IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Office of University Counsel
3550 Beardshear Hall
Ames, Iowa 50011-2045
515 294-5352
FAX 515 294-1799

September 3, 2014

VIA E-MAIL: eh@pricklyresearch.com
Mr. Edward Hammond
3103 Powell Cir
Austin TX 78704

Re: Public Records Request – August 14, 2014

Dear Mr. Hammond:

I am an attorney for Iowa State University, and one of my responsibilities is to assist with public records requests. Your August 14, 2014 e-mail to Dr. Manjit Misra has been forwarded to my attention. In your e-mail, you request the following records:

1. All contracts and subcontracts with USAID in relation to production, sale, or marketing, or regulation of seeds in Africa in force at any time between 1 January 2012 and the present.

2. The final report of each contract or subcontract responsive to item 1 or, where a final report is not available, the most recent interim report.

3. All contracts and subcontracts with AGRA and entities funded by AGRA in relation to production, sale, or marketing, or regulation of seeds in Africa in force at any time between 1 January 2012 and the present.

4. The final report of each contract or subcontract responsive to item 3 or, where a final report is not available, the most recent interim report.

5. All contracts and subcontracts with BMGF in relation to production, sale, or marketing, or regulation of seeds in Africa in force at any time between 1 January 2012 and the present.

6. The final report of each contract or subcontract responsive to item 5 or, where a final report is not available, the most recent interim report.

Iowa State University has received no funding directly from USAID during the stated period and consequently has no records responsive to your first two requests.

With respect to your third request, Iowa State University has received one award from AGRA during the stated period. A copy of the award letter is being produced. The award relates to the

establishment of a Seed Management Institute at the University of Nairobi. This may be outside the scope of your request, but has nevertheless been produced in case one might determine it relates to the production of seeds in Africa. Iowa State University has no records responsive to your fourth request.

With respect to your fifth request, Iowa State University has received two awards from the Bill & Melinda Gates Foundation that are responsive to your request. The award letters and proposals for these two awards are enclosed. The final report for one of the research projects is being produced in response to your sixth request. No reports have been generated for the other award.

Iowa State University assesses charges for responding to public records requests. A summary of the charges can be found here: http://www.ur.iastate.edu/records/. It took two hours to find and review the records. Iowa State University charges $30 per hour spent on such activities in excess of one hour, resulting in a charge of $30 for labor. The records produced were already in electronic form, so there is no charge for copying or scanning. Accordingly, you owe Iowa State University $30 for this response to your public records request. You may send to my attention a check made payable to Iowa State University in that amount. If you need an invoice in order to process this payment, please let me know.

Very truly yours,

Paula K. DeAngelo
Associate Counsel

Enc.

cc: Dr. Manjit Misra

105920/10-0818

Alliance for a Green Revolution in Africa

March 25, 2010

Dr. Manjit K. Misra
Director
Seed Science Center
102A Seed Science Building
Ames, Iowa 50011-3228

Re: Grant Reference No. 2009 PASS 018 – Seed Management Institute

Dear Dr. Manjit:

Alliance for a Green Revolution in Africa ("AGRA") is pleased to award University of Nairobi ("UON") and its collaborative partners namely Iowa State University's Seed Science Center, the International Maize and Wheat Improvement Center (CIMMYT) and two consultants: Ms. Aline O'Connor Funk and Mr. Dilip Gokhale, a project support grant in the amount of $4,495,432 for the period from February 1, 2010 to January 31, 2013 (36 months) towards the Establishment of a Seed Management Institute (SEMIs) which will be housed at the University of Nairobi's College of Agriculture and Veterinary Sciences. The purpose of this grant is to ensure good seed science and business management knowledge applied in many parts of the developed world is translated to seed enterprises in eastern and southern Africa in a way that will directly benefit smallholder farmers through capacity building of seed company personnel to better serve the needs of farmers. This letter summarizes the terms and conditions under which AGRA has awarded this grant.

Payment of Grant Funds. The University of Nairobi has requested that AGRA disburses grant funds directly to the collaborating institutions according to the following schedule:

Institution	Payment Amount
University of Nairobi	$3,634,300
Iowa State University	$649,716
CIMMYT	$29,616
Aline and Dilip	$181,800

Grant funds will be released to Iowa State University on an annual basis as per the proposal budget and according to the following payment schedule:

Payment Date	Payment Amount	Contingent Upon
Upon receipt of bank details	$274,070	
February 1, 2011	$222,750	Interim Financial Report and Interim Narrative Report
February 1, 2012	$152,896	Interim Financial Report and

Eden Square
Block 1, 5th Floor
P O Box 66773
Westlands, 00800
Nairobi, Kenya
Tel: + 254 20 3750 627 / 3675 000
Fax: + 254 20 3750 653 / 3675 269
www.agra-alliance.org

		Interim Narrative Report

Reports. For effective management and coordination of this grant, Professor Mwang'ombe of University of Nairobi remains the prime contact person and takes responsibility for reporting to AGRA. In this regard, we request that you submit all reports to Professor Mwang'ombe for consolidation and onward submission to AGRA. The reporting schedule for this grant is as follows:

Due Shortly After	Period Covered	Description of Report
July 31, 2010	February 1, 2010 to July 31, 2010	Interim Financial Report and Interim Narrative Report
January 31, 2011	August 1, 2010 to January 31, 2011	Interim Financial Report and Interim Narrative Report
July 31, 2011	February 1, 2011 to July 31, 2011	Interim Financial Report and Interim Narrative Report
January 31, 2012	August 1, 2011 to January 31, 2012	Interim Financial Report and Interim Narrative Report
July 31, 2012	February 1, 2012 to July 31, 2012	Interim Financial Report and Interim Narrative Report

- Interim Narrative and Financial reports must be submitted in the standard formats attached. All financial reports must be signed by the Project Manager and the Financial Officer of your organization.

- It is important that all reports be submitted in a timely manner to avoid delays in disbursement of funds.

AGRA contacts for this project. Questions of a substantive nature should be directed to Dr. George Bigirwa, Program Officer, Seed Production for Africa, GBigirwa@agra-alliance.org while all administrative questions should be directed to Mr. Ignatius Mutula, Grants Manager, IMutula@agra-alliance.org.

On behalf of AGRA, may I extend every good wish for the success of your work.

Sincerely,

Kwame Akuffo-Akoto
Chief Operating Officer

cc: Professor Agnes Mwang'ombe

Financial Reporting Format

Grant Number:
Grantee Institution:
Project Title:
Reporting Period:
Amount Received:
Total Expenditure:
Balance (to be returned to AGRA)

Approved Budget Line Items	Income		Expenditure			Balance as at (end of the reporting period)	Variances (explain +- variances of 10% and above)
	Total amount as in approved budget	Amount received to date	Previous Cumulative	Current Reporting	Cumulative Reporting to Date		
Personnel Costs		-				-	#DIV/0!
Research allowance						-	#DIV/0!
Casual Labour						-	#DIV/0!
Field supplies						-	#DIV/0!
Office supplies						-	#DIV/0!
Vehicle operating costs						-	#DIV/0!
International Travel						-	#DIV/0!
Local Travel and transportation						-	#DIV/0!
Meeting and training costs						-	#DIV/0!
Communications						-	#DIV/0!
Equipment purchase						-	#DIV/0!
Vehicles						-	#DIV/0!
Computers						-	#DIV/0!
Lab						-	#DIV/0!
Small store						-	#DIV/0!
Project monitoring costs						-	#DIV/0!
Indirect costs						-	#DIV/0!
Grand Total						-	#DIV/0!

FUNDS STATUS

Received to date		Date
i		
ii		
Total	-	

Expenditure to date	
Previous reporting period	
Current reporting period	
Cummulative to date	-
Balance on hand	-

Explanation of variances:

Other Expenditure Notes:

Signed by:
1) Principal Investigator:

2) Finance Officer:

AGRA Grant Narrative Report Outline

I. Title Page to contain the information below.

Grant No.:_____

Project Title: _____

Type of report: Interim _____Final_____

Period Covered by this report: From _____to_____

II. Background

Briefly describe the background to the project.

III. Activities

Describe the main activities carried out leading to the achievements attained.

