomes

The project *Improving post-harvest quality and packaging of rice, sorghum/millet and cassava products to enhance marketability in West Africa is an initiative of the USAID, implemented by CORAF/WECARD and coordinated by the Songhai Centre, an NGO based in the Republic of Benin. Target countries are Nigeria, Ghana, Liberia, Mali and Senegal.*

Rice ranks high in its potential contribution to the economies of West and Central Africa; however, its potential is yet to be fully realized due to the low competitiveness of locally produced rice, compared to the imported one. The project therefore seeks to empower rice processors, particularly rural women, to improve the competitiveness and market access of locally produced rice in achieving rural food security and high incomes.

From scraps to successful technology (story of a local fabricator of rice par-boiler using scrap metals)

The training in improved rice post-harvest technology was conducted in the Doko community in the Niger State of Nigeria in April, 2011. Three days to the day, all preparations had been completed except the adapted par-boiler (the original par-boiler was from Benin and was to be adapted in project target countries). The National Project Coordinator from the National Cereals Research Institute (NCRI) in Nigeria, Dr. Danbaba Nahemiah contacted an engineer with a sample of the equipment designed in the regional training manual developed by the project team (from Ghana, Nigeria, Senegal, Mali, Liberia and the Africa Rice Centre) at the Songhai Centre. The cost of fabricating was estimated at 50,000 Naira (US$ 333.33), which was too high. When a local artisan was contacted, he said *our job is to use scrap metals to fabricate, let's try and see.*

Within one day, Mallam Saidu a fabricator had fabricated a clean prototype, ready to be tested. It was given to a local rice processor to test and two days after, she brought her milled rice to testify. In her words *this equipment is wonderful, so simple, economical in water and fuel uses, hope this is for keep*. Mallam Saidu Abubakar and his son Jamilu Ibrahim who have been working with scrap metals for several years were happy on hearing this and they said '*scraps can be converted to successful technology and governments should give us such an opportunity to demonstrate our skills*'. Today Mallam Saidu and Jamilu are the principal trainers for local artisans and have taken orders from the women to construct 23 par-boilers, 40 liters aluminum pots and pot stands for conditioning paddy grain rice. *Your coming to us has boosted our business*

and we are going to be better off as we will make a profit of eight to ten thousand naira (53 – 67 US Dollars) for every 10 par-boiler fabricated and they (women processors) will also be happy as we will deliver on time, says Mallam Jamilu in his local language, Hausa; thanks to the project for this opportunity.

Let us brand it DOKO-Research premium rice (story of quality appreciation by the district head of Doko)

Trained women selected Mallam Mohammed Yahaya's mill for milling the rice used at the training. At the last day of the meeting, Mrs. Sarah K. Tsado in company of women from villages around Doko came to confirm the quality of the rice obtained from the technology introduced. Soon as the milling began, all the women started sampling the milled rice and comparing it with their products. One of the women quickly took a small portion to show to the Guests of Honor at the closing ceremony (the District Head of Doko and Religious Leaders). '*Let us name this rice after packaging, Doko-Research premium rice, as its quality is the same as that of imported rice in the market*' said the District Head.

This project has brought laughter to many homes as most of the women are sure of more income from rice business, which they said will greatly enable them pay their ward school fees, medical bills and even put more into their '*asoso*' a local metal container into which money is dropped by women on daily basis and counted only when it is filled, as a saving tool.

Can any body own an account? (A remarkable dilemma of a craft man)

The Micro-Finance Bank (MFB) was invited to present a paper on the access to credit and rice business. Mathew was on time and was able to keep to the zeal expressed by the women. The project was able to introduce this group of rice farmers, processors and artisans to the bank and 70% of them were able to have saving account.

This opportunity must be shared (*Story of a formidable woman leader*)

Mrs Hannah Gana, a widow and mother of 6 is the leader of women processor group in Doko village, she was first contacted by the project during the planning visit to the village, and promised to mobilize her members to take advantage of the training. Earlier on, 30 participants were expected for the training; alas! over hundred turn on and insisted on taking part in the training. When the project team asked her why this high turnout, she said 'this opportunity must be shared, as all of us are poor and any slight change in our rice business will improve our livelihoods. She was specially honored by all the women groups when a decision was taken to give each community one of the par-boilers. All the group leaders agreed to give her the equipment for her leadership. The high number of trained women group reported was significantly attributed to her effort and formidable leadership style. Thanks to Mama Hannah as she is popularly known.

LESSONS LEARNT

- Community and faith leaders are critical facilitator in the implementation of the project as social and cultural norms determine women participation.
- For effective communication, the use of town criers, church and mosque announcements and the use of posters are essential.
- The use of cheap, simple and adoptable technology is much welcome than the big technologies which can only be owned by rich processors.
- Participatory approach to identification and solving problems facilitate the achievement of project results.

ATTENDANCE

About 118 participants were trained from 9 women processor groups from 9 villages in Doko district of Niger state, which included 17 widows. In addition, 5 young men were trained in the fabrication of rice par-boiling equipment, which has become a business for them.

A= Women are happy with grain quality obtained and are comparing it with a sample from another women at the mill, who unfortunately did not participate in the training.

B= The district head of Doko (Alh. Mohammed Gana) and the representative of Anglican Bishop of Doko (Vulnerable Jeremiah N. Kolo) admiring the quality of rice obtained from the training.

BENIN SUCCES STORY

Cette histoire concerne l'entreprise de monsieur ODJOUGBELE Emile situé dans le quartier Achoubi, arrondissement deKétou dans le département de plateau au sud Bénin. Cette entreprise transforme le manioc en gari qu'elle vent aux commerçants qui viennent d'un peu partout au Bénin et surtout des commerçants venus du Nigéria. L'entreprise de monsieur ODJOUGBELE Emile emploie aujourd'hui une quarantaine d'ouvriers en majorité des femmes ce qui lui permet de transformer plusieurs tonnes de manioc par jour.

L'une des grandes contraintes liées à la production du gari au niveau de l'entreprise est la pénibilité de pressage. Face à cette contrainte le projet « Amélioration post-récolte des produits à base de manioc, mil/sorgho et riz. »financé par l'USAID/CORAF a introduire une presse motorisée afin de lever cette contrainte.

En effet, avant appui de USAID, l'entreprise utilisait beaucoup de grande presses à vise manuel (photo ci-dessus) pour presser le manioc rappé. Ce qui prend beaucoup de temps et de mains d'œuvre.

Après l'intervention, du projet par l'introduction de la presse motorisée, le chef d'entreprise a presses manuelles. Aujourd'hui avec la seule presse motorisée (photo à droite), l'entreprise peut presser la même quantité en une seule journée.

Dans ces conditions, monsieur ODJOUGBELE Emile envisage acquérir en de la seule presse qui lui a été donné 1 ou 2 supplémentaires afin d'augmenter les performances de son entreprise.

ANNEX K – INNOVATION PLATFORMS ASSOCIATED WITH CORAF/WECARD ENCOUNTERED DURING EVALUATION OF IFSP

Case study of Innovation Platform in Burkina Faso

Meeting with Mrs. Julienne GUE

Coordinator of the Platform of the project: « Strengthening Seed Systems Research and Development (sorghum, groundnuts, cowpeas, maize) »
Adviser of the Minister of Scientific Research and Innovation
Mayor of the Municipality of Pouni

GENERAL OVERVIEW OF THE REGIONAL PROJECT

The project "Strengthening the development of seed systems (sorghum, groundnut, cowpea, maize)" was implemented in Mali, Burkina Faso, Cameroon and Ghana from 2011 to 2013.

The aim of the project is to contribute to a better understanding of the benefits associated with the use of improved varieties and improve the availability and management of seed demand and supply.

- The project coordinators were selected on the basis of their skills
- Applications from women were encouraged
- A total number of 79 platforms have been implemented in the countries of the project,
- During 2013, the best 9 platforms have been selected and funded for 1 year supplementary of further strengthening.

IMPLEMENTATION AND ACHIEVEMENTS OF THE PROJECT IN BURKINA FASO

Process of conception and implementation of the platform

Step 1: A preliminary study to identify and describe the mains actors and value chains was performed.

Step 2: The writing and fixing of the project was achieved by integrating the regional actors:

- The Research (INERA and other NARS, ICRISAT, CSIRO)
- The National Union of seed producers
- The agricultural extension service (specifically the Seed Service)
- The Agro dealers.

Step 3: The baseline study performed, has helped to integrate new actors at the grassroots level (the municipality and its villages):

- The services of local management.
- The Producers associations and credit associations
- The regional chambers of agriculture (including civil society)
- The local authorities (policymakers, prefect, the village chief, the mayor).

Functioning of the Pouni Platform

Composition of the platform

- Research (INERA and other NARS, ICRISAT, CSIRO)
- The National Association of Seed Producers
- The agricultural extension service (specifically the National Seed Service)
- The Agrodealers: NAFASO, AGROPRODUCTION, AGRODIA
- The local advisory services : agriculture, environment, livestock breeding.

- The credit and cash cooperatives of producers
- The regional chambers of agriculture (a kind of civil society)
- Local authorities (policy makers, prefect, the chief of the village, the mayor)
- The National and local media: radio, television, print
- All the leaders of the projects involved in the given municipality

Experimental device used for farmer field school

It provides a framework for experimentation and capacity building of stakeholders on innovative technologies related to utilization of improved varieties of seed.
It consists of 4 crops; 4 varieties per crop; 4 replications per variety; 2 levels of treatment / experimental unit, giving a total of 128 small plots. These plot are to be compared against the traditional farmer plots (reference plot).

The device involves 32 producers (50% women) among which the seed producers and the producers of grains for consumption.

In addition to the collective experimental field (also called mother trial), there were individual experiments conducted by each producer through two different varieties of the same crop at its option.

Supervision and leadership of the experimental field was performed by the agricultural extension agent with the support of one member of the producers organisation, the forest officer agents and the agent in charge of livestock.

Meetings and exchanges

- Two (2) regular meetings are organized by year (1 planning meeting and 1 meeting of sharing and capitalization of results)
- Extraordinary meetings are organized to welcome external actors.
- Weekly meetings of members are also organized on experimental device to work and share knowledge and experiences.
- The researchers are also in the follow-up of the experimental device and provide technical advice or capitalize farmer's experiences at planned frequency.
- The mayor and the union of producers also organize visits of fields for neighbouring villages who visit and interact with the actors of the platform.

