Education and Research in Agriculture (ERA)

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USAID/ERA Third Quarterly Report: April to June 2011

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Executive Summary

This quarterly report presents activities accomplished by Virginia Tech and its consortium of universities between April to June, 2011. The report will show how activities led to further the goals of USAID/ERA in Senegal.

USAID/ERA is linked to USAID's Strategic Objective of Increased inclusive economic growth and Feed the Future Goal to Sustainably Reduce Global Poverty and Hunger. USAID/ERA is further guided by a First level objective 2: Increased Trade, Intermediate Result, Increased institutional and Human Resources Capacity. USAID/ERA is part of the overall strategy of the Economic Growth Office (EGO) to create conditions for increased economic growth through increased agricultural production. It is also committed to improve nutritional status among the most disadvantaged population groups in the country. Increased capacity of agricultural education and training institutions will bring about a more informed and a more effective workforce capable of introducing more productive agricultural information and technologies to the agricultural sector as a whole.

The general objective of the program is to develop the human and institutional capacities of agricultural education and training institutions in Senegal. There are 4 universities with agricultural programs, University of Gaston Berger (UGB), University of Thiès, (UT) which includes two institutions of Ecole Nationale Supérieure de l'Agriculture (ENSA) and Institut Supérieur de la Formation Agricole et Rural, (ISFAR), University of Cheikh Anta Diop, (UCAD) and University of Ziguinchor, (UZ). There are three professional training centers, Center of Professional Training in Horticulture, (CFPH) at Cambérene, the Center of forestry and water, (CNFTEFCPN) at Ziguinchor and the Center of Livestock in St. Louis, (CNFTEIA). There is one Lycée Technique Agricole in Bignona (LTAB), Casamance. Additionally, USAID/ERA will work with the two research institutions of Institut Sénégalais de Recherches Agricoles (ISRA) and the Institut Technologie Alimentaire (ITA).

USAID/ERA is working with each of these institutions to prepare a coherent program of support, development and collaboration in three strategic domains:

- Strengthening agricultural education and training
- Strengthening applied research and outreach, and
- Project management and policy support

Agricultural Education

USAID/ERA conducted the planned "rapid need assessment" at each institution. Rapid needs identified in the agricultural education component included needs for infrastructural improvements, curriculum and pedagogical training as well as training opportunities for teaching staff and distance learning. The needs in question are being acted upon by USAID/ERA in furnishing its first round of supportive grants.

A second set of activities, linked to the need assessments, has been to begin institutional self-assessment of academic programs, especially at the universities. Some important first impressions are beginning to emerge revealing common and specific characteristics of the curriculum. Curriculum is a foundational element of each institution and must be considered in harmonizing the whole agricultural system of education as well as the desired move toward the License, Master and Doctorate (LMD) system of higher education.

A third set of activities has brought about the planning and introduction of activities leading to Distance Learning within and among the AETs of St. Louis and Thiès. The initial assessments enabled planning, identification and preparation of representatives at each institution to be responsible for facilitating distance learning and beginning experiences with English language instruction. A group of 8 of these representatives are being sent to Virginia Tech for orientation and training.

University of Connecticut (UCONN) has been collecting data using its survey instruments in the private sector. The survey will measure the degree to which agricultural businesses, producers and producer associations need certain types of skills that are not being supplied by the agricultural education system in Senegal. The results of the survey will be instrumental for AET Institutions to revise their curricula according to needs that are evident in the agricultural labor market.

Applied Research and Outreach. In the area of Applied Research and Outreach, important contacts are now moving forward with the leadership at Fonds National de Recherches Agricoles et Agro-Alimentaires (FNRAA). USAID/ERA expects to arrange the award of competitive grants promoting applied research, collaborative activities among the above institutions and other activities that advance the research and outreach functions of AET Institutions to Senegalese agricultural producers.

In addition to this component has been the formulation of Regional Agricultural Technical Committees that are to identify necessary applied research projects for each region. The Governor of Ziguinchor has been provided with a document that would create a governmental decree to legitimate the committee in the region. Important work for this same procedure is underway in St. Louis. With the help of regional authorities USAID/ERA will work with the committees to inform AET institutions in the region about the emerging human resource needs in the sector. The Committees will provide a useful mechanism for feedback and reality testing in the pursuit for more relevant education in the agricultural sector.

Project management and policy support. The "rapid needs assessment" methodology required that each Technical Working Group identify priorities within each of the program's components. As these "rapid needs" are being addressed now through the award of grants to AETs, the institutions have participated in grant management workshops in which 30 representatives have received two full days of training. They understand how the granting system works, the application and procurement processes and the rules and regulations about budgeting and reporting once grants have been made.

Summary. USAID/ERA entered the April to June third quarter of field and operational activities. It finalized and obtained approval for its Performance Monitoring Plan, it finalized the granting process and procedures, it reached an agreement in principle with FNRAA to establish a collaborative relationship to issue and support research and outreach grants, and it trained 30 administrative personnel in the granting process and procedures within each participating institution. It developed a plan to train in the areas of English language acquisition and it developed a plan that will roll out the distance learning or eLearning activity for target institutions. USAID/ERA integrated consortium university experts into its core activities through visits from Tuskegee University, Virginia Tech and Purdue University. The Virginia Tech teams at the Program Management Unit in Dakar, (PMU) and the Management Entity (ME) in Blacksburg, VA have made significant progress in harmonizing administrative systems for smooth delivery of grant resources to client AET Institutions in Senegal.

On June 29, 2011 USAID/ERA was informed by USAID/Senegal that its previously planned budget of $5,428,533 would be decreased to $3,125,000 for Fiscal Year 2011. This reduction of 42% will mean significant re-alignment and consultative planning with partners and the USAID Mission as the project moves forward and the annual work plan for next year is finalized.

In the next quarter and end of first fiscal year of activities USAID/ERA will initiate a range of activities to assure results for program objectives including:

1) Gender assessment draft plan
2) Continued award of "rapid needs assessment" grants to AET Institutions
3) Institutional academic self-assessments completed providing guidance for AET Institutions for additional training
4) UCONN labor study completed and reviewed; planning for a workshop that will review supply of academic and professional training with demand for specific skills within the private and productive sector.
5) Performance and Monitoring Plan (PMP), M&E Specialist in place
6) Distance Learning and English language study abroad trip to Virginia Tech for facilitator training, 14 participants.
7) Study tour to Virginia Tech, 15 participants for exposure to the Land Grant system.
8) Build on the synergy established with other USAID investments at key institutions
   a. University Gaston Berger (HED-sponsored Ohio State University to pursue agricultural technical support; USAID/ERA Virginia Tech to pursue acquisitions in infrastructure, equipment, Distance Learning and ICT support)
   b. University of Thiès, ENSA (PCE and Michigan State University supported Master's program in agricultural value chain management to be assumed by USAID/ERA);
9) Program re-alignment and Annual Plan for 2012

Component 1: Agricultural education and training system strengthened

Targeted results and Planned Activities

General Considerations

The USAID/ERA project is in process of assisting three types of agricultural institutions: 1) University centers where programs are specifically related to agriculture, 2) Agricultural Professional Training Centers and 3) Agricultural Research Centers. This quarter USAID/ERA has learned that when all institutions unite for a shared experience, such as the training offered in Thiès this last quarter, participants and institutions quickly developed a common bond and commitment toward their missions, goals and purposes in advancing agricultural knowledge and information. The instructors and administrators in the institutions showed a high level of interest in improving the quality and relevance of their instructional programs. (See Annex 6.)