IV. Achievements

Summarize the actual achievements of the project against planned project objectives, outputs and outcomes as they are set out in the approved proposal.

You are encouraged to use the sample table below. By the end of the section, the reader should have a clear picture of the main activities undertaken since the project began and the achievements attained at the end of the project period and the impact on the target population.

OBJECTIVE (List each objective)	**ACTIVITY** (Describe what has been done, how and when.)	**OUTPUT** (Provide quantifiable indicators of what has resulted or been produced and when.)	**OUTCOME** (Indicate who has used the immediate outputs, what steps have been taken to ensure their use, what benefits have resulted from using them, quantify the benefits as much as possible.)
Example:			
Objective 1	Activity 1.1	Output 1.1.1 Output 1.1.2	Outcomes 1.1.1.1 Outcomes 1.1.2.1

	Activity 1.2	Output 1.2.1 Output 1.2.2	Outcomes 1.2.1.1 Outcomes 1.1.2.1
Objective 2, etc.	Etc.	Etc.	

V. Challenges in carrying out the project- New Directions

Describe any challenges encountered in carrying out the project and how they were addressed. Indicate if the implementation plan was followed or whether changes had to be made due to problems encountered during the project period.

VI. Lessons learned

Indicate lessons learned that may inform your future work—what worked well and what could be improved.

BILL & MELINDA GATES *foundation*

PO Box 23350
Seattle, WA 98102, USA
V 206.709.3100
F 206.709.3180
www.gatesfoundation.org

April 4, 2013

Ms. Debbra Anne Matney
Program Coordinator
Iowa State University of Science and Technology
Office of Sponsored Programs Administration
1138 Pearson Hall
Ames, IA 50011

Re: Grand Challenges Explorations Grant Number: OPP1087071
Hand-Operated Seed Cleaner for Ugandan Women Farmer Groups

Dear Ms. Matney:

The Bill & Melinda Gates Foundation (the "Foundation") is pleased to award the Iowa State University of Science and Technology a one-time project support grant in the amount of US$100,000 for the period from May 1, 2013 to October 31, 2014. The purpose of the grant is to support your proposed project titled Hand-Operated Seed Cleaner for Ugandan Women Farmer Groups (the "Project") as described in your written proposal (the "Proposal") as part of the Grand Challenges Explorations initiative. This letter ("Grant Agreement") contains the terms and conditions under which the Foundation has awarded this grant to your organization.

I. Organizational Eligibility and Use of Funds

Tax Status. The Foundation is making this grant in reliance on the representation in your grant application and our understanding that your organization is exempt from United States Federal income tax under section 501(c)(3) of the United States Internal Revenue Code of 1986 (the "Code") and not a private foundation.

Use of Grant Funds. The use of the grant funds must be restricted solely to the purposes of the Project described in the Proposal. Grant funds may not be used: (a) for any purpose other than the Project; (b) to carry on propaganda or otherwise attempt to influence legislation; (c) to influence the outcome of any public election or to carry on, directly or indirectly, any voter registration drive; (d) to make a subgrant to any individual or to any other organization; or (e) for any purpose other than charitable, scientific, literary or educational purposes. Any portion of the grant funds unexpended or uncommitted at the end of the grant period must be promptly returned to the Foundation. Grant funds may only be used for the Project. Any grant funds unexpended or uncommitted at the end of the grant period must be promptly returned to the Foundation. You may not use the grant funds to reimburse any expenses you chose to incur prior to the start date.

Limitations on Capital Assets. You may use the grant funds to purchase capital assets such as equipment so long as (1) the assets are used exclusively for the Project during the term of the grant; (2) the cost of any single capital item does not exceed US$5,000; and (3) the aggregate amount of Foundation grant funds used to purchase capital assets does not exceed one-quarter (1/4) of the total grant funds (US$25,000).

Indirect Costs. Grant funds may not be used to pay any indirect costs. Indirect costs are defined as (1) overhead expenses incurred as a result of the Project, but that are not easily identifiable with the Project and (2) administrative expenses that are related to overall general operations and are shared among projects and/or functions. Examples of indirect costs include, but are not limited to, executive oversight, accounting, grants management, legal expenses, utilities, facility maintenance.

Anti-Terrorism. You confirm that you are familiar with the U.S. Executive Orders and laws prohibiting the provision of resources and support to individuals and organizations associated with terrorism and the terrorist related lists promulgated by the U.S. Government. You will use reasonable efforts to ensure that you do not support or promote terrorist activity or related training, or money laundering. Such efforts to comply with this provision should not be interpreted to interfere with your commitment to academic freedom and open debate on controversial issues.

II. Compliance

Compliance By All Parties. As the grantee for the Project, you agree that (1) all agreements with subcontractors to which you pay Foundation grant funds will be consistent with the terms and conditions of this Grant Agreement and (2) all subcontractors to which you pay Foundation grant funds shall be in compliance with the terms of this Grant Agreement (including, but not limited to, all limitations on the use of grant funds). You also agree that any activities by the Foundation in association with the Project or the Proposal will not modify the provisions of this Grant Agreement or constitute the basis for any claim by you against the Foundation. You agree to obtain all necessary regulatory and governmental licenses and approvals required to pursue the Project.

Conflict of Interest. You represent that you and any subcontractors selected by you to participate in the Project shall have in place and agree to comply with a conflict of interest policy, and that such policy complies with all relevant regulatory and legal requirements.

III. Research Practice Assurances

Limitations on Human Subjects Research. Grant funds may be used for human subjects research (including, but not limited to, the use of any human tissue samples or the conduct of human clinical trials), but you must have all appropriate approvals, assurances and certifications (including, but not limited to, IRB approvals) prior to the enrollment of the first human subject.

Compliance For All Sites. You agree for each venue in which any part of the Project is conducted, you and your subcontractors shall comply with all laws and regulations applicable to the conduct of the Project (including, but not limited to, any research or other activities that are governed by human subjects, animal welfare, and/or biosafety guidelines, laws or regulations), as well as to comply with and assure and gain timely, appropriate prior approval for all activities subject to regulation and/or other types of required assurances, certifications or legal requirements. You agree to obtain all necessary approvals, assurances and certifications required to pursue the Project. You acknowledge and agree that, as between you and the Foundation, you take and will have full responsibility for all such compliance, both for yourself and all other sites included in the Project, including without limitation those activities conducted through subcontracts.

IV. Payment and Reporting Schedules

Payment. The Foundation will disburse the grant funds to you via check or wire transfer within 10 business days of receipt of the countersigned Grant Agreement.

Reporting. You agree to provide the Foundation with a final Financial and Scientific Report via email to the Program Coordinator no later than December 15, 2014. Your reports should be submitted electronically to the Grand Challenges Explorations Program Coordinator at GCEAg@gatesfoundation.org.

Foundation templates, guidelines and other information will be communicated via e-mail once a countersigned grant agreement has been returned. All questions should be submitted electronically to the Grand Challenges Explorations Program Coordinator.

Subcontracts. Although you may not subgrant any funds received under this Grant Agreement, you may subcontract with third parties to conduct Project activities, so long as the aggregate amount of Foundation grant funds paid to subcontractors does not exceed one-third (1/3) of the total grant funds (US$33,000). As the grantee for the Project, your organization has sole responsibility for selection and oversight of any and all subcontractors. The Foundation does not approve the selection of any of your subcontractors, and will not oversee their respective activities. Therefore, no implication should be made to investors, media or the general public that the Foundation supports the activities of any subcontractor. The Foundation requires that you include this stipulation in any agreements with subcontractors you engage to assist with the Project.

Record Maintenance and Inspection. The Foundation requires that you maintain adequate records for the Project to enable the Foundation to easily determine how the grant funds were expended. Your books and records must be made available for inspection by the Foundation or its designee at reasonable times to permit us to monitor and conduct an evaluation of operations under this grant.

V. Global Access

Global Access. The Project, and the technologies and information arising from the Project, will be conducted and managed consistent with the Foundation's charitable purpose of ensuring "Global Access." Global Access requires that (a) the knowledge gained during the Project be promptly and broadly disseminated and (b) the intended product(s) be made available and accessible at reasonable cost to people most in need within developing countries. Your Global Access obligations regarding Project technologies and information will survive the grant period.