Outcomes and direct or indirect impacts.

In 2012, the seeds produced by the members of the platform have been certified in terms of conformity and quality.

- These certified seeds were all purchased by agrodealers as the years before, there was a slump in sales of these seeds.

- Women members of the platform have created a small group to pool certain factors of production, which enabled them to produce two plots of 4ha each (or 8 ha). They received encouragement from the Minister of Scientific Research and Innovation and mission CSIRO visit. This combination enabled them to reach the minimum legal size for seed production that is 3ha for legume crop (considering the law it is 5 ha for cereals). The association of women in the platform helped meet this legal requirement.

- This crop year, members of the IP provide each of cowpea seeds: Pouni 5 ha, ha Karangasso-Vigué 3 Boura and 3 ha.

- Project coordinator became mayor of Pouni municipality in January 2012

- The president of the Pouni Municipal Union of producers of cowpea was promoted to president of the Provincial Union of Producers of cowpea seeds.

Lessons

The platform success depends on the relevance of the theme of development that founded it (in Burkina Faso, the issue was relevant because 80% of farmers use local seed varieties, and are potential customers of an action research on improved seeds)

The effectiveness of the platform depends largely on the key actors of the project (organizations of seed producers, producers).

The project coordinator is also mayor of Pouni since 2012 when the project was completed in late 2010 and launched early in 2011 his responsibility as head of the council can be considered an indirect impact of the project because the project has to unite the actors of the value chain of this county to overcome the problems of production and marketing of the product.

NB. Following the Action-Research conducted a few years earlier in this county by Dr Issa DRABO (a researcher specialized in cowpea' breeding at the research station INERA) some producers have asked to be trained in production of cowpea seeds. Since, the formation of producers, the seed production of cowpea has gradually increased and that brings them to build a group of seed producers. The area of seed production has reached 32 ha at the end of the third year. From 2009, this dynamic innovation has been constrained by the difficulties to sale the production of cowpea seed as the quantities produced were becoming important. In the design phase of the project, the municipality of Pouni was chose by Agrodealers due to the ability of producers to perform in seed production.

The platform must integrate all conditions to guarantee its sustainability from the designing stage to the implementation stage. The actual integration of partners (CSIRO, ICRISAT, INERA) facilitated the capacities building process and supports the operation of platforms. Partners such as CSIRO (Australian research organization) have been integrated in the process and they have contributed on modelling aspects of the platform implementation.

The success of platforms is related to the dynamic involvement of all stakeholders (producers, agro dealers, agricultural advisors, credit unions, regional chamber of agriculture, prefects, mayors, all the local authorities who can facilitate the process).

Features of the project compared to DONATA Project

DONATA project (the first innovation platform of CORAF in Burkina Faso) relies on value chains, giving priority to the product (the maize). It is based at the provincial scale (level grouping of several municipalities).
In contrary, the project "Strengthening Seed Systems Research and Development" intervenes directly at the municipal level (NB the municipality is a territorial unit with a budget and is therefore the place of planning local development).
Platforms created in the project have been placed under the supervision of the local municipality.

Prospects to Reinforce Platforms

- Strenghtening of already existing platforms to ensure their sustainability without changing their structure and representation of members.
- Dissemination of platforms in different villages of the municipality of the project and also in the surrounding communities
- Insuring the scaling-up of the platform by fixing and duplicating them at higher level (provincial, national level). in this process, the same types of actors who were represented at the communal platform.
- Currently, the State of Burkina asked to the associations to organize by product. This is a good base for strengthening the value chain.

Plantain Innovation Platform in Cameroon (Power Point to be converted into Text)

Improving plantain productivity and competiveness using Innovation Platform (IP) as a tool for integrated agricultural research for development: Case of ORIPAFIB in Cameroon

FONBAH C.[1], KWA M.[1], ZIMA G.[1], ASIEDU E.[2]
1. CARBAP Njombé, Cameroon; 2. CORAF/WECARD Senegal

Introduction

In Cameroon, plantain is among the most important food crop and is a favourite staple (Desdoigts et al., 2005 ;Temple et al., 1996). About 90 % is produced by small scale farmers with production rate estimated at 2,175,434 tons per year (FAO, 2010), making Cameroon the 8th world producer, the 4th African producer and the 1 st plantain producer in the CEMAC zone. These small scale farmers and actors are faced with numerous difficulties in improving the productivity and competitiveness of plantain. These difficulties among others are due to the lack of dialogue between the main stakeholders in the value chain. It was therefore necessary to bring these stakeholders together in an innovation platform as a tool for agricultural research for development. Thus the creation of « Organisation Inter-Professionnelle des Acteurs de la Filière Bananier Plantain » (**ORIPAFIB**)

Objectives

General: Productivity, competitiveness and markets for plantain sustainably improved in Cameroon.

Specific: Innovative technologies in the plantain sector in Cameroon promoted using Innovation Platform as a tool for Integrated Agricultural Research for Development.

Methodology

The process used to put in place the IP include:
- Identify two contrasting agro ecological zones representative of plantain production in Cameroon,
- Mobilise, identify and characterise the stakeholders,
- Define the roles and responsibilities of stakeholders and facilitators, chose action sites and put in place an action plan,
-Carry out a base line survey to identify and classify the principal constraints in the plantain sector,
-Carry out capacity building for stakeholders in various domains,
-Carry out of various multi- disciplinary participatory evaluation trials of new technologies and innovations to meet the aspiration of the stakeholders,
-Carry out regular monitoring and evaluation of the activities of the IP,
-Share information and experiences within and outside the IP.

Major outputs / outcomes

The ORIPAFIB innovation platform established under the CORAF plantain project has achieved the following:
9) 148 Common Initiative Groups (CIG) /Farmers' organisations beneficiaries with Knowledge increased in improved technology (PIF, IPM, ISFM),
10) Appropriation of the IP and Plantain development by policy makers and traditional rulers enhanced for sustainability through the involvement of 2 parliamentarians, 3 mayors and 4 traditional rulers in the IP.

The IP in a meeting session with Dr ASIEDU of CORAF as guest of honour

Capacity building on PIF technique

Plant producers at work producing clean planting materials using the PIF technique

A 12 ha sole cropping plantain farm standing around Bafang

ANNEX L - LIST OF PERSONS CONTACTED DURING VISITS TO PROJECT COUNTRIES

Surname	First Name	Organization	Telephone	Email Address	Country
Oliveira	Jorge	USAID/WA			Ghana
Brown	Elizabeth	USAID/WA			Ghana
Kore	Shirley	USAID/WA			Ghana
Osae	Collins	USAID/WA			GHana
Denizard	Carla	AFRICA LEAD		Carla_Denizard@dai.com	Ghana
Boly	Aliou	AFRICA LEAD		Aliou_boly@dai.com	USA
Amoa	Nana	AFRICA LEAD		Nana_amoah@dai.com	Ghana
Moctar	Wade	CNRA BAMBEY	+221773754456	wmoctar@hotmail.fr	Sénégal
Ndiogou	Diouf	URAPD-Extension	+221776055462	Diouf.ndiougou@yahoo.fr	Sénégal
Ibrahima	Sow	URAPD-Extension	+221775111088		Sénégal
El Hadji Sidy	Sall	URAPD-Extension			Sénégal
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Karim	Dagno	IER			Mali
Douba	Kamate	Appui au program sorgho IER	+22376141262	kamatedouba@hotmail.fr	Mali
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Nessenindoa	Julienne GUE	Technical Adviser	0022670285664/78159100	guejulienne@yahoo.fr/guejulienne@gmail.com	Burkina Faso
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Dr Kouablan Koffi	Edmond	Responsable Unité de culture in Vitro	0022502021113/08936008	kofiedmond@yahoo.fr	Côte-D'ivoire
Dr. Traore	Hamidou	Maître de Recherche / Directeur Adjoint Chargé des Programs	0022670258060	Hamitraore8@yahoo.com	Burkina Faso
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Dr Quain	Marian D.	Crop Research Institute			Ghana
Prof Magaji		Director Capacity Strengthening		Danyaromagaji1954@gmail.com	Nigeria
Koutou	Apollinaire	Semencier	00225006833	koutouass@yahoo.fr	Côte d'Ivoire
Prof. Oni	O.O	Director Coordination of Technical Research		olusolaoni@yahoo.com	Nigeria
Dr Abo	Emmanuel	Director of Research NCRI		Meabo2003@yahoo.com	Nigeria
Dr Danbaba	Nehemiah	Program Leader, NCRI			Nigeria
Dr Ikeorgu	John	Project Coordinator			Nigeria
Dr Oti	Emmanuel O	Project Coordinator			
Dr Allagbe	Marcellin	Chef Service Administratif et Technique	0022995406238	allamarcel@hotmail.com	Bénin
Dr Dossou	Romuald	INRAB/CRA-Sud			Bénin
Sessou	Léonce	Centre Songhaï			Bénin
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Dr Asiedu	Ernest	Program Manager CORAF/WECARD	00221338699618	e.asiedu@coraf.org	Sénégal
Roy-Maccauley	Harold	Executive Director CORAF/WECARD	00221338699618	h.roy-macauley@coraf.org	Sénégal

Dr Njoya	Aboubacar	Director Of Programs CORAF/WECARD	00221338699618	a.njoya@coraf.org	Sénégal
Dr Maman	Vincent	M & E, CORAF/WECARD		v.maman@coraf.org	