Institutions also see the need for English language competency. They recognize that distance learning may be a key channel for that learning. Distance learning is also recognized as an important source of agricultural information and instruction on technical subjects relating to agriculture and production.

Changes in profile and intent in USAID-funded projects, specifically the Economic Growth Project (PCE), will mean that the Master's Program in Agricultural Value Chain Management will be increasingly handled by USAID/ERA through its parent institution ENSA. This iniative will imply changes in budget and activities as the original USAID/ERA project did not anticipate the support of a Master's program. Specifically the inclusion of scholarships and other technical support which were included in the original PCE plan will now be managed by USAID/ERA.

Proposed educational activities are the highest priority within USAID/ERA but are complex compared with activities in other components in the project. Developing new systems for distance learning, setting the stage for enhancements in curriculum and introducing new teaching practices are organizationally sensitive, complex and time consuming. Over the last three months considerable progress has been made by the PMU, the ME in Blacksburg, the consortium universities and USAID/Senegal adjusting to each other in the delivery of services and the alignment of procedures to establish a first generation of grants to achieve intended results.

Planned Activities for FY 2011

Annual plan activities are the following and appear in the Annual Plan:
Objective 1: Curriculum — AET Institutions producing high performing and market oriented graduates

> **Result 1.1**: Revamped curricula and improved academic capacity at target AETs
>
> Year 1 Results:
> a. Institutional Assessments completed and analyzed: The activities for this result will involve engaging all of the target institutions and key officials in the regions.

USAID/ERA anticipates that initial needs will be identified through a "rapid needs" assessment. Steps should also be made to launch the deeper institutional self-assessment.

b. Labor demand study of the agricultural sector completed and analyzed: This activity depends on making the initial steps in organizing a study to determine relative needs for agricultural professionals and skill sets in the Senegalese economy: literature review, the design of the questionnaire and the identification of private and public sector organizations to be interviewed.

c. Review of curriculum: As a part of this result and with the results of (a) and (b) above, AETs through their Technical Working Groups will be in position to review their curricula

Result 1.2: Set up and roll out of distance and distributed learning (DDL) across universities

Year 1 Results:
a. Agenda item accepted and recognized by technical working groups at AET level for year 2 through 5 tasks
b. USAID/ERA to begin discussions about this educational platform within the TWGs
c. Assessment of Distance Learning capability/potential: The program will introduce the idea and begin assessing the potential for distance learning and receptiveness to this technology in several AETs

Objective 2: Infrastructure systems — AET institutions capable of meeting a variety of agricultural training needs

Result 2.1: Improvement of critical academic infrastructure systems at targeted AETs

Year 1 Results:
a. Architectural plans including environmental impact assessments if needed
b. USAID/ERA to begin identifying a contractor who will be able to assess architectural projects and manage them once grant mechanism is in place
c. Bidders on construction projects selected
d. One major infrastructural project in progress by end of year for each agricultural institution
e. Rapid needs assessments will identify a range of small to medium projects for support this year
f. Two medium-sized infrastructural projects in progress
g. Three basic infrastructural projects in progress

Result 2.2: Development of human capital

Year 1 Results:
a. Institutional Assessments identify core personnel needing training in AET: USAID/ERA needs to develop its procedure and plan for recruiting teaching staff from target AET Institutions for continued training and upgrading of academic qualifications
b. Training plan for faculty, staff and administrators: USAID/ERA needs to work with its participating AET Institutions to develop training plans for faculty staff and administrators.
c. Capacity for J1, TraiNet and participant training approval and visa mechanisms in place

Objective 3: Administrative Systems — AET Institutions managed as centers of excellence with a clear vision and strategy for their program development and contribution to national food security

Result 3.1: Create Senegalese ownership of a new model of agricultural pedagogy and service to the agricultural sector

Year 1 Results:
a. Technical Working Groups formed in each of the initial partner AETs
   In the first year all target AET institutions will have Technical Working Groups discussing and meeting on programs and issues relating to their capacity development
b. Dakar High Level Steering Committee kicks off first quarter 2011
   USAID/ERA will have its technical consultative committee appointed and meeting on a quarterly basis
c. Prioritization scheme established for institutional grants
   Technical Working Committees will be ready to plan for and accommodate grants awarded to them over the year. Specific training will need to be designed and in place for grant management training
d. Disbursement of non-competitive grants

Progress Realized

Objective 1: Curriculum — AET Institutions producing high performing and market oriented graduates

Result 1.1: Revamped Curricula and improved Academic capacity at target AETs

Under revamped curricula and improved academic capacity there are the following activities:

"Rapid Needs" assessments. In the first two quarters USAID/ERA initiated a "Rapid Needs" assessment in all institutions to begin its grant activities. This exercise required each institution to develop an initial set of needs and which could be responded to relatively quickly. For professional training institutions, the range of needs included physical plant, educational and administrative needs. The analysis exercise for university centers focused on short term training and pedagogical needs.

During the Third Quarter responsiveness in addressing these needs has gained momentum. Between May 1 to 16 USAID/ERA purchased and installed computer equipment for its first grant on behalf of the Centre National pour la Formation Technique en Elevage et l'Industrie Animale, (CNFTEIA). The computer lab will be used for research, course work and for consulting technical sources of information. These grants of equipment and material are accompanied by a Memorandum of Understanding which details the responsibilities for up-keep and on-going maintenance so that the equipment is used only for its intended purposes and that its useful life is maximized.

During the Third Quarter USAID/ERA made special efforts to include research institutions as equal partners in the program. USAID/ERA staff conducted "Rapid Needs

Assessments" with Institute de Transformation Agro-Alimentaire (ITA) and Institut Scientifique en Recherche Agriculture (ISRA). Both of these institutions will receive grants in the form of material and equipment in the next quarter as will the other Agricultural Education and Training institutions targeted in the program. USAID/ERA expects that the research institutions will be centrally involved in organizing and structuring knowledge for insertion into curricula and programs in the universities and professional training institutions.