VI. Mandatory Participation in Designated Grand Challenges Explorations (GCE) Activities

Collaboration. The Foundation expects that grantees pursuing similar grand challenges and overarching goals will communicate and collaborate on a periodic basis in achieving progress towards these solutions. The Foundation will identify to you the other entities with which you should consider collaboration.

VII. Publication

Publication. You agree to prepare data sets and findings resulting from the Project for public presentation on the Grand Challenges for Global Health website (www.grandchallenges.org) as soon as practical following conclusion of the Project, after first evaluating whether there is a need to secure IP rights in order to facilitate the achievement of the Global Access objectives. All investigators and subcontractors supported in whole or in part by funds from this grant must be made aware of this obligation, and should use good faith efforts to publish or otherwise disseminate the Project findings as broadly and promptly as reasonably possible. All publications must include the acknowledgement, "Funded by a grant from the Bill & Melinda Gates Foundation through the Grand Challenges Explorations initiative."

Grant Announcements, Public Reports and Use of Foundation Name and Logo. The Foundation will include information on this grant in our periodic public reports and may make grant information public at any time on its web page and as part of press releases, public reports, speeches, newsletters, and other public documents. If you wish to issue a press release or announcement regarding the award of this grant, you must obtain advance approval from the Foundation of the press release and the date of release. You also agree to obtain advance approval from the Foundation for any other use of the Foundation's name or logo. The Foundation requests an opportunity to review and comment on subsequent press releases or reports that are directly related to the grant. Please contact the Foundation at Grantee.Comms@gatesfoundation.org at least two weeks before any press release, announcement or other publication date. Further information is available at:

http://www.gatesfoundation.org/grantseeker/Documents/Guidelines_Communications_for_Grantees.doc

Counterparts; Original. This Grant Agreement, including any amendments, may be executed in counterparts which, when taken together, will constitute one Grant Agreement. Copies of this Grant Agreement will be equally binding as originals and faxed or scanned and emailed counterpart signatures will be sufficient to evidence execution, though the Foundation may require you, the grantee, to deliver original signed documents.

Assignment. This Grant Agreement or any of the rights or obligations under this Grant Agreement may not be assigned without the Foundation's prior written consent. An assignment includes (a) any transfer of the Project; (b) an assignment by operation of law, including a merger or consolidation; or (c) the sale or transfer of all or substantially all of your organization's assets.

Entire Agreement, Severability and Amendment. This Grant Agreement is our entire agreement and supersedes any prior oral or written agreements or communications between us regarding its subject matter. The provisions of this Grant Agreement are severable so that if any provision is found to be invalid, illegal, or unenforceable, such finding shall not affect the validity, construction, or enforceability of any remaining provision. This Grant Agreement may be amended only by a mutual written agreement of the parties.

If this Grant Agreement correctly describes your understanding of the terms of this grant, please sign and return the Grant Agreement to Mie Otake , Grants Administrator at the Foundation, and keep a copy for your records. Grant award offers are only **valid until April 25, 2013**. Therefore, you must return a fully executed Grant Agreement to the Foundation by 12:00 p.m. U.S. Pacific Daylight Time on April 25, 2013 to receive a GCE Phase I grant award. If you have questions, please contact Mie at mie.otake@gatesfoundation.org or 206.770.1972.

[signatures on following page]

On behalf of the Foundation, I extend every good wish for the success of your work.

Sincerely,

Arlene Mitchell
Deputy Director, Access and Market Systems
Global Development Program
Bill & Melinda Gates Foundation

Iowa State University of Science and Technology, by its authorized representative agrees to the terms and conditions of this Agreement.

Marva K Ruther — 4/18/2013

Marva K. Ruther
Senior Award Administrator
Office of Sponsored Programs Administration
Iowa State University

Date

Acknowledged by:

Margaret A. Smith — 4/18/2013

Margaret Smith, Ph.D.
Project Manager

Date

Hand-Operated Seed Cleaners for Ugandan Women Farmer Groups

Section 1.

We propose that:

1. **An effective, portable, hand operated seed cleaner can be manufactured and distributed in Uganda for 500,000 to 625,000 Ugandan shillings ($200 to $250 USD equivalent)**
2. **Machinery maintenance for the seed cleaner can be adequately managed in rural areas**
3. **Women farmers will value their time savings and improved grain quality for their legumes such that they will be willing to individually spend 25,000 to 37,500 Ugandan shillings ($10 to $15 US dollars) for their management association to own and to share a seed cleaner.**

Background

Smallholder women farmers in central Uganda have readily adapted to organization structure of small groups to help them accomplish activities that benefit their families, but **little activity in Uganda toward improving family livelihoods has involved saving labor for smallholder women.**

Large-scale, motorized labor saving machines for shelling and grinding maize, in particular, have been introduced in the area, but because of fees required and stationary locations, **have not been widely used by women**. The vast majority of women farmers still thresh their maize grain from the cob by beating it on the ground with sticks. This practice is physical demanding, time consuming, damages grain and results in a dirty grain mass..

Simple, smaller-scale, labor saving devices are still beyond the price range of most individual smallholder Ugandan women farmers. However, our previous work has demonstrated that **groups of women farmers in the Kamuli district, organized in associations, have achieved success sharing machinery**, ie. a bicycle-powered maize sheller and a bicycle dedicated to its use. This machine (manufactured in Tanzania and available through a supplier in Uganda) has improved maize grain quality and storage life. Women have developed written charters for both their management associations and machinery sharing agreements for their sheller and bicycle. Women using these shellers and who have adopted written farm record keeping and joint, group grain marketing strategies, have increased their net returns from maize by 17 % and incomes by an average 162,500 Ugandan shillings (US $65) per year.

As these farmers have expanded into dry bean and soybean production, they identified their weak link in those value chains as their ability to clean the legumes. Threshing by hand, is fairly quick and very effective; whereas, hand winnowing is very tedious and time consuming. There is little wind, so women must blow on the beans and chaff to separate them. This process is not only extremely slow, but women experienced allergic reactions to soybean dust and chaff, with watering eyes, swollen lips and itching faces and necks. These women are also responsible for cleaning their husband's crops, adding weeks of labor to their work year.

Hand-Operated Seed Cleaner

Iowa State University College of Agriculture, (Ames, Iowa) and students from the ISU College of Engineering developed a prototype, small-scale seed cleaner that uses a squirrel cage fan, powered by hand cranking to separated chaff and dirt from heavy seeded crops. A prototype was tested on threshed dry beans and soybeans with Ugandan women farmers in August, 2012. The machine reduced the time to winnow (clean) these legumes by huge factor: seed lots were cleaned in 1/20 to 1/40th the time that women reported spending on hand winnowing. One hundred kilos of dry beans that previously took a week to clean required only one hour to clean by machine. In addition, grain quality was improved and women were no longer exposed to allergenic soybean dust and chaff. Women helping test the seed cleaner were excited about the cleaned grain and potential time savings it could offer them. They expressed interest in saving for or using available microloans to purchase a cleaner for their groups.

The design is currently being refined to integrate input from and accommodate the designated needs of the target farmer population, and to make the unit less repair prone and more durable. A second evaluation will be done in January, 2013 with six women farmer groups.

Section II.

Experimental Plan

In this project, we will evaluate the second generation, hand operated, seed cleaner with 20 farmer groups, including a total of 320 farmers. In addition to testing with dry beans and soybeans, we will also test the seed cleaner with dehulled groundnuts (peanuts) and grain sorghum.

Farmer groups will be in four different categories, based on their previous involvement with rural development programs. Farmer groups will be characterized by: 1. Four years or more involvement with VEDCO rural development projects, including two years of business management training; 2. Two to four years of involvement with rural development programs, including one year of business management training; 3. One to two years of involvement with rural development programs and no business management training; 4. Newly formed groups with no involvement with rural development programs

Our partner and subcontractor in country is VEDCO, (Volunteers Efforts in Development Concerns), a grassroots NGO that has worked in Uganda on rural development since 1986. VEDCO will identify groups and serve as the in-country project manager for communication and data collection among and within the farmer groups.