ANNEX M - LIST OF REFEENCE DOCUMENTS

Title	Author	Publisher	Date of Publication
Promotion of *Striga* control technologies in sorghum to mitigate food crises in the Sahelian zone (IER; CIMMYT if present; farmers; farmers groups; agrodealers)- A Project Proposal	IER-Mali	Institutit de l'Environnement et de la recherche Agricole. (INERA)	July , 2009
Promotion of improved yam minisett technology to improve yam seed supply and crop productivity	NCRI- Nigeria	National Cereals Research Institute	June, 2009
Evaluation and deployment of rice varieties endowed with the rymv1 gene resistant to the yellow mottle virus in West Africa	CNRA-Ivory Coast	Centre National de Recherche Agronomique (CNRA) Km 17, Route de Dabou, 01 BP 1740 Abidjan 01	June, 2009
Improving post-harvest quality and packaging of rice, sorghum/millet and cassava products to enhance marketability in West Africa	INR-Benin	Institut National de Recherche Agricole du Benin	June, 2009
Using in vitro tissue culture methods to preserve, multiply and distribute ACMV free cassava cuttings to farmers in West and Central Africa (CRI)	CRI-Ghana	Council for Scientific and Industrial Research Crops Research Institute (CRI); Ghana	June 2009
Improving cowpea productivity through the adoption of Bt cowpea varieties in Burkina Faso, Mali and Togo (INERA; CILSS; NGO and farmers): At least 1 case study and success stories	INRA- Burkina Faso	Institut de l'Environnement et de la Recherche Agricole	July,2009
Comprehensive Africa Agricultural Development Program	CORAF/WECARD	CORAF/WECARD	April 2010
Producers and End users at the Center of Agricultural Research and Development	CORAF/WECARD	CORAF/WECARD	
Action plan for the development of biotechnology and bio-safety in the ECOWAS sub-region	CORAF/WECARD, CEDEAO-	CORAF/WECARD, CEDEAO-ECOWAS	2007-2012

	ECOWAS		
Développement d'un transfert de technologies plus effectif entre les acteurs de la sous-région	CORAF/WECARD,CEDEAO/ECOWAS, BANQUE MONDIALE	CORAF/WECARD,CEDEAO/ECOWAS, BANQUE MONDIALE	
Dissémination des Nouvelles Technologies Agricoles en Afrique. (DONATA) Plateforme d'Innovation pour l'adoption des technologies.	CORAF/WECARD	CORAF/WECARD	
Staple Crops Program Global Food Security Response Initiative. STATUS, CHALLENGES and opportunities in Improving Cassava Processing System in West Africa CORAF/WECARD IN TEN POINTS Producers and End users at the Centers of Agricultural Research	USAID, CORAF/WECARD	USAID, CORAF/WECARD	
Operational plan CORAF	CORAF/WECARD	CORAF/WECARD	2014-2018
Strategic plan	CORAF/WECARD	CORAF/WECARD	2007- 2016
Cooperative Agreement No 624 – A – 00 – 09 – 00037-00	CORAF/WECARD/USAID	CORAF/WECARD	2009-2012
CORAF/WECARD Approach to Strengthening Capacity of National Agricultural Research And Innovation Systems			
CORAF/WECARD Yam Minisett Commissioned Project	CORAF/WECARD	CORAF/WECARD	
ANNUAL PROGRESS REPORT	CORAF/WECARD	CORAF/WECARD	2009-2011
Program cultures vivrières, Initiative Global de Réponse à la Sécurité Alimentaire : Etat des lieux, défis et opportunités de la lutte contre le Striga dans la culture du Sorgho. Promotion des variétés du sorgho tolérantes au	IER	IER	Mai 2011

Striga pour l'atténuation des crises alimentaires au Sénégal, Mali, Ghana et au Burkina Faso			
Projet d'amélioration de la qualité de la post récolte et du conditionnement des produits à base de riz, de manioc et du sorgho/mil afin d'accroître leur valeur marchande en Afrique de l'Ouest. Etude socioéconomique de base du système de transformation des produits à base de riz,	- CORAF/WECARD,	CORAF/WECARD	- Mai 2011
The USAID/WA-CORAF/WECARD strategy for the implementation of the Feed the Future Initiative in West Africa,	USAID/WA-CORAF/WECARD	USAID/WA-CORAF/WECARD	September 2013
RAPPORT ANNUEL CAMPAGNE AGRICOLE 2011 : «Promotion de Variétés de Sorgho Résistantes au *Striga*» pour réduire les crises alimentaires dans la zone sahélienne (Burkina Faso, Mali et Sénégal) Par	ISRA-CNRA	Moctar Wade	Février 2012,
Rapport Bilan des Projets Régionaux sur « la lutte contre les virus de la panachure jaune du riz et de la mosaïque Africaine du Manioc » En Afrique de l'Ouest. Abidjan Hôtel Belle Côte.	CNRA, CORAF, USAID	CNRA, CORAF, USAID	du 25 au 26 juin 2012
Promotion de la production des semenceaux d'igname au Ghana, Nigeria, Togo et Bénin par l'illustration de la Technique de mini-fragments d'igname.	INRAB, CORAF/WEBCARD, USAID	INRAB, CORAF/WEBCARD, USAID	août 2009 à février 2012
Rapport annuel : « Promotion des variétés de sorgho résistante au Striga pour réduire les crises alimentaires dans la zone Sahélienne (Sénégal, Mali et Burkina Faso.	IER, CORAF/WECARD/USAID	IER, CORAF/WECARD/USAID	Février 2012
Rapport d'exécution du projet CORAF/Striga : Promotion des variétés de Sorgho Résistantes au Striga pour réduire les crises alimentaires dans la zone sahélienne pour la période	Burkina Faso, INERA	Burkina Faso, INERA	2009-2011

ANNEX N - PARTNERSHIPS ENGENDERED DURING THE IMPLEMENTATION OF SPS PROJECTS

Yam Minisett Project

Ghana:
CSIR – Crops Research Institute, National Root Crops Research Institute (regional coordination) IITA providing backstopping, Root and Tuber Improvement and Marketing Project, Jackson Park Yam Marketers, West Africa Agricultural Productivity Program (WAAPP), IITA-Yam project funded by the Bill and Melinda Gates, The Agricultural Extension Service, Farmer Groups, the Private Sector Entrepreneurs, etc.

Nigeria:
Agricultural Development Projects from 13 states: ABIA State; Anambra State; Benue State ADP; Cross River State; Ebonyi State; Edo State; Ekiti State; Enugu State; Kaduna State; Nasarawa State; Niger State; Oyo State; Kogi State. A land area of 31 ha was covered under demonstration in these states. Food for All International; All Farmers Association of Nigeria (AFAN); Root and Tuber Expansion Program (RTEP).

Togo:
Partnership included the Togolese Institute for Agronomic Research, the extension service, farmer groups and associations, village communities, the private sector, NGOs.

Benin:
The Institut National des Recherches Agricoles du Bénin (INRAB) ; The University of Parakou, Faculté of Agronomy; Regional Centresl for the Promotion of Agriculture; Community based organization; NGOs ; 31 producer groups.

Post Harvest Processing Project
Benin based:
Contracts were developed between the Songhai Centre/ITA and the research institutions (Ghana, Togo, Benin, Nigeria, Senegal, Mali, Burkina Faso and Niger) and between

Senegal based.
Institut de Technologie Alementaire, ITA and the research institution/association in Mali, Niger, Burkina Faso.

The research institutions developed contracts with the private sector and the women groups to strengthen their capacity and support them with new technology and equipment. Partnership with financial institutions facilitated access to finance and equipment by the women groups and private sector.

Regional/International
Regional networking among food research institutions, the CGIAR, women processing groups, the Songhai centre has been developed to intervene in regional projects. Knowledge of expertise in the sub-region is helping to tap on opportunities and resource persons.

Post Harvest Processing Project
Benin based:

Contracts were developed between the Songhai Centre/ITA and the research institutions (Ghana, Togo, Benin, Nigeria, Senegal, Mali, Burkina Faso and Niger) and between

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The research institutions developed contracts with the private sector and the women groups to strengthen their capacity and support them with new technology and equipment. Partnership with financial institutions facilitated access to finance and equipment by the women groups and private sector.

Regional/International
Regional networking among food research institutions, the CGIAR, women processing groups, the Songhai centre has been developed to intervene in regional projects. Knowledge of expertise in the sub-region is helping to tap on opportunities and resource persons.

Striga-Sorghum Project
ICRISAT and Country NARS
Partnerships were developed with other scientists from Mali, Burkina Faso, ICRISAT, etc.

Implementation sites partnerships
At project implementation sites, partnership were developed with extension and NGOs (ANCAR-BAS/Kaolack, Pencum Bambuk de Koungheul et URAPD de Bambey), who also invested resources in the facilitation and monitoring the demonstrations and field testing. Additionally, partnerships were developed with farmers.

Partnerships were developed with other scientists from Mali, Burkina Faso, ICRISAT, etc. Other partnerships were developed with beneficiary farmers and extension agents.

Contracts signed
1 contract signed (IER-INERA); 6 sub-contracts signed with producer organizations
Partnerships were developed with other scientists from Mali, Burkina Faso, ICRISAT, etc. Other partnerships were developed with beneficiary farmers and extension agents.

Bt Cowpea Project
1 partnerships developed with INERA (Burkina Faso), and IER (Mali) for research on Bt-Cowpea
1 international partnership developed with AATF for the use of Bt-Cowpea lines
1 partnerships developed with ITRA(Togo) for research on Bt-Cowpea
1 partnerships developed with IER (Mali) for research on Bt-Cowpea

Cassava Tissue Culture Project
Cooperative agreement between CORAF/WECARD and CRI/CSIR for the regional coordination of the project
Cooperative agreements between CRI/CSIR and CNRA for project implementation in Côte d'Ivoire
Cooperative agreements between CRI/CSIR and INRAB for project implementation in Benin
Cooperative agreements between CRI/CSIR and CARI for project implementation in Liberia
Cooperative agreements between CRI/CSIR and ITRA for project implementation in Togo
Cooperative agreements between CRI/CSIR and SLARI for project implementation in Sierra Leone
Convention with IITA for backstopping project technical activities
In country agreements with national partners and farmers organizations.

Cooperative agreements between CRI/CSIR and CNRA for project implementation in Côte d'Ivoire
In -country agreements with national partners and farmers organizations.
Cooperative agreements between CRI/CSIR and INRAB for project implementation in Benin
In- country agreements with national partners and farmers organizations.
Cooperative agreements between CRI/CSIR and SLARI for project implementation in Sierra Leone
In- country agreements with national partners and farmers organizations.
Cooperative agreements between CRI/CSIR and CARI for project implementation in Liberia
In-country agreements with national partners and farmers organizations.