As a result of a visit by Dr. Michael Bertelsen from Virginia Tech and its Management Entity (ME), procurement procedures and authorization processes within Virginia Tech and between the Management Entity (ME) and its Project Management Unit (PMU) have been clarified. The issuance of resources for acquisition of local purchases has been enhanced which will enable the "rapid need assessment" grant process to be accelerated. In this regard USAID/ERA submitted its Grants Management Manual during the Third Quarter to USAID/Senegal for approval.

Labor Study. Consortium member University of Connecticut (UCONN) and its team have been collecting data from producer groups in agriculture including agri-businesses during the third quarter. They have sent data collectors to the regions in which target institutions are located to assure correlation of businesses in the catchment areas of professional schools and university centers. USAID/ERA has been coordinating with the UCONN team and meeting regularly. The UCONN team is ready to conduct its analysis of primary data and awaits the collection of remaining data from certain educational institutions and larger agri-businesses. The report on findings from this survey should become available during the fourth quarter.

Review Curricula. Accomplishments made toward revamping curricula and improving academic capacity was realized by continuing dialogue on academic content and delivery in all client AETs. The workshop sponsored by Dr. Ozzie Abaye and Patricia Donovan, April 26 to 30, presented material on geographic information systems and how this tool can be used for assessing agricultural potential and projection of productive capacity. Out of this workshop participants realized what needed to be included in their respective curricula and developed an ad hoc working group to pursue topics like these in their respective agricultural research and training programs. All USAID/ERA target institutions attended this workshop from which all participants dedicated themselves to pursue innovations in agricultural research and training from sources like those brought by the Virginia Tech team in this workshop.

The Tuskegee team, Drs. Ntamulyango (Ntam) Baharanyi, Youssouf Diabate, and Henry Findlay, respectively Principal Investigator, Agribusiness Development Specialist, and Education Specialist from Tuskegee University visited and presented a workshop for the three AETs located in the Casamance. Specifically Dr. Henry Findlay provided a day and one half workshop on key aspects of the curriculum, how to analyze the curriculum and how it is integral to the teaching and learning process. He linked the curriculum to Bloom's Taxonomy of learning objectives which forces teachers and educators to plan and

structure their programs of instruction for specific objectives. This workshop prepares participants for the long term process of aligning the curriculum with the goals and mission of the institution and with the needs presented in the private sector for specific skill sets.

During the third quarter USAID/ERA embarked on the process of taking on the major responsibility for the Master's program in agricultural value chain located at the University of Thiès, Ecole National Supérieur de l'Agriculture (ENSA). Thus far, discussions have focused on the budgetary and operational aspects to assure continuity and sustainability of the program. Additional discussions included the Director of ENSA. USAID/ERA considers this program an essential part of its work in curriculum development and will endeavor to integrate it into the focus of the Technical Working Group at ENSA.

Curriculum Review Workshop. USAID/ERA is preparing for this workshop by collecting information and data on current lesson plans, curriculum plans and details on course designs from its participating institutions. This data will be collected and presented in a format that will permit analysis of recurrent or divergent trends in curriculum coverage. This exercise in conjunction with the UCONN Labor Study will indicate the need for consensus on relevance and identify "focus themes" in agricultural training for the future.

Result 1.2: Set up and roll out of distance and distributed learning (DDL) across universities

Distance learning is becoming a vital part of the USAID/ERA agricultural academic and instructional system. During the Third Quarter USAID/ERA developed a comprehensive DDL/eLearning plan.

-Agenda for Distance Learning established through consultation and advice from Technical Working Groups
-Assessment of distance learning capability and potential completed
-Set up and installation of ERA Innovation and eLearning Lab within PMU
-Pilot interactive distance learning English Language Program between Senegal and Virginia Tech, Blacksburg, VA.

An integral part of the DDL/eLearning plan includes starting the eLearning process in the instruction of the English language.

During the Third Quarter ERA identified a group of 8 participants from all institutions to travel to the US for advanced training between July 22 to Aug 11. These individuals will then become mentors, facilitators and trainers for the broader roll out of the ERA Distance Learning and ESL training programs in Senegal.

- Participants will gain tailored training in ESL and pedagogy at Virginia Tech
- Participants will learn and observe EFL/ESL instructors
- Participants will gain advanced training in eLearning approaches and techniques.

Objective 2: Infrastructure systems — AET institutions capable of meeting a variety of agricultural training needs

Result 2.1: Improvement of critical academic infrastructure systems at targeted AETs

USAID/ERA has undertaken a bidding process in local newspapers and with Virginia Tech approval selected a firm to conduct a physical infrastructure assessment of all institutions. After extensive negotiations and rigorous clearances Virginia Tech, at the end of the Third Quarter is ready to sign an operative contract with a firm to begin assessment activities.

USAID/ERA will work with the firm to assess institutions felt to be in greatest need of physical infrastructure improvements. These are likely to be located in the Thiès and Ziguinchor regions with due consideration for Université de Gaston Berger as well.

Results from this firm will include:
a. Architectural plans including environmental impact assessments if needed.
b. Cost estimates for each project
c. Launch of bids for work among qualified local construction contractors
d. Supervision, monitoring and regular reporting of agreed upon projects until completion

USAID/ERA expects to have several infrastructure projects in place during the Fourth Quarter.

Result 2.2: Development of human capital

a. Institutional Assessments will identify core personnel needing training at AETs in the curriculum and technical areas. The assessments in the development of human capital have been on-going, and the effort is resulting in a plan to conduct a study tour to the US to train and orient AET personnel in the next quarter. ELearning/distance learning, Land Grant comparative outreach strategies and the development of student services and career counseling within AET institutions will be the focus areas of the study tours.
b. Training plan for faculty, staff and administrators has begun with the initial study tour mentioned above. Training plans for faculty and administrators is in process.
c. Capacity for J1, TraiNet and participant training approval and visa mechanisms in place

Objective 3: Administrative Systems — AET Institutions managed as centers of excellence with a clear vision and strategy for their program development and contribution to national food security.

Grant awards by Virginia Tech are beginning as it has finalized its legal, contractual and procurement procedures as they apply to operations in Senegal.