We are also collaborating with three business, training, and lending entities to achieve our objective. The first is TONNET Agro Engineering Co. Ltd, Kampala (www.tonnetagro.com) that is interested in manufacturing these seed cleaners. The second is St Joseph's Vocational Training Center in Kamuli that can train farmers and other interested individuals in machinery repair. They also have the ability to do repairs in their facility, if needed. The third is the local micro lending program, administered through VEDCO, which is willing to make loans to established women farmer groups with a record of group money management.

Data collection

Objective, (numeric)

1. Data collected on efficacy of the seed cleaner will include: time required for grain cleaning, time of hand winnowing (for comparison), cleanliness of machine cleaned and hand cleaned seed samples (by weighing chaff and crop residue remaining expressed as a percent of the cleaned sample), prices from prospective buyers for both hand cleaned and machine cleaned grain
2. Cost of materials and cost of production from TONNET Agro Engineering

Subjective (impressions and attitudinal change)

1. Interviews of women farmers will capture their observations about the efficacy of seed cleaning, ease of machine operation and transport, willingness to buy a unit and price they are willing to pay, and information about the logistics and challenges of machinery sharing.
2. Interview with staff at TONNET Agro Engineering and St. Joseph's Vocational Training will capture their interest and ability to manufacture seed cleaner on a commercial scale and to provide training on machinery maintenance and at what prices.

Budget: $100,000 Time frame: May 2013 to Oct., 2014 Project Work, Aug. 2013 to July, 2014

Second generation seed cleaners will be built May-through July, 2013 and distributed on a one – year loan basis, in August to 20 farmer groups. Farmers will use the machine among their groups for two growing seasons. Machine will be offered for sale to the groups at a discounted, 'used' rate at that time.

Data collection will be in August and September, 2013 and January and February, 2014 following the first and second crop growing seasons in the Kamuli district, respectively. Human subject survey information will be collected March through July, 2014.

The budget will be used to support in-country staff though our subcontractor, VEDCO; Iowa State University staff time for coordination, travel and work in country; and for internationals travel. Travel is also provided for three farmer volunteers who will accompany ISU staff to Uganda to help interpret the farmers' perspectives on machinery adoption and use.

Phase II Plans

In Phase II of the project, we will plant to increase the project scale and work in five to 12 districts of Uganda. The expanded project will have two major objectives 1. identify how much intervention is needed with women farmer groups for them to independently utilize new business skills and labor saving devices, and 2. identify a logical sequence of intervention steps and trainings that result

in greatest gains for women farmers in business management, improved family well-being, and labor savings.

104632/10-0230

BILL & MELINDA GATES *foundation*

PO Box 23350
Seattle, WA 98102, USA
V 206/709.3100
F 206/709.3180
www.gatesfoundation.org

May 3, 2010

Suzanne Schuknecht
Manager - Pre-award Services
Office Sponsored Programs Accounting
Iowa State University of Science and Technology
1138 Pearson Hall
Ames, Iowa 50011-2207

Re: Global Development Grant Number OPPGD1316 -SPEAR: Seed Policy Enhancement in African Regions

Dear Ms. Schuknecht:

The Bill & Melinda Gates Foundation (the "Foundation") is pleased to award Iowa State University of Science and Technology ("Iowa State University") a grant in the amount of $1,459,460.00 for the period beginning on the date you sign this agreement (the "Start Date") to April 30, 2013 (the "Grant Period"). This agreement (the "Grant Agreement") contains the terms and conditions of this grant.

Charitable Purpose of the Grant. The charitable purpose of this grant is to increase productivity on small farms in Malawi, Zambia, and Nigeria by implementing policy changes to augment the number of released varieties of different crops and enable the production of basic seed through the efforts of the seed authorities and the private seed sector, as described in your proposal (the "Proposal") and budget (the "Budget") dated March 4, 2010 (together, the "Project").

Tax-Exempt Status. Iowa State University confirms that under the United States Internal Revenue Code of 1986 (the "Code") it is exempt from federal income tax under section 501(c)(3) and is not a private foundation within the meaning of section 509(a) of the Code. You agree to advise us immediately if there is any change in your organization's exempt status during the Grant Period.

Use of Grant Funds. Grant funds may only be used for the Project. Any grant funds unexpended or uncommitted at the end of the Grant Period must be promptly returned to the Foundation. Any Budget cost category change of more than 10% must be approved in writing by the Foundation in advance. You may not use the grant funds to reimburse any expenses you chose to incur prior to the Start Date.

Political Campaign/Lobbying Activity. Grant funds may not be used to influence the outcome of any election for public office or to carry on any voter registration drive. There is no agreement, oral or written, permitting the grant funds to be directed to or earmarked for lobbying activity or other attempts to influence local, state, federal, or foreign legislation. Your strategies and activities, and any materials produced with grant funds, will comply with applicable local, state, federal, or foreign lobbying law. You agree to comply with lobbying, gift and ethics rules applicable to the Project under local, state, federal or foreign law.

Investment of Grant Funds. Grant funds must be invested in highly liquid investments (such as interest-bearing bank accounts) with the primary objective of preservation of principal so that they are available for the Project. The Foundation requires you to report the amount of any interest or other

income generated by the grant funds, including currency conversion gains (collectively "Interest"). Any Interest must be used for the Project. At the end of the Grant Period, any remaining Interest must be applied to another of your Foundation-funded projects (current or under consideration).

Anti-Terrorism. You confirm that you are familiar with the U.S. Executive Orders and laws prohibiting the provision of resources and support to individuals and organizations associated with terrorism and the terrorist related lists promulgated by the U.S. Government. You will use reasonable efforts to ensure that you do not support or promote terrorist activity or related training, or money laundering.

Fellowships/Travel Stipends/Conference Attendance Subsidies. You have the exclusive right to select the individuals to whom you will give fellowships, travel stipends, or conference attendance subsidies and you will conduct the selection process independently of the Foundation. Foundation employees are not eligible to receive travel stipends or conference expense reimbursements.

Subgrants and Subcontracts. You have the exclusive right to select subgrantees and subcontractors for the Project. The Foundation has not earmarked the use of the grant funds for any specific subgrantee or subcontractor. You, and not the Foundation, are responsible for ensuring that all subgrantees and subcontractors use grant funds consistent with this Grant Agreement and the Proposal. Neither you nor your subgrantees or subcontractors may make any statement or otherwise imply to donors, investors, media or the general public that the Foundation directly funds the activities of any subgrantee or subcontractor. Any agreements with subgrantees and subcontractors you engage to assist with the Project must include the following language: "Your organization has been selected to participate in this Project at our discretion. You may not make any statement or otherwise imply to donors, investors, media or the general public that you are a direct grantee of the Bill & Melinda Gates Foundation ("Foundation"). You may state that Iowa State University of Science and Technology ("Iowa State University") is the Foundation's grantee and that you are a subgrantee or subcontractor of Iowa State University for the Project."

Payments and Reports. This table shows the deliverables (including reports) and milestones for this grant. Where indicated, the Foundation's payment is contingent on satisfaction of the listed deliverable and/or milestone. The Foundation may authorize changes to the payment and reporting schedules from time to time where appropriate. The Foundation will confirm any such changes in writing.

Payment Date	Payment Amount	Milestone or Deliverable	Due by	Reporting Period
Within 15 days of receiving the countersigned agreement	$574,326.00	Countersigned Agreement	-----	-----
August 2011	$440,241.00	Narrative and Financial Report	June 30, 2011	Start Date to May 31, 2011
August 2012	$444,893.00	Narrative and Financial Report	June 30, 2012	June 1, 2011 to May 31, 2012
-----	-----	Final Narrative and Financial Report	July 31, 2013	Start date to May 31, 2013
AWARD TOTAL	$1,459,460.00	-----	-----	-----

Milestones. For a report to be satisfactory, you must demonstrate meaningful progress against the listed milestones and those in the Proposal. Additional, more detailed, or modified milestones may be mutually agreed upon from time to time during the Grant Period. The Foundation will confirm any such agreed changes to the Milestones in writing.