Rice –RYMV1 PRoject

Convention with CORAF/WECARD for the regional coordination of the RYMV project
Convention with Africa Rice for the backstopping of the RYMV project
Convention with INERA for the implementation of the RYMV project in Burkina Faso
Convention with CRI/CSIR for the implementation of the RYMV project in Ghana
Convention with NCRI for the implementation of the RYMV project in Nigeria
Convention with SLARI for the implementation of the RYMV project in Sierra Leone
Convention with CODERIZ for the evaluation of NIL varieties
Convention with CNRA for the implementation of the RYMV project in Burkina Faso
Convention with CNRA for the implementation of the RYMV project in Sierra Leone
Convention with National NGOs for the evaluation of NIL varieties
Convention with CNRA for the implementation of the RYMV project in Ghana
Convention with CNRA for the implementation of the RYMV project in Niger
Convention with CNRA for the implementation of the RYMV project in Nigeria.

APPENDICES

APPENDIX 1 –EXAMPLE OF EVALUATION DESIGN- YAM MINISETT PROJECT

This tool is designed to help you structure your evaluation, starting with the purpose and working through each question and their correlating data sources, designs, targets, and data collection and analysis plans.

Evaluation Name: _Final Evaluation of Institutional Support and Food Security Program (IFSP)__Improving the yam mini-sett technology
Evaluation Purpose: Determination of achievements under IFSP and determination for continuation under future funding
General Approach: Non experimental and Quasi experimental approaches

1. Question	2. Sub-question	3. Type of Sub-question (descriptive, normative or requires cause and effect linkage)	4. Measure or Indicator	5. Target or Standard (for Normative Questions only)	6. Baseline Data?
Q.1.1. What are the documented achievements against the expected list of program results and expectations?	1.1.A.1. How widely was the yam Minisett technology promoted ?	Descriptive Normative	Number of minisett seed distributed Geographical area covered	2 000 000 Seed	NA
	1.1.A.2. How widely was the technology demonstrated to the farming communities?	Descriptive Normative	Number of demonstration plots Number of visits to the plot organized Number of persons visiting the plots	200 plots	NA
	1.1.A.3. How many stakeholders and beneficiaries trained on the technology?	Normative	Number of each category of stakeholders	100 producers organizations 20 entrepreneurs 5 students	NA
	1.1.A.4. How many farmers actually used the minisett seeds for cultivation per year for 3 years	Descriptive	Number of farmers	NA	NA
	1.1.A.5. What other related technologies were developed	Descriptive	Technologies In pipeline Tested Released	NA	NA
	1.1.B.1. What are the institutional achievements (laboratories, equipment, materials supported)	Descriptive	Number		NA
	1.1.B.2. What are the capacities strengthening achievements (training, new positions created or filled)	Descriptive	Number	5 students	NA

	1.1.C. What are the partnerships developed and strengthened	Descriptive Normative	Number of MOU Number of contracts signed (research institutions and farmer and marketing and processing organisations) Number of joint activities in research and training	12 contracts	NA
	1.1.D.1 What are scientific publications by project staff and partners	Descriptive	Number in peer review journals		
	1.1.D.2. What are general/internal reports generated by project	Descriptive	Number of internal publish documents		
	1.1.D.3. What are the divulgation articles produced for the past 3 years	Descriptive	Number		

7. Data Source	8. Design Strategy for Question	9. Sample or Census	10. Data Collection Instrument	11. Data Analysis method/technique	12. Comments
Program leaders and projects and institutional records (provided by project leaders)	1.1.A.1. Non experimental (One Shot)	Sample	Interview / project leaders	Descriptive statistics	The verification of evidence of this achievements should be made
Program leaders and projects and institutional records (provided by project leaders)	1.1.A.2. Non experimental (One Shot)	Sample	Interview / project leaders	Descriptive statistics	The verification of evidence of this achievements should be made
Program leaders and projects and institutional records	1.1.A.3. Non experimental (One Shot)	Sample	Interview / project leaders	Descriptive statistics	The verification of evidence of this achievements should be made
Program leaders and projects and institutional records	1.1.A.4. Non experimental (Time series)	Sample	Interview / project leaders	Descriptive statistics	The verification of evidence of this achievements should be made
Program leaders and projects and institutional records	1.1.A.5. Non experimental (one-shot)	Sample	Interview / project leaders	Descriptive statistics	The verification of evidence of this achievements should be

					made
Program leaders and projects and institutional records Annual Reports	1.1.B.1. Non experimental	Sample	Interview / project leaders	Descriptive statistics	The verification of evidence of this achievements should be made
Program leaders and projects and institutional records	1.1.B.2. Non experimental	Sample	Interview / project leaders	Descriptive statistics	The verification of evidence of this achievements should be made

Program leaders and projects and institutional records	1.1.C. Non experimental	Sample	Interview / project leaders	Descriptive statistics	The verification of evidence of this achievements should be made
Program leaders and projects and institutional records	1.1.D.1. Non experimental	Sample	Interview / project leaders	Descriptive statistics	The verification of evidence of this achievements should be made
Program leaders and projects and institutional records	1.1.D.2. Non experimental	Sample	Interview / project leaders	Descriptive statistics	The verification of evidence of this achievements should be made
Program leaders and projects and institutional records	1.1.D.3. Non experimental (time series)	Sample	Interview / project leaders	Descriptive statistics	The verification of evidence of this achievements should be made

1. Question	2. Sub-question	3. Type of Sub-question (Could be descriptive, normative or requires cause and effect linkage)	4. Measure or Indicator	5. Target or Standard (for Normative Questions only)	6. Baseline Data?
Q.1.2. What factors (both internal and external to the program) helped or hinded the achievement of the program's expected outcomes as detailed in the cooperative agreement?	1.2.A.1. What external factors helped the achievement of program expected outcomes	Descriptive	Number Type Duration	NA	NA
	1.2.A.2. What external factors hindered the achievement of program expected outcomes	Descriptive	Number Type Duration	NA	NA
	1.2.B.1. What internal factors helped the achievement of program expected outcomes	Descriptive	Number Type Duration	NA	NA
	1.2.B.2. What internal factors hinded the achievement of program expected outcomes	Descriptive	Number Type Duration	NA	NA

7. Data Source	8. Design Strategy for Question	9. Sample or Census	10. Data Collection Instrument	11. Data Analysis method/technique	12. Comments
Program Leaders and projects and Program Annual Reports	1.2.A.1. Non experimental (One Shot or Cross sectional)	Sample (only in the countries visited)	Number and nature of factors	Frequency count / cross tabulation	Details of the circumstances
Program Leaders and projects and Program Annual Reports	1.2.A.2 Non experimental (One Shot or Cross sectional)	Sample (only in the countries visited)	Number and nature of factors	Frequency count / cross tabulation	Details of the circumstances
Program Leaders and projects and Program Annual Reports	1.2.A.3. Non experimental (One Shot or Cross sectional)	Sample (only in the countries visited)	Number and nature of factors	Frequency count / cross tabulation	Details of the circumstances
Program Leaders and projects and Program Annual Reports	1.2.A.4. Non experimental (One Shot or Cross sectional)	Sample (only in the countries visited)	Number and nature of factors	Frequency count / cross tabulation	Details of the circumstances

1. Question	2. Sub-question	3. Type of Sub-question (Could be descriptive, normative or requires cause and effect linkage)	4. Measure or Indicator	5. Target or Standard (for Normative Questions only)	6. Baseline Data?
Q.2. What adjustments, corrective actions, and/or areas for improvement are needed to ensure progress towards achieving expected results in similar future programs?	2.1.A.1. To what extent were the targets missed? / Quantity	Normative	Number of targets missed	As indicated in the logframe	NA
	2.1.A.2. To what extent were the targets missed? / Timing	Normative	Duration	As indicated in the logframe	NA
	2.1.B. For each missed target, what actions can be taken to correct in similar situation	Descriptive	Type Scale Level	NA	NA
	2.1.C. What can be done to set more realistic targets in the future	Descriptive	Type Scale Level	NA	NA

7. Data Source	8. Design Strategy for Question	9. Sample or Census	10. Data Collection Instrument	11. Data Analysis method/technique	12. Comments
Projects Logframe Project Reports	2.1.A.1. Non experimental (One Shot or Cross sectional)	Sample (only in the countries visited)	Analysis of Logframe of project	Descriptive statistics (frequencies, means, range)	Discussion with project participants
Projects Logframe Project Reports	2.1.A.2. Non experimental (One Shot or Cross sectional)	Sample (only in the countries visited)	Analysis of Logframe of project	Descriptive statistics (frequencies, means, range)	Discussion with project participants
Program Leaders Fields interviews with beneficiaries and stakeholders	2.1.B. Non experimental (One Shot or Cross sectional)	Sample (only in the countries visited)	Discussions Interviews	Consultative meeting and discussions with key stakeholders	Discussion with project participants
Review of design of similar Projects in the country or by donors	2.1.C. Non experimental (One Shot or Cross sectional)	Sample of project proposals and designs	Review of documents Desk review	Consultative meeting and discussions with key stakeholders on findings	Discussion with project designers

1. Question	2. Sub-question	3. Type of Sub-question (Could be descriptive, normative or requires cause and effect linkage)	4. Measure or Indicator	5. Target or Standard (for Normative Questions only)	6. Baseline Data?
Q.3. What specific opportunities exist to enhance effective program implementation and sustainability at the region level	3.1.A. To what extent did the countries involved in the project collaborate in project planning (based on Project Logframe)	Descriptive	Number Duration Type Scale	NA	NA
	3.1.B. To what extent did the countries involved in the project collaborate in project implementation (based on Project Logframe)	Descriptive	Number Duration Type Scale	NA	NA
	3.1.C. To what extent did the countries involved in the project collaborate in dissemination of project results	Descriptive	Number Duration Type Scale	NA	NA
	3.2. To what extent did CORAF program leaders engage in project planning, implementation and dissemination of results of projects	Descriptive	Number of meetings and workshops Field visits	NA	NA
	3.3. To what extent did CORAF bring experiences, lessons learned and results of project to bear on other countries	Descriptive	Number of syntheses of projects results Number of up-scaling designs developed Number of outreach communications realized	NA	NA