Result 3.1: Create Senegalese ownership of a new model of agricultural pedagogy and service to the agricultural sector

Year 1 Results:

a. Technical Working Groups formed in each of the initial partner AETs

b. Dakar High Level Steering Committee

The Program Management Unit of Virginia Tech and its Consortium conducted its second National Steering Committee on meeting on May 6th. The PMU provided an update on current progress made in the program. It also presented and described the eLearning and Distance Learning program to be implemented at all AETs. The National Steering Committee provided advice and counsel on how to present results at the next meeting. It suggested that attained results be demonstrated against the check-list used at the conclusion of the last meeting. The Minister of Higher Education who attended the meeting, called for USAID/ERA to promote greater collaboration among AETs to work together, to encourage the training of agriculture research scientists so that they stay in the sector and to work toward a greater and more meaningful outreach to rural populations with agricultural information.

c. Prioritization scheme established for institutional grants

The prioritization scheme is defined by the "rapid needs assessment" exercise and is currently being executed to deliver the first level of grants to participating institutions.

d. Disbursement of institutional grants

USAID/ERA has disbursed one grant to CNFTEIA consisting of ten computers, a server, cabling and other equipment for its computer lab. USAID/ERA is currently mobilized to deliver more grants to all institutions. These grants will include a significant proportion in information systems (computers and related hardware) provision as well as specific equipment relevant to universities or training centers.

Constraints, opportunities and priorities for the next Quarter

Constraints:
- Legal, contractual, procurement and other administrative procedures have been fully elaborated and defined by Virginia Tech. The processing of 'rapid need assessment" grants is in full swing and will be concluded meeting budget limits as defined in FY10.
- Current constraints include delays in processing the paper work and full completion of documents that fulfill necessary USAID and Virginia Tech contractual and procurement regulations.
- Budget reduction notice received by USAID/ERA on June 30 will add complexity to project implementation.

Opportunities:
- Budget constraints will provide an opportunity to revisit and re-prioritize project interventions that will increase efficiencies while protecting key project goals.

- Visitations by colleagues to the United States from partner institutions in Senegal will greatly enhance the understanding of the project and build commitment to the changes needed at the institutional level. The visits will build capacity within each institution to facilitate learning through the distance learning platform for key personnel within each institution.
- The approval of the infrastructure assessment consulting firm will increase the likelihood that a few projects may be funded and undertaken in a relatively short time for some institutions.
- The establishment of a coherent distance learning and English language capability within the program will go a long way to reinforce linguistic and technical inputs to the instructional programs of participating institutions.

Activities for next Quarter:

- Award grants to institutions in response to "rapid needs assessments" undertaken during January and February.
- Begin the process of assessing the physical infrastructural needs and appropriate projects of rehabilitation at deserving AET Institutions.
- Continue with the in-depth institutional self-assessment process and labor study so that institutions will be able to develop and justify their human resource development plans.
- Send two groups of participants to the US (VT at Blacksburg, VA) for focused training in facilitated learning and pedagogy using distance learning approaches for learning English in the distance learning format, exposure to the Land Grant extension model, develop approaches to career guidance for AET student populations.
- Finish initial assessment of curriculum review among institutions providing instruction to students in the agricultural sector.
- Completion of UCONN Labor Study
- Installation of computer equipment in the majority of AETs and defining a training plan to accompany the maintenance of the new equipment (software and hardware).
- Planning and execution of combined workshop to discuss results of Labor Study and academic assessments from Universities, Professional Training Centers and Research Institutions.

Component 2: Strengthening Applied Research and Outreach

Targeted results and Planned Activities

General Considerations

Strengthening applied research and outreach is critical in the overall approach to the USAID/ERA program. The component is to work on concluding its approach to forming Regional Advisory Committees and to advance to the next phase of collaborative and competitive research grants to be awarded in collaboration with FNRAA.

As stated in the Annual Work Plan
Objective 2.1: AET institutions promoting innovative research solutions to public and private clients

> **Result 2.1.1:** Farmer and agribusiness driven prioritization of applied research needs
>
> Year 1 Results:
> a. Regional Advisory Committees formed and call for region-wide meeting to define farmer and agribusiness needs for applied agricultural research. In the first year RACs shall be formed in all regions. USAID/ERA will work closely with Regional Governors, Agency for Regional Development (ARD) and Ministry of Agriculture, Regional Department for Rural Development (DRDR) to identify memberships in private sector and among producer groups.
> b. Define and distribute reports of farmers and agribusiness needs for applied research action
>
> **Result 2.1.2**: Collaborative applied research grants
>
> Year 1 Results:
> a. Develop the terms of reference for applied research grants
> b. Develop the award granting mechanisms and criteria for applied research grants
>
> **Result 2.1.3**: Research management strengthened at AET institutions
>
> Year 1 Results:
> a. AET assessments designed and contracted using local consultants
> b. AETs have identified management of research grants a priority. They look forward for support in this important area.
> c. Results analyzed for management competencies
> d. Results shared with Institutions, Technical Working Groups and other agencies conducting extension services

Objective 2.2: AET institutions providing outreach services and technical support to clients in farming communities and the private sector.

> **Result 2.2.1**: Farmer and agribusiness driven prioritization of outreach needs
>
> Year 1 Results:

a. Regional Advisory Committees formed
b. Regional Advisory Committees call for region wide meetings to define outreach needs in Agriculture sector
c. Prioritization scheme developed

Result 2.2.2: Collaborative outreach grants

Year 1 Results:
a. Terms of reference for collaborative outreach grants completed
b. Award granting mechanisms and criteria for collaborative outreach grants developed
c. Prioritization scheme developed

Progress Realized

Objective 2.1: AET institutions promoting innovative research solutions to public and private clients

Result 2.1.1: Farmer and agribusiness driven prioritization of applied research needs

Year 1 Results:
a. Regional Advisory Committees are being discussed and planned through Regional Governors, Agencies for Rural Development and DRDRs. One Regional Advisory Committee has been formed and its members identified by Regional authorities in Ziguinchor. The Regional Governor of Ziguinchor is almost ready to sign a "decree" for its establishment. The Regional authorities feel that an overall meeting calling all actors in the agricultural field together is needed to introduce the project to the wider community. After this initial meeting and further input from the agricultural community, the Governor will be ready to sign the decree.
b. USAID/ERA is working with the other Regional authorities to develop membership candidates for the Committees with an accent on recruitment from private and commercial sectors
c. Reports of farmers' and agribusiness needs for applied research action have not been accomplished because the Regional Advisory Committees in the Regions are still being formed.

Result 2.1.2: Collaborative applied research grants

Year 1 Results:
a. During the Third Quarter terms of reference for applied research grants have not been developed
b. USAID/ERA has agreed to work with FNRAA and is currently in negotiations to develop collaborative grant processes and procedures.
c. Granting mechanisms and criteria for applied research grants have not yet been developed.