Report Templates. You are required to submit one or more reports regarding the expenditure of grant funds and your progress on the Project. The Foundation's report templates and submission guidelines for this grant can be found at the following links: Narrative and Financial Report http://www.gatesfoundation.org/nr/downloads/globaldevelopment/grantseeker/Guideline_GD_AnnualReport.doc. Final Narrative and Financial Report: http://www.gatesfoundation.org/nr/downloads/globaldevelopment/grantseeker/Guideline_GD_FinalReport.doc. These templates and guidelines are subject to change. Please submit reports electronically to your Program Officer or Program Coordinator. The Foundation will send you an email with the contact information for these individuals. You also agree to submit other reports that the Foundation may reasonably request.

Record Maintenance and Inspection. The Foundation requires that you maintain adequate records for the Project to enable the Foundation to easily determine how the grant funds were expended. Your books and records must be made available for inspection by the Foundation or its designee at reasonable times to permit us to monitor and conduct an evaluation of operations under this grant.

Compliance. If (a) the Foundation is not reasonably satisfied with your progress on the Project; (b) significant leadership or other changes occur that the Foundation believes may threaten the Project; or (c) you fail to comply with any term or condition of this Grant Agreement, the Foundation will notify you of its concerns and provide you with a reasonable period of time to address them. If no resolution satisfactory to the Foundation is reached within that time period, the Foundation may, at its discretion, terminate the grant. If the Foundation determines that the cause of its concerns cannot be remedied, the Foundation may immediately terminate, suspend, or withhold payment on the grant. On termination, if requested by the Foundation, you agree to promptly return to the Foundation any unspent and uncommitted grant funds (as of the date of termination) previously distributed to you by the Foundation for the Project.

Research and Evaluation. The Foundation values research and evaluation of the projects it funds. You agree to inform the Foundation of any research or evaluation you conduct or commission regarding the Project and to provide to the Foundation a copy of any report or findings from the research or evaluation. The Foundation or its evaluation partner will notify you in writing of your inclusion in any research project undertaken by the Foundation. If you are selected to participate in Foundation-sponsored research or evaluation for the Project, you agree to (a) allow and facilitate the Foundation's evaluation partner to implement an evaluation plan; (b) identify an on-site evaluation coordinator who will serve as a contact; (c) facilitate the collection of data; and (d) permit the Foundation to disseminate the results of the research or evaluation. The Foundation's evaluation partner will provide appropriate privacy and other protections to participants.

Global Access. You acknowledge the Foundation is making this grant in furtherance of its charitable purposes and, as a condition, you agree to conduct and manage the Project, and Project technologies and information, in a manner that enables (a) the knowledge gained during the Project to be promptly and broadly disseminated and (b) the intended product(s) to be made available and accessible at reasonable cost to people most in need within developing countries. Specifically, you agree to ensure that any price

structuring under the licensing is accessible to smallholder farmers in SSA. The Foundation refers to this as "Global Access". In addition, you agree to ensure that all transfers of materials across borders as well as all releases of varieties under this Project are conducted in compliance with all applicable local, regional, national and international laws and regulations. Your commitment to Global Access in regard to Project technologies and information will survive the Grant Period.

Grant Announcements, Public Reports and Use of Foundation Name and Logo. The Foundation will include information on this grant in our periodic public reports and may make grant information public at any time on its web page and as part of press releases, public reports, speeches, newsletters, and other public documents. If you wish to issue a press release or announcement regarding the award of this grant, you must obtain advance approval from the Foundation of the press release and the date of release. You also agree to obtain advance approval from the Foundation for any other use of the Foundation's name or logo. The Foundation requests an opportunity to review and comment on subsequent press releases or reports that are directly related to the grant. Please contact Abigail Faylor at 425-452-5497 or AFaylor@WeberShandwick.com at least two weeks before any press release, announcement or other publication date. Further information is available at the following link:
http://www.gatesfoundation.org/nr/downloads/globaldevelopment/grantseeker/Guidelines_GD_GrantAnnouncements_for_Grantees.doc

Counterparts; Original. This Grant Agreement, including any amendments, may be executed in counterparts which, when taken together, will constitute one Grant Agreement. Copies of this Grant Agreement will be equally binding as originals and faxed or scanned and emailed counterpart signatures will be sufficient to evidence execution, though the Foundation may require you, the grantee, to deliver original signed documents.

Assignment. This Grant Agreement or any of the rights or obligations under this Grant Agreement may not be assigned without the Foundation's prior written consent. An assignment includes (a) any transfer of the Project; (b) an assignment by operation of law, including a merger or consolidation, or (c) the sale or transfer of all or substantially all of your organization's assets.

Entire Agreement, Severability and Amendment. This Grant Agreement is our entire agreement and supersedes any prior oral or written agreements or communications between us regarding its subject matter. The provisions of this Grant Agreement are severable so that if any provision is found to be invalid, illegal, or unenforceable, such finding shall not affect the validity, construction, or enforceability of any remaining provision. This Grant Agreement may be amended only by a mutual written agreement of the parties.

If this Grant Agreement correctly describes your understanding of the terms of this grant, please sign both originals of this Agreement and return one to Jennifer Kohler, Grants Coordinator, at the Foundation's address: 1432 Elliot Avenue West; Seattle, WA 98119. Please keep the other original for your records. If you have questions, please contact Amsale Mengistu, Grants Manager at 206.709.3377 or *amsale.mengistu@gatesfoundation.org*.

On behalf of the Foundation, may I extend every good wish for the success of your work.

Sincerely,

Jim Bromley
Operations Director
Global Development Program
Bill & Melinda Gates Foundation

Iowa State University of Science and Technology, by its authorized representative, agrees to the terms and conditions of this Grant Agreement.

~~Suzanne Schuknec~~ht ANNE KINZEL
Manager ~~Pre award Servic~~es
SENIOR AWARDS ADMINISTRATOR

May 21, 2010
Date

Appendix C: Budget Spreadsheet

Organization Name: IOWA STATE UNIVERSITY
Project Title: Seed Policy Enhancement in African Regions SPEAR
Total Requested Amount (US $)[1]: $1,459,460
Date:
Indirect Cost Rate 10% 0.1

BILL & MELINDA GATES *foundation*

Budget Line Items	Year 1	Year 2	Year 3	Year 4	Year 5	Total	% of Total	Non-U.S. Grants Only Total Costs to be spent in U.S.	NOTES
Total Personnel	**77,684**	**75,809**	**68,199**	**0**	**0**	**221,692**	**15%**		
Team Leader (P&S)	16,320	16,810	17,314	0	0	50,444			
Team Leader (P&S)	16,320	16,810	17,314	0	0	50,444			
Technical Specialist (P&S)	9,567	9,854	10,149	0	0	29,570			
Technical Specialist (P&S)	4,783	4,926	5,074	0	0	14,783			
Communications Specialist (P&S)	3,897	4,014	4,134	0	0	12,045			
IT Specialist (P&S)	14,576	15,014	7,732	0	0	37,322			
Licensing Specialist (P&S)	8,167	4,206	4,332			16,705			
Secretarial Support (Merit)	4,054	4,175	2,150			10,379			
Total Fringe Benefits	**27,266**	**26,632**	**23,773**	**0**	**0**	**77,671**	**5%**		
Team Leader (P&S)	5,630	5,799	5,972	0	0	17,401			
Team Leader (P&S)	5,630	5,799	5,972	0	0	17,401			
Technical Specialist (P&S)	3,301	3,400	3,502	0	0	10,203			
Technical Specialist (P&S)	1,650	1,699	1,751	0	0	5,100			
Communications Specialist (P&S)	1,344	1,385	1,426	0	0	4,156			
IT Specialist (P&S)	5,029	5,180	2,668	0	0	12,876			
Licensing Specialist (P&S)	2,818	1,451	1,495	0	0	5,763			
Secretarial Support (Merit)	1,864	1,919	988			4,771			
Total Travel	**63,000**	**49,000**	**35,000**	**0**	**0**	**147,000**	**10%**		
Streamlining the Variety Release System	42,000	28,000	21,000	0	0	91,000			
Enhancement of Genetics Access and Transfer	21,000	21,000	14,000	0	0	56,000			
Major Activity 3:	0	0	0	0	0	0			
Major Activity 4:	0	0	0	0	0	0			
Major Activity 5:	0	0	0	0	0	0			
Total Consultants	**0**	**0**	**0**	**0**	**0**	**0**	**0%**		
Streamlining the Variety Release System	0	0	0	0	0	0			
Enhancement of Genetics Access and Transfer	0	0	0	0	0	0			
Major Activity 3:	0	0	0	0	0	0			
Major Activity 4:	0	0	0	0	0	0			
Major Activity 5:	0	0	0	0	0	0			
Supplies	**5,000**	**5,000**	**5,000**	**0**	**0**	**15,000**	**1%**		
Streamlining the Variety Release System	2,500	2,500	2,500	0	0	7,500			
Enhancement of Genetics Access and Transfer	2,500	2,500	2,500	0	0	7,500			
Major Activity 3:	0	0	0	0	0	0			
Major Activity 4:	0	0	0	0	0	0			
Major Activity 5:	0	0	0	0	0	0			
Subtotal of Modified Direct Costs	172,950	156,441	131,972	0	0	461,363			