7. Data Source	8. Design Strategy for Question	9. Sample or Census	10. Data Collection Instrument	11. Data Analysis method/technique	12. Comments
Project Reports Projects Leaders	3.1.A. Non experimental Cross section One-shot	Sample	Interviews	Review and summarizing documents Descriptive statistics	
Project Reports Workshop reports Steering committee Reports	3.1.B. Non experimental Cross section One-shot	Sample	Interviews	Review and summarizing documents Descriptive statistics	
Project Reports Workshop reports Project Leaders	3.1.C. Non experimental Cross section One-shot	Sample	Interviews	Review and summarizing documents Descriptive statistics	
Program Leader Program Reports	3.2. Non experimental Cross section One-shot	Sample	Interviews	Review and summarizing documents Descriptive statistics	Intense discussions with projects leaders on the CORAF IAR4D model
Program Leader Program Reports	3.3. Non experimental Cross section One-shot	Sample	Interviews	Review and summarizing documents Descriptive statistics	Intense discussions with projects leaders on the CORAF up-scaling model

1. Question	2. Sub-question	3. Type of Sub-question (Could be descriptive, normative or requires cause and effect linkage)	4. Measure or Indicator	5. Target or Standard (for Normative Questions only)	6. Baseline Data?
Q.4. To what extent did IFSP interventions address cross cutting issues on credit availability	4.1.A. What factor analysis including credit and related inputs were undertaken among value chain actors in the countries?	Descriptive	Number of analysis Type of analysis Scope of analysis	NA	NA
	4.1.B. What interventions related to credit and other related inputs were undertaken among the value chain actors?	Descriptive	Type (microcredit, Bank, cooperative, Project-related revolving funds)	NA	NA
	4.1.C. What outcomes of these interventions benefited various	Descriptive	Number of planting materials acquired, produced or stored	NA	NA

and gender-based economic development constraints in different focus countries?	groups within value chain actors?		Measurement of area cultivated Measurement of cash income realized		
	4.1.D. How did the outcomes from the interventions benefit different gender categories	Descriptive	Measurement aggregated by gender and age groups	NA	NA
	4.2.A. What gender based analyses were undertaken to identify gender issues in the project?	Descriptive	Number of analysis Type of analysis Scope of analysis	NA	NA
	4.2.B. What interventions from the project involved or impacted women and youth?	Descriptive	Type (training, input distribution, storage, marketing) Number of interventions	NA	NA
	4.2.C. What impacts, positive or negative, in the project interventions had on women and youth	Descriptive	Measurements (4.2.B) aggregated by gender and age groups	NA	NA
	4.2.D. How have the benefits of project interventions contributed to women and youth empowerment in the countries?	Descriptive	Number of women and youth starting or expending their business	NA	NA

7. Data Source	8. Design Strategy for Question	9. Sample or Census	10. Data Collection Instrument	11. Data Analysis method/technique	12. Comments
Inception reports Annual reports Lead and partners institutions	4.1.A. Non experimental Cross section One-shot	Sample	Survey (informal)	Review and summarizing documents	
Annual reports Lead and partners institutions Beneficiaries	4.1.B. Non experimental Cross section One-shot	Sample	Survey (informal) targeting participants including beneficiaries	Descriptive statistics	
Annual reports Lead and partners institutions Beneficiaries	4.1.C. Non experimental Cross section One-shot Quasi experimental	Sample	Survey (formal and informal) targeting participants including beneficiaries	Descriptive statistics Unbalance analysis of variance	

	(similar focus group)				
Beneficiaries	4.1.D. Non experimental (selected groups)	Sample	Survey (formal and informal) targeting participants including beneficiaries	Means analyses and comparisons	
Annual reports Lead and partners institutions	4.2.A. Non experimental Cross section One-shot	Sample	Survey (informal)	Review and summarizing documents	
Annual reports Lead and partners institutions Beneficiaries	4.2.B. Non experimental Cross section One-shot	Sample	Survey (formal and informal) targeting participants including beneficiaries	Means analyses and comparisons	
Lead and partners institutions Beneficiaries	4.2.C. Non experimental Cross section One-shot	Sample	Survey (formal and informal) targeting participants including beneficiaries	Means analyses and comparisons	
Lead and partners institutions Beneficiaries	4.2.D. Non experimental Cross section One-shot	Sample	Survey (formal and informal) targeting participants including beneficiaries	Means analyses and comparisons	

MOU: memorandum of understanding

1. Question	2. Sub-question	3. Type of Sub-question (Could be descriptive, normative or requires cause and effect linkage)	4. Measure or Indicator	5. Target or Standard (for Normative Questions only)	6. Baseline Data?
Q.5. To what extent were the IS activities integrated into the SPS	5.1. A. How many project staff were involved in institutional capacity-building related activities during the project implementation period?	Descriptive	Number of researcher-hours	NA	NA
	5.1. B. How much time project staff devoted to institutional capacity-building related activities during the project implementation period?	Descriptive	Number of researcher-hours	NA	NA
	5.1. C. What proportion of project funds was directed at institutional capacity-building related activities?	Descriptive	Amount of project money allocated to IS support	NA	NA
	5.2.A. What evidence links project implementation to institutional strengthening with respect to physical material?	Descriptive	Presence of equipment, material and infrastructures	NA	NA
	5.2.B. What evidence exists to link project implementation to improved institutional visibility and recognition?	Descriptive	Peer reviews Perception from general International Assessment	NA	NA
	5.2.C. What evidence exists to link project implementation to improved institutional outputs?	Descriptive	Number of publications New funding associated with project	NA	NA

7. Data Source	8. Design Strategy for Question	9. Sample or Census	10. Data Collection Instrument	11. Data Analysis method/technique	12. Comments
Project Reports Projects Leaders	5.1.A. Non experimental Cross section One-shot	Sample	Survey (informal)	Review and summarizing documents	
Project Reports Projects Leaders	5.1.B. Non experimental Cross section One-shot	Sample	Survey (informal)	Review and summarizing documents	
Project Reports Projects Leaders Budget records	5.1.C. Non experimental Cross section One-shot	Sample	Examination of project accounts	Review and summarizing documents Descriptive statistics	Work with project leaders to examine the budget and financial statements in account department of COARF and Beneficiaries institutions
Institutional annual report Visit to facilities during evaluation	5.2.A. Non experimental Cross section One-shot	Sample	Survey (informal) Observation	Review and summarizing documents Descriptive statistics	
Peer reviews reports Institutional assessment reports	5.2.B. Non experimental Cross section One-shot	Sample	Survey (informal) targeting participants including beneficiaries	Review and summarizing documents Descriptive statistics	
Institutional assessment reports Annual project Reports	5.2.C. Non experimental Cross section One-shot	Sample	Survey (informal)	Review and summarizing documents Descriptive statistics	

APPENDIX 2 – EXAMPLE OF QUESTIONNAIRE INSTRUMENT FOR COUNTRY PROJECT COORDINATOR- YAM MINISETT PROJECT

Questionnaire For The Project Leaders **Yam Miniset**

Project: Promotion of improved yam minisett technology to improve yam seed supply and crop productivity
Country:

Evaluation Question 1.1 **What are the documented achievements against the expected list of program results and expectations?** **Please provide comments to buttress your answer: what, how, when, examples, numbers etc.**
1.1.A.1. How widely was the yam Minisett technology promoted ?
1.1.A.2. How widely was the technology demonstrated to the farming communities?
1.1.A.3. How many stakeholders and beneficiaries trained on the technology?
1.1.A.4. How many farmers actually used the minisett seeds for cultivation per year for 3 years
1.1.A.5. What other related technologies were developed in each of these countries ?
1.1.B.1. What are the institutional achievements (laboratories, equipment, materials supported)
1.1.B.2. What are the capacities strengthening achievements (training, new positions created or filled)
1.1.C. What are the partnerships developed and strengthened
1.1.D.1 What are scientific publications by project staff and partners

1.1.D.2. What are general/internal reports generated by project
1.1.D.3. What are the divulgation articles produced for the past 3 years

Evaluation Question 1.2. What factors (both internal and external to the program) helped or hindered the achievement of the program's expected outcomes as detailed in the cooperative agreement? **Please provide comments to buttress your answer: what, how, when, examples, numbers etc.**
1.2.A.1. What external factors helped the achievement of project expected outcomes?
1.2.A.2. What external factors hindered the achievement of project expected outcomes?
1.2.B.1. What internal factors helped the achievement of project expected outcomes?
1.2.B.2. What internal factors hindered the achievement of project expected outcomes?

Evaluation Question 2. What adjustments, corrective actions, and/or areas for improvement are needed to ensure progress towards achieving expected results in similar future programs? **Please provide comments to buttress your answer: what, how, when, examples, numbers etc.**
2.1.A.1. To what extent were the targets missed? / Quantity
2.1.A.2. To what extent were the targets missed? / Timing
2.1.B. For each missed target, what actions can be taken to correct in similar situation?
2.1.C. What can be done to set more realistic targets in the future

Evaluation Question 3. What specific opportunities exist to enhance effective program implementation and sustainability at the region level? **Please provide comments to buttress your answer: what, how, when, examples, numbers etc.**
3.1.A. To what extent did the countries involved in the project collaborate in project planning? (Based on Project Logframe)
3.1.B. To what extent did the countries involved in the project collaborate in project implementation? (Based on Project Logframe)
3.1.C. To what extent did the countries involved in the project collaborate in dissemination of project results
3.2. To what extent did CORAF program leaders engage in project planning, implementation and dissemination of results of projects?
3.3. To what extent did CORAF bring experiences, lessons learned and results of project to bear on other countries

Evaluation Question 4. To what extent did IFSP interventions address cross cutting issues on credit availability and gender-based economic development constraints in different focus countries? **Please provide comments to buttress your answer: what, how, when, examples, numbers etc.**	
4.1.A. What factor analysis including credit and related inputs were undertaken among value chain actors in the countries?	
4.1.B. What interventions related to credit and other related inputs were undertaken among the value chain actors?	
4.1.C. What outcomes of these interventions benefited various groups within value chain actors?	
4.1.D. How did the outcomes from the interventions benefit different gender categories?	
4.2.A. What gender-based analyses were undertaken to identify gender issues in the project?	
4.2.B. What interventions from the project involved or impacted:	
Women?	
Men?	
Youth?	
4.2.C. What impacts, positive or negative, in the project interventions had on:	

Men?	
Women?	
Youth?	
4.2.D. How have the benefits of project interventions contributed in the country to empowerment of	
Men?	
Women?	
Youth?	