Result 2.1.3: Research management strengthened at AET institutions

Year 1 Results:
a. AET assessments designed but not yet contracted to local consultants
b. Results not yet analyzed for management competencies
c. Results not yet shared with Institutions, Technical Working Groups and other agencies conducting extension services

Objective 2.2: AET institutions providing outreach services and technical support to clients in farming communities and the private sector.

Result 2.2.2: Collaborative outreach grants

Year 1 Results:
a. Terms of reference for collaborative outreach grants not yet completed
b. Award granting mechanisms and criteria for collaborative outreach grants under negotiation
c. Prioritization scheme not yet developed

Constraints, opportunities and priorities for the next Quarter

Constraints:
- Delays in establishing Regional Advisory Groups
- Delays in FNRAA negotiations
- Delays in contracting with consultants to conduct institutional self-assessments

Opportunities:
- Governors of Regions open to building the Regional Advisory Committees
- Clear understanding among players in agricultural research communities and among those in AETs that research be closely related to problems of production in the field
- FNRAA is ready to begin work with USAID/ERA to develop terms of reference for beginning research projects and related activities

Priorities for the next Quarter:
- Fourth Quarter to mobilize Regional Advisory Committees and begin meetings
- Definition of terms of reference for competitive applied research grants plus grants to stimulate collaboration among AETs
- Award of grants to successful grant applicants willing to undertake collaborative applied research on priority FTF themes
- Award of grants to AETs willing to collaborate on research or other capacity building activities
- Capacity-building grants to improve planning, execution for and management of research grants

Component 3: Project Management and Policy Support

Targeted results and Planned Activities

General Considerations

Data base development for agricultural human resource reference and networking is still in an early stage of development. Many AETs know they want to deepen skills and obtain information technology. They know that this resource will be used to increase effectiveness and advance career possibilities for their students. The USAID/ERA project is beginning to address the administrative issues of grant management and planning within its AET institutions.

As written in the Annual Work Plan
Objective 3.1: Database on agricultural human resources in use

> **Result 3.1.1**: Database rationale and design of human resources in agricultural sector
>
> Technical Working Group adopts HR Agriculture Database as a need in the sector
> Year 2-5 year activity
>
> **Result 3.1.2**: Database of human resources in agricultural sector installed on Internet
> Year 2-5 year activity
>
> **Result 3.1.3**: Report demand for Human Resource database in agriculture sector
> Demand for Ag HR Database defined in Years 2-5

Objective 3.2: Management and administration systems of targeted AET and training centers reformed

> **Result 3.2.1**: AET institution training design based on institutional assessment and management capacity analysis
>
> Year 1 Results:
> a. AET institutional assessment completed and analyzed
> b. Technical Working Group prioritizes capacity areas needing attention
>
> **Result 3.2.2**: AET institution yearly implementation plan presented to and discussed by Regional Advisory Committee and home institution
>
> Year 1 Results:
> a. AET institutions define their annual plans by the date mandated by Government of Senegal
> b. AET institutions provided training on institutional planning
>
> **Result 3.2.3**: Grant completion activity reports specifying results
>
> Year 1 Results:
> a. Each AET provided with training on Grant Management

Result 3.2.4: End of program institutional assessment and management capacity analysis

Year 1 Results:
a. End of year program institutional assessment and management capacity analysis
b. AETs adopt new standards for performing functions

Progress Realized

Objective 3.1: Database on agricultural human resources in use

Result 3.1.1: Database rationale and design of human resources in agricultural sector

Year 1 Results:
Technical Working Group adopts HR Agriculture Database as a need in the sector
Not yet accomplishes as this is a Year 2-5 year activity

Result 3.1.2: Database of human resources in agricultural sector installed on Internet
Year 2-5 year activity: no progress to report

Result 3.1.3: Report demand for Human Resource database in agriculture sector
Demand for Ag HR Database defined in Years 2-5: no progress to report

Objective 3.2: Management and administration systems of targeted AET and training centers reformed

Result 3.2.1: AET institution training design based on institutional assessment and management capacity analysis

Year 1 Results:
a. AET institutional assessment not yet completed or analyzed
b. Technical Working Groups have not yet prioritized capacity areas needing attention

Result 3.2.2: AET institution yearly implementation plan presented to and discussed by Regional Advisory Committee and home institution

Year 1 Results:
a. AET institutions have not yet defined their annual plans by the date mandated by Government of Senegal
b. AET institutions not yet provided training on institutional planning

Result 3.2.3: Grant completion activity reports specifying results

Year 1 Results:

a. Each AET has received Grant Management training by USAID/ERA which included some 30 administrative officials. This training set the stage for consideration of deepening and coming into greater compliance with generally recognized standards for accounting, physical asset inventory, assuring budget recurring expenses like fuel for generators and maintenance for computers and other equipment.

Result 3.2.4: End of program institutional assessment and management capacity analysis

Year 1 Results:
a. End of year program institutional assessment and management capacity analysis not yet completed
b. AETs not yet adopted new standards for performing functions

Constraints, opportunities and priorities for the next Quarter

Constraints:
- The deliberations of the TWG have progressed only marginally to the identification of needs as defined in Component Three. TWG needs have been defined in the context of "Rapid Need Analysis" exercise.

Opportunities:
- TWGs have recognized and identified needs in all component areas including the need to increase capacity in governance, administration, management and student counseling
- TWGs and their institutions are looking forward to receive training in basic managerial functions and computer information processing applications

Priorities for the Next Quarter:
- Undertake more elaborated institutional self-assessment among all AETs
- Award capacity building grants in the project management and policy areas depending on priorities articulated by the TWGs

Cross-Cutting and Transversal Issues

Targeted results and Planned Activities

Gender Issues

The first year USAID/ERA is scheduled to have a gender assessment completed and a strategy in progress.

Grants Management

The first year should see the establishment of the grant system with manual and forms approved by USAID. The mechanism once established will permit the flow of resources from the program to its intended recipients in the field.

Participant Training

The first year will see the establishment of participant training program in which participants from target AETs will benefit in technical areas relevant to the goals and objectives of the ERA program.   Prospective students (teachers and professors from target AETs) will be recruited and sent for exposure, reinforcement and supplementary technical training.

Monitoring and Evaluation

The PMP plan should be approved by USAID/ERA which will hire a full time Monitoring and Evaluation specialist.   Approved indicator data and their base lines will be collected on a regular basis for access and analysis. Data will be stored in a safe place.

Distance Learning and Innovation Center

The Distance Learning and Innovation Center will be established during the first year of the program. Plans will be written for its function and outreach to the participating AETs in the USAID/ERA program. The Innovation Center will host at least one or more training sessions and trial use of distance learning programs has been in operation during the quarter.

Public Private Partnerships

By the end of year one, USAID/ERA should have a preliminary plan on how to develop and initiate public/private partnerships.