Appendix C: Budget Spreadsheet

Organization Name: IOWA STATE UNIVERSITY
Project Title: Seed Policy Enhancement in African Regions SPEAR
Total Requested Amount (US $)[1]: $1,459,460
Date:
Indirect Cost Rate 10% 0.1

BILL & MELINDA GATES *foundation*

Budget Line Items	Year 1	Year 2	Year 3	Year 4	Year 5	Total	% of Total	Non-U.S. Grants Only Total Costs to be spent in U.S.	NOTES
Streamlining the Variety Release System	15,000	15,000	15,000	0	0	45,000			
Enhancement of Genetics Access and Transfer	15,000	15,000	15,000	0	0	45,000			
Major Activity 3:	0	0	0	0	0	0			
Major Activity 4:	0	0	0	0	0	0			
Major Activity 5:	0	0	0	0	0	0			
Total Sub-grants to Others Organizations	**321,164**	**213,778**	**242,476**	**0**	**0**	**777,418**	**52%**		
Streamlining the Variety Release System	157,197	104,903	113,600	0	0	375,700			
Enhancement of Genetics Access and Transfer	163,967	108,875	128,876	0	0	401,718			
Major Activity 3:	0	0	0	0	0	0			
Major Activity 4:	0	0	0	0	0	0			
Major Activity 5:	0	0	0	0	0	0			
Subtotal of Sub-grants/contracts	351,164	243,778	272,476	0	0	867,418			
Allowable Indirect Costs on Sub-grants/contracts[2,3]	32,917	24,378	27,248			84,543	6%		
Subtotal of Sub-grants/contracts and Allowable Indirect Costs	**384,081**	**268,156**	**299,724**	**0**	**0**	**951,961**			
Total Equipment	**0**	**0**	**0**	**0**	**0**	**0**	**0%**		
Streamlining the Variety Release System	0	0	0	0	0	0			
Enhancement of Genetics Access and Transfer	0	0	0	0	0	0			
Major Activity 3:	0	0	0	0	0	0			
Major Activity 4:	0	0	0	0	0	0			
Major Activity 5:	0	0	0	0	0	0			
Total Direct Costs	524,114	400,219	404,448	0	0	1,328,781	91%	$0	
Total Indirect Costs	50,212	40,022	40,445	0	0	**130,679**	9%		
Grand Total Costs	**574,326**	**440,241**	**444,893**	**0**	**0**	**1,459,460**	100%	$0	

[1] All amounts must be in US $

[2] Indirect rates are only applicable to the first $100,000 for sub-grants and certain sub-contracts (see narrative) and was applied to ISU. Any sub-grants and sub-contracts over $100,000 was applied to the sub-grantee/subcontractee.

[3] Indirect allocation is not allowed on equipment costs

I. Proposal Information

A. Organization

Organization Name: Iowa State University

U.S. Tax Status (Refer to Tax Status Definitions)[1]: EXEMPT Status #42-6004224 (See Appendix D)

Institutional Official authorized to submit and accept grants on behalf of organization:

Ms.	Suzanne	*Surname*	Schuknecht
Title	Manager-Pre-award Services	*Telephone*	515-294-5225
		Fax	515-294-8000
Address	Office Sponsored Programs Acct 1138 Pearson Hall Iowa State University Ames, IA 50011-2207		
E-mail	grants@iastate.edu		
Web site	http://www.ospa.iastate.edu/		

B. Project

Project Name: Seed Policy Enhancement in African Regions (SPEAR)

Principal Investigator/Project Director:

	Dr. *First name* Joseph	*Surname*	Cortes
Title	Global Seed Program Leader	*Telephone*	515-294-5363
		Fax	515-294-2014
Address	162 Seed Science Center Ames, Iowa 50011-3228		
E-mail	jcortes@iastate.edu		
Web site	www.seeds.iastate.edu		

Amount Requested From Foundation ($USD):	$ 1,459,460	**Project Duration (months):**	36
Estimated Total Cost of Project ($USD):	$ 1,459,460		
Organization's total revenue for most recent audited financial year ($USD) [ISU 2007-2008]	$ 955,060,000 (See Appendix D)		

[1] If you fall within one of the first five categories please include your IRS tax determination letter in Appendix A. If you are a non-U.S. charitable organization, please see fiscal status link

Grant Proposal – Summary Information

Charitable Purpose:

To increase productivity on small farms in Malawi, Zambia, and Nigeria by implementing policy changes to augment the number of released varieties of different crops and enable the production of basic seed through the efforts of the seed authorities and the private seed sector.

Project Description. Funding will be applied toward the implementation of the regional agreements on variety release in Malawi and Zambia of the Southern Africa Development Community (SADC) region, and Nigeria of the Economic Community of West African States (ECOWAS). This will include the updating of the national variety release system, providing resources for data management and training, and ensuring timely analysis and decision-making of candidate varieties.

This project also proposes the development of a mechanism for genetics access and transfer in these three countries that will provide basic seed to seed companies on a timely and equitable basis. National, regional and international public and private genetics providers will engage with existing seed companies of the three countries leading to increase the production and availability of improved varieties to smallholder farmers.

The Iowa State University Global Seed Program will partner with the Food, Agriculture, and National Resources Policy Analysis Network (FANRPAN) for Malawi and Zambia, the Permanent Inter-States Committee for Drought Control in the Sahel (CILSS) for Nigeria and the three National Seed Trade Associations of the countries mentioned in this project.

Grant Proposal Narrative

I. Background and Rationale

Harmonizing seed regulations across multiple countries is key to delivering improved seed varieties into the hands of farmers throughout sub-Saharan Africa and will lead to increased productivity, food security, and income for farm families. Recent advances in the drafting and ratification of regulations to support the harmonization of seed variety release, quality control, and production in western and southern Africa has laid the groundwork toward ensuring that smallholder farmers have access to improved varieties and high-quality seeds. The harmonization enhances farmer access because it facilitates trans-boundary movement for seed companies, lowering costs of variety testing and release, reducing costs for seed certification and quality control, and saving time on import/export procedures. These improvements also are reflected on the increased efficiency of the national seed authority and the plant protection authority as they implement the harmonized regional agreements. The importance of ownership of the national authorities in implementing the agreements cannot be overemphasized enough. They must feel that they are the owners of the processes and ISU has accomplished this goal utilizing process management as a tool for them to document their agreed upon procedures.

In southern Africa, Iowa State University (ISU) has been leading a project with the 14 Southern Africa Development Community (SADC) countries in which seed policy agreements have been reached and approved by the ministers of agriculture (MOA) of the region. Several institutions, including CGIAR centers contributed to this effort and the MOU is scheduled to be signed in early 2010. *This recent approval has opened the door for the implementation of the agreements, of which the most important is the regional variety release system.* Other agreements awaiting implementation include common seed certification standards, accreditation, regional quarantine pest lists based on science, and import/export procedures. In West Africa, Iowa State has also participated in the seed policy harmonization efforts of the 17 countries of the Economic Community of West African States (ECOWAS)/Permanent Inter-States Committee for Drought Control in the Sahel (CILSS). With ECOWAS approvals for regional variety release and common seed certification, the countries of the region stand ready for implementation of the policy agreements. A great deal of progress must be made to translate the above-mentioned policy agreements into action at national levels.