Evaluation Question 5. To what extent were the IS activities integrated into the SPS? **Please provide comments to buttress your answer: what, how, when, examples, numbers etc.**
5.1. A. How many project staff were involved in institutional capacity-building related activities during the project implementation period?
5.1. B. How much time project staff devoted to institutional capacity-building related activities during the project implementation period?
5.1. C. What proportion of project funds was directed at institutional capacity-building related activities?
5.2.A. What evidence links project implementation to institutional strengthening with respect to physical material?
5.2.B. What evidence exists to link project implementation to improved institutional visibility and recognition?
5.2.C. What evidence exists to link project implementation to improved institutional outputs?

Thank You for Your Time.

APPENDIX 3 – QUESTIONNAIRE INSTRUMENT FOR CORAF PROGRAM LEADER- EXAMPLE FOR YAM MINISETT PROJECT

Questionnaire for the Program Leader At Coraf **Yam Minisett**

PROJECT: Promotion of improved yam minisett technology to improve yam seed supply and crop productivity
COUNTRIES: GHANA, NIGERIA, TOGO, BENIN

Evaluation Question 1.1 **What are the documented achievements against the expected list of program results and expectations?** ***Please provide comments to buttress your answer: what, how, when, examples, numbers etc.***	
1.1.A.1. How widely was the yam Minisett technology promoted ?	
Ghana	
Nigeria	
Togo	
Benin	
1.1.A.2. How widely was the technology demonstrated to the farming communities?	
Ghana	
Nigeria	
Togo	
Benin	

1.1.A.3. How many stakeholders and beneficiaries trained on the technology?	
Ghana	
Nigeria	
Togo	
Benin	
1.1.A.4. How many farmers actually used the minisett seeds for cultivation per year for 3 years	
Ghana	
Nigeria	
Togo	
Benin	
1.1.A.5. What other related technologies were developed in each of these countries ?	
Ghana	
Nigeria	
Togo	
Benin	
1.1.B.1. What are the institutional achievements (laboratories, equipment, materials supported)	
Ghana	
Nigeria	
Togo	
Benin	
1.1.B.2. What are the capacities strengthening achievements (training, new positions created or filled)	
Ghana	
Nigeria	
Togo	
Benin	
1.1.C. What are the partnerships developed and strengthened	

Ghana	
Nigeria	
Togo	
Benin	
1.1.D.1 What are scientific publications by project staff and partners	
Ghana	
Nigeria	
Togo	
Benin	
1.1.D.2. What are general/internal reports generated by project	
Ghana	
Nigeria	
Togo	
Benin	
1.1.D.3. What are the divulgation articles produced for the past 3 years	
Ghana	
Nigeria	
Togo	
Benin	

Evaluation Question 1.2. What factors (both internal and external to the program) helped or hindered the achievement of the program's expected outcomes as detailed in the cooperative agreement? **Please provide comments to buttress your answer: what, how, when, examples, numbers etc.**	
1.2.A.1. What external factors helped the achievement of project expected outcomes?	
Ghana	
Nigeria	
Togo	
Benin	
1.2.A.2. What external factors hindered the achievement of project expected outcomes?	
Ghana	
Nigeria	
Togo	
Benin	
1.2.B.1. What internal factors helped the achievement of project expected outcomes?	
Ghana	
Nigeria	
Togo	
Benin	
1.2.B.2. What internal factors hindered the achievement of project expected outcomes?	
Ghana	
Nigeria	
Togo	
Benin	

Evaluation Question 2. What adjustments, corrective actions, and/or areas for improvement are needed to ensure progress towards achieving expected results in similar future programs? **Please provide comments to buttress your answer: what, how, when, examples, numbers etc.**	
2.1.A.1. To what extent were the targets missed? / Quantity	
Ghana	
Nigeria	
Togo	
Benin	
2.1.A.2. To what extent were the targets missed? / Timing	
Ghana	
Nigeria	
Togo	
Benin	
2.1.B. For each missed target, what actions can be taken to correct in similar situation?	
Ghana	
Nigeria	
Togo	
Benin	
2.1.C. What can be done to set more realistic targets in the future	
Ghana	
Nigeria	
Togo	
Benin	

Evaluation Question 3. What specific opportunities exist to enhance effective program implementation and sustainability at the region level? **Please provide comments to buttress your answer: what, how, when, examples, numbers etc.**	
3.1.A. To what extent did the countries involved in the project collaborate in project planning? (Based on Project Logframe)	
Ghana	
Nigeria	
Togo	
Benin	
3.1.B. To what extent did the countries involved in the project collaborate in project implementation? (Based on Project Logframe)	
Ghana	
Nigeria	
Togo	
Benin	
3.1.C. To what extent did the countries involved in the project collaborate in dissemination of project results	
Ghana	
Nigeria	
Togo	
Benin	
3.2. To what extent did CORAF program leaders engage in project planning, implementation and dissemination of results of projects?	
Ghana	
Nigeria	
Togo	
Benin	
3.3. To what extent did CORAF bring experiences, lessons learned and results of project to bear on other countries	
Ghana	
Nigeria	
Togo	
Benin	

Evaluation Question 5. To what extent were the IS activities integrated into the SPS? Please provide comments to buttress your answer: what, how, when, examples, numbers etc.	
5.1. A. How many project staff were involved in institutional capacity-building related activities during the project implementation period?	
Ghana	
Nigeria	
Togo	
Benin	
5.1. B. How much time project staff devoted to institutional capacity-building related activities during the project implementation period?	
Ghana	
Nigeria	
Togo	
Benin	
5.1. C. What proportion of project funds was directed at institutional capacity-building related activities?	
Ghana	
Nigeria	
Togo	
Benin	
5.2.A. What evidence links project implementation to institutional strengthening with respect to physical material?	
Ghana	
Nigeria	
Togo	
Benin	
5.2.B. What evidence exists to link project implementation to improved institutional visibility and recognition?	
Ghana	
Nigeria	
Togo	
Benin	
5.2.C. What evidence exists to link project implementation to improved institutional outputs?	
Ghana	
Nigeria	
Togo	
Benin	

Thank You for Your Time

APPENDIX 4- QUESTIONNAIRE INSTRUMENT USED END-USER BENEFICIARIES INTERVIEW.

Technology – Research Beneficiary and Service Users perspectives on SPS Projects

Introduction

Good morning/Good afternoon. Thank you so much for taking time to help us with this short interview. We are working with CORAF and its donor of the Technology dissemination projects on Staple Crops and Biotechnology to find out how the said projects and their accrued benefits affected your life and those in your household and community so CORAF and donor can make decisions on future collaboration.

Enumerator Please Complete The Following Information Before Starting Of Interview

Enumerator's Name: …… Institute Affiliation……

Gender of Enumerator: Please tick only one of the Listed below

□ 1 Female □ Male

Questionnaire Serial Number: ……

Country where this interview is taking place: ……..

Date of the Interview YYYY MM DD……..

Project Identification Number and Name: Please tick ONLY ONE of the listed below

□ 1. Sorghum Resistant to Striga

□ 2 .Cowpea Bt.

□ 3. Rice Resistant to Yellow Virus Disease RYMV1

□ 4. Post- Harvest Processing of rice, millet/sorghum and cassava

□ 5. Yam Minisett Promotion

□ 6. Cassava in-vitro tissue methods and promotion

Questions Directed at the Person/Group Being Interviewed

1. Name of Respondent (Person being interviewed)……..

2. Gender of Respondent : □ 1 Female □ 2 Male

3. Age Category of Respondent (Person being interviewed)

□ 1 Adult female (older than 30 years)

□ 2 Adult male (older than 30 years)

□ 3 Youth female (30 years or younger)

□ 4 Youth male (30 years or younger)

4. User Category of Respondent (Person being interviewed)

□ 1 Producer (eg. Seed producer, crop farmer)
□ 2 Processor (eg. Transformer of raw foods into products)
□ 3 Input dealers (fertilizers, chemicals)
□ 4 User-based Organizations (Farmer Associations, Processor Assoc., Marketing Assocs)

5. How did You (Respondent) become a participant or beneficiary of the Project?

□ 1 Approached by Project Staff or Coordinator
□ 2 Introduced to Project by a relative or friend
□ 3 Joined on my own accord out of curiosity/enthusiasm
□ 4 Nominated by my Association or Organization
□ 5 other (please specify)

6. How long were you associated with the Project during its implementation period?

□ 1 Less than 6 months
□ 2 Six (6) months to 12 months
□ 3 Twelve (12) to 24 months

7. How long did you continue to interact with Project Staff or Project Coordinators after project implementation ended?

□ 1 Less than 3 months
□ 2 Three (3) months to 12 months
□ 3 Twelve (12) to 18 months (till now July/August 2014)

8. What are in your view 3 key interventions the Project brought to you as a participant, as a community member or as a member of an Association? Please briefly name the interventions according to your own understanding

1. Intervention 1: ……..
2. Intervention 2: ……..
3. Intervention 1: ……..

9. Do you recall any of the Project interventions that enabled you to obtain any of the following credit facilities?

□ Cash or Cheque loan or credit from a Regular Bank, Micro-finance Institution or Cooperative (C)
□ Seeds or other planting materials on credit basis or loan to be paid for later (S)
□ Fertilizer or manure on credit/loan to be paid later (F)
□ Storage space for produce to be paid later (ST)
□ Gifts of cash, seeds, fertilizer, storage, etc (GF)

10. For each of the benefits you selected, kindly give us an idea of the level or scale of improvement (1=Nearly doubled; 2= Above average; 3= Average; 4= Below Average; 5=Very little improvement)

□ Cash or Cheque loan **(C)** □ **1=(80-100%), 2= (60-80%), 3=(40-60%), 4= (20-40%), 5= (<20%) :**
□ Seeds **(S)** □ **1=(80-100%), 2= (60-80%), 3=(40-60%), 4= (20-40%), 5= (<20%)**
□ Fertilizer or manure **(F)** □ **1=(80-100%), 2= (60-80%), 3=(40-60%), 4= (20-40%), 5= (<20%)**
□ Storage space **(ST)** □ **1=(80-100%), 2= (60-80%), 3=(40-60%), 4= (20-40%), 5= (<20%)**
□ **Gifts (GF)** □ **1=(80-100%), 2= (60-80%), 3=(40-60%), 4= (20-40%), 5= (<20%)**