Progress Realized

Gender Issues:

USAID/ERA is in process of developing its gender strategy with assistance from VT expert Maria Elisa and with consultation of USAID/Senegal Gender Strategy written by Deborah Rubin. AET Institutions as well as the PMU will be committed to pursuing the Strategy over the life of the project. Results of the gender strategy will be measured through USAID/ERA PMP indicators.

Grants Management:
The Grants Manual and its forms and procedures have been in development by both the Virginia Tech PMU and the Management Entity (ME) in Blacksburg, VA. This manual was submitted to USAID/Senegal during the last quarter. All institutions represented by 30 participants have received training in the basic procedures for working with USAID/ERA grants.

Participant Training
The first year will see the establishment of participant training program of which 8 participants are in process now for exposure training in the US with another 35 planned for the fourth quarter. Prospective students (teachers and professors from target AETs) will be recruited and sent for exposure, reinforcement and supplementary technical training. Plans for participant training will be presented in the next Annual Work Plan to USAID.

Monitoring and Evaluation
USAID/ERA developed and successfully submitted its Performance Monitoring Plan to USAID/Senegal. The program expects to decide on a permanent position for this function in the Fourth Quarter. USAID/ERA is committed to ensure the competent and timely collection, storage, display and analysis of performance data for reporting and validation of its activities.

Distance Learning and Innovation Center
USAID/ERA now has a plan and strategy in place to advance distance learning within the program. The program will comprise several components: 1) instruction of English language, 2) instruction of technically based subjects which will complement emerging restructuring of existing curricula in AET Institutions, 3) pedagogical content, 4) access to library resources, 4) intra-institutional communication modalities such as Google Aps, etc. USAID/ERA has developed a center of innovation for distance learning.

Public Private Partnerships
At the end of the fourth Quarter, USAID/ERA expects to develop a plan to identify appropriate businesses which will serve as partners with targeted AET Institutions. USAID/ERA included five additional indicators in its Performance Monitoring Plan indicating involvement of Public and Private Partnerships.

Annexes

1. Trips made by Experts and Consortium Members

Structure and Person	Dates of visit	Purpose	Report filed
Virginia Tech Professor Ozzie Abaye and Patricia Donovan, Researcher in Geographic Information Systems	26 to 30 April, 2011	1) Deliver workshop on Grassland Conservation and Food Security, Thiès	Reports filed electronically and in hard copy with COP and PMU
Michael Bertelsen, Ph.D. Associate Director for OIRED, Virginia Tech	6-15 June, 2011	1) Clarify grant processes 2) Discuss role of FNRAA in USAID/ERA 3) Discuss plans for Public Private Partnerships 4) Production of PMP plan 5) Discuss plans for next Annual Work Plan 6) Date of Annual Work Plan submission Sept 1. 7) Date of Annual Report Oct 1. 8) Value Chain Master Program at Thiès will not require a MOD but rather a change in Annual Work Plan	Report filed electronically and in hard copy with COP and PMU
Drs. Ntamulyango (Ntam) Baharanyi, Youssouf Diabate, and Henry Findlay, respectively Principal Investigator, Agribusiness Development	8 to 24 June, 2011	1) Workshop delivered on need assessment with intention of developing a plan for micro-enterprise development material for course offerings in Ziguinchor institutions 2) Workshop delivered on understanding curriculum and its relationship to teaching and learning	Report filed electronically and in hard copy with COP and PMU

Specialist, and Education Specialist from Tuskegee University			
Purdue University Prof Jane Frankenberger	19 to 29 June, 2011	1) Participate in the ongoing academic assessments conducted at UGB and at CNFIEIA.	Trip report not yet filed

2. Structured meetings between PMU and Agricultural Education and Training Institutions and their counterparts

Zone d'intervention	Région	Institutions	Activités	Dates
SUD	Ziguinchor	Université Ziguinchor	Présentation du projet aux autorités universitaires	Décembre 2010
			Formation du TWG	Décembre 2010
			Rapid assessment	Mars 2011
			Participation à l'atelier de Thiès	Avril 2011
			Participation à la réunion du comité de pilotage	Mai 2011
			Formation sur les procédures administratives et financières	Juin 2011
			Atelier sur la micro-entreprise, entreprenariat rural et la révision des curricula	Juin 2011
			Mise en place du Comité Technique Régional	Juin 2011

Zone d'intervention	Région	Institutions	Activités	Dates
		CNFTEFCPN	Présentation du projet aux autorités du Centre	Décembre 2010
			Formation du TWG	Décembre 2010
			Rapid assessment	Janvier 2011
			Participation à l'atelier de Thiès	Avril 2011
			Formation sur les procédures administratives et financières	Juin 2011
			Atelier sur la micro-entreprise, entreprenariat rural et la révision des curricula	Juin 2011
			Mise en place du Comité Technique Régional	Juin 2011
		LTAEB	Présentation du projet aux autorités du Lycée	Décembre 2010
			Formation du TWG	Décembre 2010

Zone d'intervention	Région	Institutions	Activités	Dates
			Rapid assessment	Janvier 2011
			Participation à l'atelier de Thiès	Avril 2011
			Formation sur les procédures administratives et financières	Juin 2011
			Atelier sur la micro-entreprise, entreprenariat rural et la révision des curricula	Juin 2011
			Mise en place du Comité Technique Régional	Juin 2011
CENTRE	Dakar	UCAD	Présentation du projet aux autorités universitaires	Décembre 2010
			Formation du TWG	Janvier 2011
			Rapid assessment	Février 2011
			Participation à l'atelier de Thiès	Avril 2011
			Participation à la réunion du Comité de Pilotage	Mai 2011

Zone d'intervention	Région	Institutions	Activités	Dates
			Formation sur les procédures administratives et financières	Juin 2011
			Réunion de cadrage	Juin 2011
		CFPH	Présentation du projet aux autorités du Centre	Décembre 2010
			Formation du TWG	Janvier 2011
			Rapid assessment	Janvier 2011
			Participation à l'atelier de Thiès	Avril 2011
			Formation sur les procédures administratives et financières	Juin 2011
		ISRA	Présentation du projet aux autorités du Centre	Décembre 2010
			Formation du TWG	Janvier 2011
			Rapid assessment	Avril 2011

Zone d'intervention	Région	Institutions	Activités	Dates
			Participation à l'atelier de Thiès	Avril 2011
			Participation à la réunion du Comité de Pilotage	Mai 2011
			Formation sur les procédures administratives et financières	Juin 2011
		ITA	Présentation du projet aux autorités du Centre	Décembre 2010
			Formation du TWG	Janvier 2011
			Rapid assessment	Avril 2011
			Participation à l'atelier de Thiès	Avril 2011
			Formation sur les procédures administratives et financières	Juin 2011
	THIES	U Thiès	Présentation du projet aux autorités universitaires	Novembre 2010
			Formation du TWG	Janvier 2011