In addition, policy improvements need to be made for transparent and easy access to basic seed. It is critical that as new varieties are released, basic seed be made available to all seed businesses. The lifeline of a seed company is access to new and improved genetics that can be transferred to farmer fields. Existing and new seed companies will need breeder and/or basic seed of improved varieties to obtain their certified seed production targets.

The proposed Seed Policy Enhancement in African Regions (SPEAR) project will address the implementation of the starting point of a formal seed system —implementation of the policy component of variety release at a national level, and improvement of genetics access and transfer.

This is the first agreement of the seed policy harmonization efforts in SADC and ECOWAS and is also the first priority for implementation, as it improves the access to new materials being developed. . In the case of variety release, the measure of success is the number of varieties released at a national level, the reduction in time for a variety to be released, and the efficiency of the variety release system.,

Iowa State University's Seed Science Center has proven expertise and success in the area of regional seed policy harmonization in Central America, MERCOSUR, East Africa, Andean Pact, and Asia Pacific. In these regions, the implementation of the agreements was left to the countries with mixed results due to lack of follow-up to the public and private seed sector. Applying the lessons learned in other regions, ISU is now prioritizing the implementation at national level of the regional seed agreements in SADC and ECOWAS.

With the experience accumulated with the regional harmonization in SADC and ECOWAS, ISU has also established strong relationships with ministries of agriculture in a variety of African countries, the public and private seed sector, international and national agencies, and NGOs. We propose to build upon this experience and collaborative relationships to advance this harmonization policy to actionable reality in western and southern Africa. We firmly believe that these harmonization efforts will provide support to a burgeoning private sector and will benefit farmers in many crops (18 selected crops in SADC and 11 selected crops in ECOWAS).

Initiating such an effort is particularly appropriate at this time because the United States Agency for International Development (USAID)-Southern Africa has recently committed funding for the establishment of a regional SADC Seed Unit that will handle the central operations of the regional variety release system. In the same vein, SPEAR will contribute to the efforts of the Food and Agricultural Organization (FAO) and the USAID in West Africa by addressing the regional variety release component. The project will also complement the efforts of the Alliance for a Green Revolution in Africa (AGRA) in building the capacity of the private seed sector and the agro-dealers' network.

The project will be of immense value to the variety development efforts being carried out in the region by on-going BMGF-funded projects, i.e. Drought Tolerance Maize for Africa Initiative (DTMA) of CIMMYT, Harvest Plus, and Harnessing Opportunities for Productivity Enhancement (HOPE) of ICRISAT. Other international efforts of research centers, such as WARDA in rice, CIAT in beans, and IITA in cassava will also see faster releases and into more countries as a result of the success of SPEAR and AGRA's partner project.

SPEAR will ensure that other neighboring countries are made aware of the objectives and progress of this project, as well as the partner project of AGRA. This will be accomplished through the regional seed mechanisms of SADC and ECOWAS utilizing the regional partner resources of CILSS, FANRPAN, AFSTA, and the NSTAs. This will allow for a strong spillover effect as a result of SPEAR and AGRA's common efforts in Malawi, Zambia, Tanzania, and Mozambique in SADC and Nigeria, Mali, and Ghana in ECOWAS.

II. Project Objectives

The overall vision of success for SPEAR is to make improved varieties available to smallholder farmers in selected countries through the enhancement of the variety release and basic seed systems. This vision contributes to the goal of the Bill & Melinda Gates Foundation (BMGF) Agricultural Development Initiative of tripling the income of 150 million smallholder farmers, and reducing hunger and under-nutrition in sub-Saharan Africa and South Asia.

The two major objectives of this proposal are to implement policy changes for: (A) streamlining the variety release system at the national level, and (B) enhancement of access to genetics of public and private varieties for selected countries. As these two objectives are accomplished, an increased number of improved varieties will be released as a result of the system becoming more efficient. The national variety release authority will become more effective in evaluating and approving national and regional materials. Of equal importance, is the substantial increase in basic seed production and availability coupled with licensing agreements between genetic providers and seed companies.

The following are the activities proposed for each major objective:

Objective 1: Streamlining the Variety Release System

The following activities achieve the objective of streamlining the variety release system:

1. **Establish variety release regulations based on the procedure manual agreed upon by the region**

   The national regulations will be streamlined to reflect the procedures and requirements of the regional variety release agreements . This includes the acceptance and analysis of regional applications, allowing the private sector to conduct tests for distinctness, uniformity, and stability (DUS) and value for cultivation or use (VCU) for submission to the government, and the rapid incorporation of regionally released varieties into the national list.
   To ensure the approval of the modified regulations, the project will conduct government engagement efforts through the regional partner with decision makers. These efforts will result in updated national regulations for the registration and release of new varieties. The indicator will be the modified national seed regulations.

2. **Update national variety release data management**

   The national variety release authority office of each target country will be updated by providing the necessary computer hardware, software, and Internet

connection as well as the installation. This includes an assessment of the hardware and software availability, the internet connectivity and bandwidth size in the selected countries. This would be followed by the selection and installation of the appropriate hardware. A software program will be developed for the national variety release system. The beta testing of software will be conducted in Malawi and Zambia with the SADC Regional Seed Office (SADC-RSO) proposed to be hosted at the SADC Plant Genetic Resources Center at Lusaka, Zambia. In the case of Nigeria, the beta-testing will occur in collaboration with the seed secretariat of CILSS in Bamako, Mali.

Assistance will also be provided to the national variety release authorities in analyzing applications and submission to regional seed offices using the software. Breeders will also be provided assistance in preparing real applications of existing seed varieties for presentation to the national variety release authority. This will lead to the final step of receiving approved regional variety releases and incorporating them into national lists for marketing to smallholder farmers. The indicator will be an increased number of breeder applications for national and regional variety releases.

3. Build capacity for variety testing

The project aims to provide practical training for officials of the regulatory agencies, breeders of the NAROs, and breeders of the private seed sector to enable them to examine the characteristics and the performance of the candidate variety based upon the requirements established in the SADC and ECOWAS variety release manuals. This is due to the fact that all parties need to know the newly agreed DUS and VCU characteristics and testing methodologies. Additional practical training for breeders will enable them to conduct DUS and VCU trials in line with the requirements established by the modified regulations. The output of these trainings will be an increased number of public and private sector individuals capable of conducting and examining DUS and VCU tests. The indicator of this action will be that at least 12 individuals from each of the three countries will be trained. Twenty percent of these individuals will be female, based on the knowledge of the gender make-up of the countries in the region.

4. Facilitate the registration of existing and new varieties

This activity is comprised of several actions to ensure that smallholder farmers have access and the information to choose new varieties. This includes providing technical assistance for breeders from the public and private sector to complete the registration of their varieties in compliance with the new DUS and VCU testing requirements. These are necessary steps to apply for release of new varieties at national and regional levels. Technical support resources and supplemental

funding will be provided for facilitating meetings of the National Variety Release Committee (NVRC) to ensure the evaluation, approval, and release of new varieties in a timely manner. Sometimes, although meetings are scheduled, they are not held, i.e. two years in Mozambique. The sustainability of the NVRC will be explored and defined in specific meetings through a viable mechanism. As indicated earlier, funding for variety release committees is to promote timely meetings and minimize risk of delayed variety releases. As the governments in these countries experience success, there will be more understanding and willingness to ensure continuity of these meetings after EOP.

Informational meetings will also be held with government decision makers, officials, farmers, breeders, extension services, women producer groups, and seed companies to create awareness of new varieties. This will be complemented by the distribution of an updated national list for seed companies and promotional materials for smallholder farmers. These outreach efforts will be conducted in a gender friendly manner (using pictures instead of words showing women using the seeds, etc.) and include women in the meetings, i.e. FANRPAN's WARM project participants. Additional outreach will be undertaken to ensure that women farmers are given equal opportunity to access all publicity and information.

The result of these actions will be the culmination of objective one—the National Variety Release Committee meeting consistently, new varieties being released, and farmers informed of new varieties, as a result of a fully functional national release authority. Indicators include two meetings per year of the NVRC, at least eight new varieties released per country after three years, and 20% of farmers in target areas informed of new varieties. The outcome of an increased number of released varieties per country cannot be expected from other on-going projects. SPEAR is the only project that addresses this constraint at a national level in the selected countries, working directly with the National Variety Release Authorities to improve their systems and procedures based on the regional agreements.