11. If you were able to access such a facility during the project implantation how easy or difficult was it for you to obtain or access such loan or credit facility?
Kindly describe your experience in trying to access a credit or loan facility
……
……
……

12. If you were able to access credit/loan kindly describe how each of the credit facility benefit you in your business/enterprise
……
……
……

13. Kindly state if the benefits from your business/enterprise (farming, processing, marketing, etc) contributed to the improvement in any of the following:
□ 1 Food Security (FS)
□ 2 Cash incomes (CI)
□ 3 Better Nutrition at household level (BN)
□ 4 Payment of School Fees (SF)
□ 5 Payment of Hospital Fees (HF)

14. Give indication of the level or scale of the improvement obtained
(1=Nearly doubled; 2= Above average; 3= Average; 4= Below Average; 5=Very little improvement)
□ Food Security **(FS)** □ **1=(80-100%), 2= (60-80%), 3=(40-60%), 4= (20-40%), 5= (<20%) :**
□ Cash Income **(CI)** □ **1=(80-100%), 2= (60-80%), 3=(40-60%), 4= (20-40%), 5= (<20%)**
□ Better Nutrition **(BN)** □ **1=(80-100%), 2= (60-80%), 3=(40-60%), 4= (20-40%), 5= (<20%)**

□ Payment of School Fees **(SF)** □ **1=(80-100%), 2= (60-80%), 3=(40-60%), 4= (20-40%), 5= (<20%)**
□ Payment Hospital Fees **(HF)** □ **1=(80-100%), 2= (60-80%), 3=(40-60%), 4= (20-40%), 5= (<20%)**

15. For the areas of improvement named in the previous question selected by you, which members of the household enjoyed the MOST benefits
(1= Adult females (AF): 2 = Adult Males (AM): 3=Youth Female (YF): 4=Youth Male (YM): 5=All)
Food Security : (1= Adult females: 2 = Adult Males: 3=Youth Female: 4=Youth Male: 5=All)
Cash Income: (1= Adult females: 2 = Adult Males: 3=Youth Female: 4=Youth Male: 5=All)
Better Nutrition: (1= Adult females: 2 = Adult Males: 3=Youth Female: 4=Youth Male: 5=All)
Payment of School Fees:(1= Adult females: 2= Adult Males: 3=Youth Female: 4=Youth Male: 5=All)
Payment of Hospital Fees: (1= Adult females: 2= Adult Males: 3=Youth Female: 4=Youth Male: 5=All)

16. Would you say that the implementation of this Project POSITIVELY BENEFITED or IMPACTED you, or your household?
□ 1 YES
□ 2 NO

17. If your Answer to the previous question is YES, who in your household BENEFITED MOST?
□ 1 Adult females (older than 30 years)
□ 2 Adult males (older than 30 years)
□ 3 Youth females (30 years or younger)
□ 4 Youth males (30 years or younger)

18. Would you say that the implementation of this Project NEGATIVELY AFFECTED or IMPACTED you, or your household?
□ 1 YES
□ 2 NO

19. If your Answer to the previous question is YES, who in your household were AFFECTED MOST?
□ 1 Adult females (older than 30 years)
□ 2 Adult males (older than 30 years)
□ 3 Youth females (30 years or younger)
□ 4 Youth males (30 years or younger)

20. If you reported that you received benefit from participating in the Project how have the benefits from the Project enabled you to contribute to empowerment (improved self esteem, feeling of improved usefulness to household or community). Kindly explain

……
……
……

21. Do you know of other people in your community who participated in the Project who also benefited from the Project as you did?

□ 1 YES
□ 2 NO

22. If your ANSWER to the previous question is YES, Please provide information about those people

……
……
……

23. Are you aware that a "Platform" or "Discussion Group " or "Business Group" was formed from the Project that involve previous project participants or beneficiaries?

□ 1 Yes
□ 2 No

24. Have you participated in one of such groups (Platform, Discussion, Business) as a member since after the end of implementation of the Project?

□ 1 Yes
□ 2 No

25. If your answer to the previous Question is "Yes" could you kindly explain what roles you played and any benefits you personally gained.

……
……
……

26. What were your involvement in the project interventions-----What exactly did you do in the project or for the project. Kindly explain

……
……
……..

27. Given the experiences you had on the Project, and how the interventions affected you or impacted on you how interested would you be in participating in another similar project in your area or community?

□ 1 Very interested

□ 2 Interested

□ 3 Somewhat interested

□ 4 Neutral (No Opinion)

□ 5 Not at all interested

APPENDIX 5-- TABLE OF PROJECT LEADERS ASSESSMENT OF CORAF PROGRAM LEADERS ON PROJECT RELATED PERFORMANCE

Project / Level of partnership		Number of project Leaders giving a certain response				
		collaboration of NARS in planning	collaboration of NARS in implementation	collaboration of NARS in dissemination	engagement of CORAF program leaders	capitalization /Exchange of experiences by CORAF
Striga	No					
	Low			1		1
	Meduim	3				1
	High		3	2	3	1
Bt Cowpea	No			1		
	Low					
	Meduim					1
	High	1	1		1	
Post-Harvest	No					
	Low	2		2		1
	Meduim		1	1	2	
	High	5	6	4	4	5
Cassava tissue culture	No	1	1	3		
	Low	1	1	1	2	2
	Meduim	1	1			1
	High	2	2		3	2
Rice RYMV	No					
	Low			1		
	Meduim					
	High	3	4	2	3	3
Yam minisett	No					
	Low			1		
	Meduim					2

	High	3	3	3	3	1
Total of responses (absolute value)		**22**	**23**	**22**	**21**	**21**
Total in %	**No**	**4.5%**	**4.3%**	**18.2%**	**0%**	**0%**
	Low	**13.6%**	**4.3%**	**27.3%**	**9.5%**	**19.0%**
	Meduim	**18.2%**	**8.7%**	**4.5%**	**9.5%**	**23.8%**
	High	**63.6%**	**82.6%**	**50.0%**	**81.0%**	**57.1%**

Table 2 : Perceptions of the beneficiaries regarding proposed technologies seen by project leaders

	None	Low	Middle	High	Total number of respondants
Effectiveness of improved technologies	4,6%	9.1%	4.6%	81.8%	22
Added value of the improved technologies		5.9%	17.7%	76.5%	17
Level of validation with beneficiaries		0%	5.3%	94.7%	19

APPENDIX 6 -EXTERNAL AND INTERNAL FACTORS DEEMED AS HELPING OR HINDERING ACHIEVEMENT OF PLAANED PROJECT OUTCOMES

SPS Project	External Factors Helping Project Achievements	External Factors Hindering Project Achievements
Post Harvest	The existence of institutions with the capacity (scientific, laboratory, etc.) in food science to support capacity strengthening of beneficiaries. Sound policies that support interventions. Existence of markets to purchase processed products	Slow funding cycle: Transfer of funds to partners - partners justification funds/ CORAF certification - Request for funds from USAID/WA – Receipt of Funds from USAID/WA – Transfer of funds.
Striga-Sorgum	Good planning with regional and national stakeholders; Contribution by partners such as NGOs; Expertise from regional and national partners; Government policy promote sorghum	Late submission of financial reports and long period between submission of report from CORAF/WECARD to USAD and receipt of funds. Climate change, dry spells and drought Plus Arm conflicts in Mali
Yam Minisett	The regional approach where stakeholders and scientists learnt from each other. Support from the NARS management, using their systems to support project implementation. The national policies that favored the promotion of roots and tubers.	Slowness in the transfer of funds due to the procedure of disbursement at project level, justification to CORAF/WECARD secretariat for certification before funds are requested from USAID, etc.
Bt Cowpea	Burkina Faso: The link with other USAID initiatives (other Bt-cowpea project involving Burkina, Nigeria and Ghana), The link with AATF. The availability of the an accessible Bt technology for research Mali/Togo: The link with AATF.The availability of the an accessible Bt technology for research	Burkina Faso: - The slow response in the evaluation of the CFT applications from the National Biosafety Agency: -The withdrawal of USAID funding in the middle of the project implementation: The heavy financial procedure for the disbursement of USAID funds Mali The absence of decrees of application of the Biosafety law at the beginning of the project. The withdrawal of USAID funding Togo: - The absence of decrees of application of the Biosafety law at the beginning of the project

		- The withdrawal of USAID funding - The very precautious attitude of the Togolese research system vis-à-vis GMs
Cassava Tissue Culture	Ghana The involvement commitment of IITA in: - Providing sanitized improved cassava varieties, - Participating in cleaning the local cultivars collected in different countries - Training project scientists and technicians in methods of in vitro cleansing, multiplication and in virus indexing	Ghana The inappropriate financial reporting system that makes it very difficult to collect evidences at the ground level in countries (from different implementing partners), transfer them to the national coordinator who in turn compile them and send to the regional coordinator who will report to CORAF, every month. This provokes delays in money transfer and endangers activities implementation on the ground. The early ending of the GFSR projects (started later than planned) The unstable period of 2013 to early 2014 in fund availability from USAID The change of focus between the GFSR and the FTF initiative
Rice-Rymv1	Côte d'Ivoire The strong commitment of Africa Rice Center in: - providing foundation seeds - training project scientists and technicians - accompanying the project implementation	Côte d'Ivoire -The inappropriate financial reporting system that makes it very difficult to collect evidences at the ground level in countries (from different implementing partners), transfer them to the national coordinator who in turn compile them and send to the regional coordinator who will report to CORAF, every month. This provokes delays in money transfer and endangers activities implementation on the ground. -The early ending of the GFSR projects (started later

		than planned) - The unstable period of 2013 to early 2014 in fund availability from USAID - The change of focus between the GFSR and the FTF initiative

SPS Project	Internal Factors Helping Project Achievements	Internal Factors Hindering Project Achievements
Post Harvest	Good planning, review, monitoring and evaluation, follow up communication. The existence of a good financial/administrative department;	Program supervision in the field was weak and M&E system at CORAF/WECARD Secretariat was equally weak. Due to pressure at the secretariat, the program manager and the M&E Team were not able to adequately visit the project sites and partners at their locations.
Striga-Sorgum	Good planning; annual review and planning; follow – ups and monitoring (financial and technical)	Senegal: ;Bureaucratic process; absence of signatories sometime; delay in submission of reports; in-correct invoices and receipts; poor quality reports. Mali :Bureaucratic process; absence of signatories sometime; delay in submission of reports; in-correct invoices and receipts; poor quality reports. Burkina Faso: Bureaucratic process; absence of signatories sometime; delay in submission of reports; in-correct invoices and receipts; poor quality reports
Yam Minisett	The regional approach where stakeholders and scientists learnt from each other. Support from the NARS management, using their systems to support project implementation. The national policies that favored the promotion of roots and tubers. Good planning, the annual review and planning system, occasional field supervision, frequent communication between the CORAF/WECARD Secretariat and the Project Coordinators, good financial auditing at CORAF/WECARD. In-country, collaboration with other subject matter specialists, administrative and financial management teams, etc. The existence of national capacity and infrastructure (fields, laboratories, etc	Ghana: Slow bureaucratic processes in the financial management cycle NARS-CORAF/WECARD-USAID; slowness interrupts activities. Nigeria: Slow bureaucratic processes in the financial management cycle NARS-CORAF/WECARD-USAID; slowness interrupts activities. Togo: Slow bureaucratic processes in the financial management cycle NARS-CORAF/WECARD-USAID; slowness interrupts activities.