Zone d'intervention	Région	Institutions	Activités	Dates
			Rapid assessment	Mai 2011
			Participation à l'atelier de Thiès	Avril 2011
			Participation à la réunion du Comité de Pilotage	Mai 2011
			Formation sur les procédures administratives et financières	Juin 2011
		ENSA	Présentation du projet aux autorités du Centre	Novembre 2010
			Formation du TWG	Janvier 2011
			Rapid assessment	Janvier 2011
			Participation à l'atelier de Thiès	Avril 2011
			Formation sur les procédures administratives et financières	Mai 2011
		ISFAR	Présentation du projet aux autorités du Centre	Novembre 2010

Zone d'intervention	Région	Institutions	Activités	Dates
			Formation du TWG	Janvier 2011
			Rapid assessment	Janvier 2011
			Participation à l'atelier de Thiès	Avril 2011
			Formation sur les procédures administratives et financières	Mai 2011
Nord	Saint Louis	UGB	Présentation du projet aux autorités universitaires	Novembre 2010
			Formation du TWG	Novembre 2011
			Rapid assessment	Mars 2011
			Formation sur les procédures administratives et financières	Juin 2011
		CNFTEIA	Présentation du projet aux autorités du Centre	Novembre 2010

Zone d'intervention	Région	Institutions	Activités	Dates
			Formation du TWG	Novembre 2011
			Rapid assessment	Février 2011
			Participation à l'atelier de Thiès	Avril 2011
			Equipement de la salle Informatique	Mai 2011
			Formation sur les procédures administratives et financières	Juin 2011

3. Overall USAID/ERA – eLearning/Distance Education Training and Implementation Plan

Needs for a focus on eLearning and Distance Education

The USAID/ERA project aims to increase human capacity in Senegal for the purpose of improving agriculture output and economic development through agriculture. This consideration is also in line with the priorities of the government of Senegal which puts eLearning as a major tool for the purpose of broadening educational reach and access.

The eLearning and Distance Education focus of the USAID/ERA project stems from 2 main sources: 1) Local Needs Assessment, and 2) Broad objectives of the project.

1) Local Needs Assessment

The Rapid Assessments conducted at each of the AET partner institutions of the have revealed a strong desire to leverage the capabilities of eLearning to broaden educational access and strengthen learning outcomes.

2) Broad objectives of project

The ERA project plans to strengthen eLearning and Distance Education capabilities at each of its AET partner institution. This will assist in the orientation to broaden educational access (formal and formal) and strengthen the overall knowledge base of the agriculture sector of the country.

Implementation Approach

USAID/ERA will implement its eLearning and Distance Education plan in 4 phases. These are: 1) Assessment and Program set-up 2) Pilot eLearning Program, 3) Equipping of AETs and Full Roll-out 4) Continuous Training and Follow-up

1) Needs Assessment and Program set-up

During the Needs Assessment and Program set-up phase of the program, the ERA eLearning team will utilize a diagnostic questionnaire to understanding of the state of eLearning and Distance Education at each of the partner AET site. The team will identify personnel at each partner site with responsibility for eLearning and Distance Education. As part of the needs assessment effort, the ERA team aims to set-up a groupware system to facilitate communications amongst all of the players and stakeholders. It is envisioned that the groupware system will have Intranet capability and thus allow voice and multi-media communications. The ERA team will also set-up its Learning and Innovation lab during this phase. This will allow the PMU to have asynchronous as well as synchronous means of connectivity for the purpose of learning and instruction with all of the AET partners.

Results and Deliverables:

- ELearning Questionnaire
- Installation of Groupware System – Google Apps for Education
- Assessment of eLearning and Distance Education plan
- Set-up of ERA Innovation and Learning Lab

Dates: February to June 2011

2) Pilot ELearning

ERA team intends to select a small number of users amongst the partners to participate in a pilot effort. This effort will involve focused training, assistance with equipment, and evaluation of the eLearning implementation plan.

Results and Deliverables:

- Workshop on eLearning and Pedagogy
- Rolling out of Groupware System – Google Apps for Education
- Set-up of ERA Moodle Distance Learning platform
- ERA ESL Distance Learning

Dates: June to September 2011

3) Equipping of AETs for eLearning and Distance Education

During this phase, the ERA team will focus on assisting its partner in procuring and installing the necessary equipment to receive eLearning programs and to deliver distance education. The investment for this phase – as is the case of all ERA funding – will go through the prioritization process of the program. Thus, each of the AET partners could end up with varying levels of eLearning and Distance Learning capabilities. Nonetheless, the ERA will seek to ensure that a base capability is available at each site for the purpose of achieving program goals and objectives.

Results and Deliverables:

- eLearning and Distance Learning capability at each partner site
- Focused Training on eLearning Pedagogy
- Evaluations and implementation of appropriate adjustment activities

Dates: June to November 2011

4) Continuous Training and Follow-up

The Continuous Training and Follow-up of the ERA eLearning and Distance Education effort is to ensure long term skills development and sustainability. The team will assist its partners

through the implementation periodic short-term training and workshop sessions. As appropriate, ERA will be poised to send selected partners for advanced training in pedagogy, IT and network. The individuals who participate in this training would become mentors and trainers for their peers and colleagues in Senegal.

Results and Deliverables:

- Technical and operational support of the AET sites
- Advanced training in eLearning pedagogy
- Evaluations and implementation of appropriate adjustment activities

Target: December 2011 to end of project

4. Chronogramme E-learning and ESL/EFL

Timetable E-learning

Table below summarizes e-learning activities and plan for the USAID/ERA project

ACTIVITIES	PERIOD	ACTORS	COMMENTS / RESULTS
Set-up of the Google apps interface	February	ERA team, VT technical services	Activation of the Google Apps interface for the ERA project Presentation of the interface to the PMU Pilot selection of partners
Creation of Google Apps and Google groups accounts	March	ERA team, UGB, CNFTEIA, ENSA/UT	Activation of account on Google apps Groups (erapmu@era.oired.vt.edu); twg_ugb@era.oired.vt.edu; twg_cnfteia@era.oired.vt.edu; twg_ensa@era.oired.VT.edu
Design of a questionnaire dedicated to E-learning	March	ERA team	Diagnosis on computer bases and introduction to E-learning
Provision of the AETs pilot questionnaire	March - April	ERA team	Dissemination of the questionnaire to the AETs pilot
Processing of responses	April - may	ERA team	Analysis of the e-learning diagnosis
Training for the use of the Google apps interface	May	ERA team	Workshop
Pedagogy and eLearning Workshop	June	ERA team, All partners	Participants