SPS Project	Internal Factors Helping Project Achievements	Internal Factors Hindering Project Achievements
	with other subject matter specialists, administrative and financial	Benin: Slow bureaucratic processes in the financial management cycle NARS-CORAF/WECARD-USAID; slowness interrupts activities
Bt Cowpea	Burkina Faso The proactive attitude of Burkina Faso research system - The experience of the Burkina Faso team - The availability of an artificial infestation system and skills in Burkina Faso (Maruca rearing and infestation protocols) Mali Same as above (the Burkina Faso commitment helped the project overall) Togo Same as above (the Burkina Faso commitment helped the project overall). The availability of scientists dedicated to Cowpea research	Burkina Faso In its conception, the project omitted the necessity to obtain an authorization from the National Biosafety Agency before starting the Confined Field Trials Mali The slow pace of publication of the Biosafety law decrees of application Togo The very precautious attitude of the National research system vis-à-vis GM crops
Cassava Tissue Culture	Ghana - The existence of a strong Cassava Program - The commitment of the first project regional coordinator - The existence of a well experienced team in tissue culture	Ghana The bad sanitary (fungi infection) of virus cleaned vitro plants sent to countries by IITA (inadequate sealing). Project team had to go through several additional cleaning steps before starting experiments, which delayed considerably the delivery of critical results. - Changing of the regional coordinator: the

SPS Project	Internal Factors Helping Project Achievements	Internal Factors Hindering Project Achievements
	- The plan to transform the Biotechnology lab of CRI into the regional Centre of Excellence for Roots and Tuber of the WAAPP program Côte d'Ivoire The existence of a strong Cassava Program - The existence of a well experienced team in tissue culture and cassava breeding Benin The existence of a strong Cassava Program - The existence of a well experienced team in tissue culture working on cassava projects Sierra Leone -The existence of a strong Cassava Program Liberia The commitment to develop a strong Cassava Program Togo - The existence of a strong Cassava Program - The existence of a well experienced team in tissue culture working on cassava projects Niger -The commitment to develop a strong Cassava Program	project regional coordination didn't work - The weak result based reporting capacity of coordinators - Information among and between project teams didn't flow within countries and at the regional level - The Innovation Platforms was not formally put in place - Many countries are slow in justifying the expenses, hence, blocking all the system and slowing down the implementation pace.
Rice-RYMV1	Côte d'Ivoire The existence of a strong Rice Program The strong experience of project coordinator	Côte d'Ivoire - The low quantity of foundation seed sent to countries by Africa Rice. Project team had to

SPS Project	Internal Factors Helping Project Achievements	Internal Factors Hindering Project Achievements
	Burkina Faso The existence of a strong Rice Program The strong experience of project coordinators Sierra Leone The strong experience of project coordinator The participation of Farmers association in the program implementation Ghana The existence of a strong Rice Program The strong experience of project coordinator Nigeria The existence of a strong Rice Program The strong experience of project coordinator	multiply these seeds before starting experiments, which delayed considerably the delivery of critical results. - Changing of two national coordinators (Burkina Faso and Ghana) - The weak result based reporting capacity of coordinators, - The slow processing of the procurement of Molecular Biology equipment for countries at CORAF/WECARD executive Secretariat level

APPENDIX 7 – TARGETS MISSED BY PROJECTS ACTIONS TO ADDRESS SIMILAR SITUATIONS IN FUTURE

Targets missed by Projects (Numbers, Quantity)	Targets missed by Projects (Timing)	Actions to correct similar situations in future	Ways to Set More Realistic Targets in future
Post - Harvest Most of the targets were achieved according to the logframe. Conservatively, about 20% of targets for training was missed.	**Post - Harvest** Within the time frame of 2 years, 30% of targets was missed but this was compensated by extension of time by one year.	**Post Harvest** Adequate timeframe for project be given; two years was so short considering the time it takes to plan and launch projects, sign contracts and transfer funds. Additionally, the project completing process needs time. Furthermore the funding cycle is time consuming and needs to be streamlined to accelerate project implementation.	**Post Harvest** Longer periods for project; funding system should be improved to ensure that project activities are not interrupted in the field due to lack of funds. Project implementers must be cautioned not to be over-ambitious and to set realistic targets based, taking into consideration the slow administrative and financial management system.
Striga-Sorghum The targets were missed by 30% at the end of two years but the project lifespan was prolonged by one year to catch up to 100%.	**Striga-Sorghum** Senegal: The planned period was missed by 30% at the end of two years but the project lifespan was prolonged by one year to catch up to 100%. Mali: The planed period was missed by 30% at the end of two years but the project lifespan was prolonged by one year to catch up to 100%.	**Striga-Sorghum** Adequate project lifespan must be given due to delay in starting activities due to the development of contracts and transfer of funds. Instead of three years a project can be given four-year lifespan.	**Striga-Sorghum** Project implementing partners should not over ambitious; clear priority should be set and achievable targets be established. Time frame should always be three years or more but not two years to allow good start, with good institutional and administrative arrangements at regional and national level and also permit systematic processes in phasing out at the end. .

	Burkina Faso: The planned period was missed by 30% at the end of two years but the project lifespan was prolonged by one year to catch up to 100%.		
Yam Minisett Ghana: In terms of target farmers, the achievement was highly attained up to at least 90%; in terms of the production of yam mini-setts the target achieved will be 50% Nigeria: In terms of target farmers, the achievement was highly attained up to at least 100%; in terms of the production of yam mini-setts the target achieved will be about 60% Togo/Benin: In terms of target farmers, the achievement was highly attained up to at least 100%; in terms of the production of yam mini-setts the target achieved will be about 80%	**Yam Minisett** Ghana: 30% of the target time was missed but was compensated by the extension of the project period up to December, 2012 (three years instead of two years) Nigeria: 40% of the target time was missed. The program in Nigeria was curtained at the end of 2011 due to poor management of funds Togo/Benin: 30% of the target time was missed but was compensated by the extension of the project period up to December, 2012 (three years instead of two years)	**Yam Minisett** Ghana: In terms of time, the project lifespan should be at least 3 years to make room for the commencement processes, signing of contracts and transfer of initial funds, etc. and make room for project completion processes. In terms of the yam minisett produced, irrigation facilities should be provided to minimize losses and realistic targets must be set.	**Yam Minisett** Based on experience, funds transfer mechanism should improve and targets must be reduced at the time of evaluating project proposal and at the time of planning, and annual review.
Bt Cowpea **No Information**	No Information	No Information	No Information
Cassava Tissue Culture Ghana: CRI/CSIR didn't play the role expected:	**Cassava Tissue Culture** The USAID GFRS funding stopped at the end of 2011,	**Cassava Tissue Culture** Reorganize the coordination of the project	**Cassava Tissue Culture** Extend the life of projects to 5 years

•The regional coordination was defective, •The in vitro gene-bank of cassava cultivars was not conserved adequately, leading to the loose of the majority of accessions, •The targets for in vitro micro-propagation of cultivars were not met •Consequently, the target for cutting production and distribution was not met **•Côte d'Ivoire** -There was some confusion in the coordination mechanism at the national level The targets for in vitro micro-propagation was met at approximately only 5% -No cutting production was reported **•Benin** -Although Benin was the best model in the project implementation, "only" 30 ha of cleaned cutting out of 300 expected was produced **•Sierra Leone** The in vitro multiplication of planting material from Sierra Leone was supposed to be done in Ghana, along	approximately one year after the first funds were transferred to countries. All the equipment was in place and the teams started delivering the results. Everything stopped until early 2014, when the continuation of the project with funding from WAAPP was put in place.	•Reconstitute the cassava germplasm, •Organize more training in tissue culture and virus indexation, •Organize training of farmers •Improve the fund disbursement pace •Put in place a more efficient M&E mechanism •Increase synergistic efforts with the other initiatives (WAAPP, FAO, FIDA, etc.)	- Start with putting in place the Innovation platforms in order to properly evaluate the capacity of actors and set the targets accordingly

with the training of the Sierra Leonean researchers. The defection of CRI didn't allow any progress. •**Liberia** Same situation as in Sierra Leone •**Togo** -The targets for in vitro micro-propagation was met at approximately only 5% -No cutting production was reported			
Rice- RYMV1 Globally, two main target were missed: -The capacity strengthening in laboratory equipment of countries (all the five institutions involved were planned to be equipped) -The production of seeds for distribution to farmers (1000 farmers per country were targeted to receive seeds)	**Rice- RYMV1** Officially, under the GFSR initiative, no fund could be transferred after December 2012. They procurement process which was almost completed for the acquisition of laboratory equipment was stopped. Therefore, the production and distribution of seeds could not continue because the lab equipment was supposed to be used in the checking of seed quality before distribution.	**Rice-RYMV1** Procure the lab equipment and train technicians and researchers in its use Put in place Innovations Platforms for the production and distribution of quality seeds	**Rice-RYMV1** Extend the life of projects to 5 years Start with putting in place the Innovation platforms in order to properly evaluate the capacity of actors and set the targets accordingly