Timetable for ESL/EFL

Table below summarizes ESL/EFL activities and plan for the USAID/ERA project

ACTIVITIES	PERIOD	ACTORS	RESULTS
Determine local ESL/EFL Need and Implementation approach	March – April	ERA team, VT-LCI	Overall ESL/EFL Plan
Set-up and equip ESL lab	May	ERA team UGB, CNFTEIA, ENSA/UT,	Fully Functioning ESL lab at the PMU
Pilot test ESL/EFL	May – July	ERA team ,	Potential Sites and participants Training program
Assess training approach and preliminary results	Early June	ERA team, VT-LCI	Early evaluation of pilot program
Revise program	Late June	ERA team	Enhanced training
Expand training	July	ERA team, all partners	Program activities

5. Selected Photos from USAID/ERA Activities

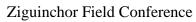Grassland Management Workshop in Thies

Thies Workshop Team

Thies Conference Presentation Team

Grassland Management Continued

Ziguinchor Field Conference

ERA Exhibit at USAID 50th Anniversary Expo

5. Selected Photos from USAID/ERA Activities (continued)

D. Rowley Presenting at Admin Training

P. Guilbaud Presenting at Admin Training

CNEFTIA Computer Lab Purchased with
USAID-ERA Grant (St. Louis)

Zuiginchor Training Workshop

ERA Staff meet with Chief of USAID-Senegal
Kevin Mullally at the USAID 50 Year Expo

ERA Staff meet with Ambassador Marcia
Bernicat at the USAID 50 Year Expo

GROUPE DE REFLEXION SUR L'AGRICULTURE AU SENEGAL (GRAAS)

1. CONTEXTE ET JUSTIFICATION

Ces dernières années, l'agriculture sénégalaise s'est structurée autour d'une vision *in situ* qui a inspiré la mise en place de plusieurs programmes dont le Retour Vers l'Agriculture (REVA), la Stratégie de Croissance Accélérée (SCA) et la Grande Offensive Agricole pour la Nourriture et l'Abondance (GOANA).

Des initiatives diverses ont également été développées pour trouver des solutions aux problèmes complexes de notre agriculture qui fait face actuellement à de nombreuses contraintes. Les Groupes Thématiques programmées (GTP) du Ministère de l'Enseignement Supérieur, des Universités et des Centres Universitaires Régionaux (MESUCURS), ont été initiés dans ce cadre. La démarche consiste à favoriser la rencontre d'experts de différentes institutions de formation et de recherche, de conseil et de vulgarisation, pour échanger sur des thématiques ciblées et proposer des programmes de recherche à la carte.

Aujourd'hui avec la mise en place du programme du gouvernement américain « Feed the Future » le contexte est devenu plus favorable pour réaliser la sécurité alimentaire et lutter efficacement contre la pauvreté au Sénégal avec notamment l'accompagnement dynamique du programme USAID/ERA.

Pour atteindre cet objectif, il est nécessaire de fédérer les ressources et de travailler en synergie. La démarche devra également être structurée en amont, autour d'une réflexion prospective et stratégique, par la mise en place d'un Groupe de Réflexion sur l'Agriculture au Sénégal (GRAAS), qui implique l'ensemble des acteurs concernées. Ce groupe constituera un cadre d'échanges et de réflexion sur les grandes questions de l'agriculture au Sénégal. Pluridisciplinaire et multi-institutionnel, il sera composé :

- ✓ des différentes institutions publiques d'enseignement et de formation dans le domaine des sciences agricoles (universités, écoles, instituts et centres de formations etc.) ;
- ✓ des instituts de recherches ;
- ✓ des structures de développement (Services étatiques, projets, ONG etc.) ;
- ✓ des producteurs et organisations de producteurs.

2. OBJECTIF GLOBAL

✓ Contribuer au développement de l'agriculture et à l'amélioration de la sécurité alimentaire au Sénégal.

2.1. OBJECTIFS SPECIFIQUES

✓ Développer une synergie entre structures d'enseignement, de recherche, de formation, de vulgarisation et de conseil dans l'identification des contraintes et dans la recherche des solutions aux problèmes de l'agriculture sénégalaise ;

✓ Développer la complémentarité et la transdisciplinarité à travers la mise en réseau des compétences et des infrastructures ;

✓ Améliorer les curricula dans le domaine de la formation en agriculture ;

✓ Mettre en place de passerelles entre les écoles de formation et les établissements d'enseignement supérieur en vue de lever les cloisonnements et de jeter les bases d'un futur Pôle agricole ;

✓ Mettre en place une structure de veille, d'alerte et d'information ;

✓ Mettre en place une structure de conseil et d'appui à la décision en direction des producteurs, du secteur privé et des décideurs.

3. MODALITES DE MISE EN ŒUVRE

3.1. Identification des grands domaines et thématiques de recherche

⇨ Productions et Protection des végétaux (Phytopathologie, Agroécologie, Malherbologie, Entomologie, Nématolologie, Technologies post-récoltes, Semences, sélection et amélioration des plantes, Horticulture, Agroforesterie et Foresterie etc.) ;

⇨ Productions animales (Nutrition et santé animales, Sélection animale, Reproduction et insémination artificielle, Apiculture, Agropastoralisme, Cultures fourragères et valorisation du fourrage, Assurance bétail, Gestion de la faune sauvage, etc.) ;

⇨ Eau et sol en agriculture (Gestion des ressources en eau, Maitrise de l'eau, Développement et modernisation de l'irrigation, Drainage des terres et lutte contre la dégradation des sols estuariens, Valorisation agricole des ressources en eau, Impact des changements climatiques sur les ressources en eau, les sols et conséquences sur l'agriculture, Sols et fertilité, Défense et restauration des sols, Conservation des eaux du sol).

⇨ Pêches et aquaculture (Pisciculture, Ostréiculture, Gestion des aires marines protégées, etc.) ;

⇨ Nutrition, alimentation humaines, et technologies agroalimentaires ;

⇨ Politiques, économie et sociologie rurales, Foncier et agriculture

- ⇨ Climat et agriculture (prévision et modélisation) ;
- ⇨ Cartographie des sols et aménagement de l'espace ;
- ⇨ Machinisme agricole ;
- ⇨ Environnement ;

3.2. Identification des institutions partenaires et des personnes ressources

- ⇨ Etablissements d'enseignement et de formation ;
- ⇨ Structures de recherche ;
- ⇨ Structures de vulgarisation et de conseil ;
- ⇨ Producteurs et organisations de producteurs, secteurs privés et décideurs.