Objective 2: Enhancement of Genetics Access and Transfer

5. Develop a Genetic Access and Transfer Scheme (GATS) for each of the selected countries

A mechanism is proposed for the existing breeder and basic seed production systems in each of the selected countries. The analysis of the different countries' systems of breeder and basic seed production and allocation suggests that a major overhaul is necessary to ensure the timely and equitable delivery of seed to the local seed companies. The first step involved in accomplishing this task will be the development of a Genetics Access and Transfer Scheme (GATS).

GATS is not an institution, but a scheme to transfer breeder and/or basic seed to the private sector in a timely and equitable way. It is envisioned that, there will be commonality among the different GATS, but each country will be different in its final scheme. We propose a methodology to reach a final scheme based on discussions with the key stakeholders. The discussions will include important topics i.e., where should it reside, what should be the legal status and the financial rules, what are the financial arrangements for sustainability, is it part of NARO or quasi-independent, who are its members. GATS is the systematic way of addressing the policies, framework, and availability of improved varieties.

The proposed scheme is a multi-stakeholders and multi-channel production scheme with transparency. Also, part of what is proposed is more of a procedure than a specific "one way only" scheme. We recognize that it is our goal to facilitate the private sector participation in the basic seed production, but we must facilitate this transition diplomatically depending upon each country's realities. The scheme will be analyzed and discussed in-country with the regional and national partners and stakeholders. A government engagement effort to push the final draft will be carried out by the regional partners with the support of ISU and national stakeholders, and will lead to the approval of the final document by the corresponding National Agricultural Research Organization (NARO). These actions will translate into a scheme that will be responsive to the needs of the private seed sector in terms of accessing genetic and/or basic seed from the NAROs. The final approval of the GATS scheme and signed seed contracts between the NARO and the private sector are the indicators of this effort.

6. Enhance the licensing of new varieties between NAROs and seed companies

This activity initiates with the development of a variety licensing policy proposal draft for the NARO and the GATS, followed by discussions with the NARO, GATS, FANRPAN, CILSS and stakeholders.. SPEAR will also go further and demonstrate the implementation of the policy through licensing agreements signed and executed between seed businesses and the NARO's leading to specific contracts. The indicators of this activity will include a NARO licensing-policy document and an estimated total of 25 public and private individuals trained in licensing. Again, based on the knowledge of gender make-up of public and private seed sector, it is expected that 40% of trained individuals will be female.

7. Improve the licensing of new material between private genetics providers and seed companies

The lack of licensing agreements of new varieties also extends to those between private genetics providers and local seed companies. Most existing providers do have their own seed companies. However, some private genetic providers inside SADC region and outside the NARO (as an example MRI from Zambia) have expressed interest in licensing their genetics to seed companies of the region. In the interest of farmers, we will facilitate the licensing in these situations also. The training mentioned in Activity 6 also applies to this activity, bringing together potential providers and seed companies to expand the number of varieties available to smallholder farmers—the recipients of the new genetics. The project will facilitate one-on-one formal discussions between parties to achieve initially mutual understanding and trust. The following actions of joint-material testing and performance evaluation will be the starting point for future licensing contracts. The indicator will be the number of dialogs established between genetics providers and seed companies and the number of varieties tested in performance trials.

III. Project Design and Implementation Plan

We propose to begin work with selected countries in the SADC and ECOWAS regions by building on ratified regional seed harmonization regulations, which can be implemented by countries on the national level, into practical reality. These countries can then be used as models to guide other countries in the region in the advancement of their own national regulations and seed system procedures, and in aligning them with regional seed agreements.

The scope and selection of countries addressed in this grant is based on what is perceived to be the most feasible and appropriate number based upon available funds and the time frame allowed for project completion. The proposed criteria for country selection includes:
(a) probability/willingness to change; (b) unfulfilled demand for basic seed; (c) availability of plant variety protection laws; (d) countries where AGRA policy hubs do not exist so as to avoid duplication and facilitate mutual learning; (e) AGRA/BMGF priority countries; (f) existing relationships and contacts with ISU in the region; and (g) country seed production capability. Based on the above criteria, the three selected countries are Malawi and Zambia in SADC and Nigeria in ECOWAS.

Estimates obtained from the public and private seed sector of the three target countries of Malawi, Zambia, and Nigeria indicate that farmer use of certified seed of improved varieties in these areas can be increased. In the lesser-favored areas of Malawi, seed use of groundnut, beans, and rice is between 5-10% (particularly in Mzuzu, Zomba, and Blantyre). Currently, Malawi is producing 7900 tons of maize seed covering 25% of the requirements with the government purchasing about 70% through their voucher system. In Nigeria, IITA has demonstrated that yields can be significantly improved from 1.5 to 4.3 tons/ha utilizing improved varieties and high quality seed. In a 2008 news release, a Nigerian senator indicated that “existing companies provide less than 2% of the 600,000 metric tons needed annually. Zambia produces 10,200 tons of maize seed with direct sales to farmers through distributors and exports. Although Zambia may be ahead in maize productivity levels, seed of improved varieties of several other crops is in very short supply.

Most of the genetics for food crops in the region are coming from the NAROs through the Consultative Group on International Agricultural Research (CGIAR) Centers' research efforts. Varieties are released, but many times the NAROs have no buyers for their foundation seed, do not produce seed, or have disparate allocation policies that discourage further production. This limits the seed available for seed company start-ups. Equally important is that, based on a BMGF-funded research by CIMMYT, "more than half of the seed companies think it is difficult or very difficult to access germplasm from NARO (3). At the same time, some private-sector providers of genetics are not interested in marketing NARO genetics because of the low level of seed sales. This disinterest is augmented as a result of a lack of variety licensing, Plant Breeders Rights, and/or their enforcement where they exist.

ISU proposes to involve national and regional partners to accomplish the objectives stated. This will include the country NARO, the Seed Authority, and the National Seed Trade Association, as well as strong and appropriate regional implementing partners, FANRPAN and CILSS, and collaborating partners (AGRA and the African Seed Trade Association [AFSTA]). A critical factor in achieving the policy reforms and implementation of the SADC and ECOWAS regional agreements at the national levels, relies on government engagement efforts, particularly with the National Seed Authorities (NSA), the National Variety Release Committee (NVRC), and the National Agricultural Research Organizations of each country. FANRPAN and CILSS, with their strengths and networks at the national level, will be the primary institutions responsible for championing the policies and regulations modifications as needed for national variety release and the genetics access and transfer scheme. FANRPAN and CILSS, with the support of ISU, will also be responsible for all government-related activities involved in implementing the project at the national level. The national seed trade associations—the Seed Trade Association of Malawi (STAM), the Zambian Seed Trade Association (ZASTA), and the Nigerian Seed Trade Association will contribute to national government engagement efforts in each country respectively. They will identify the varieties needed of the different crops with their member companies and will elaborate basic seed production contracts with the GATS. The experience and technical know-how of ISU, together with the networks and reputation of FANRPAN and CILSS, and the interest of the seed trade associations, will complement each other in obtaining the outputs and outcomes determined in the seven activities proposed in SPEAR. Furthermore, the relationship of FANRPAN and CILSS with the decision-makers at the level of Ministers, Vice-Ministers and Permanent Secretaries and the involvement of seed trade associations will ensure the continued public-private partnership necessary for sustainability of the project objectives.

Table 1 below provides a brief description of SPEAR stakeholders and the roles that they need to assume for the project to be successful.

Table 1: Description of SPEAR stakeholders and their roles

A. Streamlining the Variety Release System

Activity	Stakeholders	Roles
1. Establish variety release regulations based on the procedure manual agreed upon by the region	• Policy analysts (ISU, FANRPAN CILSS, and NSA) • Government engagers (FANRPAN, CILSS, STAs) • Established influencers (AGRA, AFSTA, COMESA, SADC, ECOWAS) • National decision makers (MOA, NSA, NVRC)	• Analyze changes to current regulatory framework for regional adoption • Educate and interface • Approve and implement decisions
2. Update national variety release data management	• IT specialists (ISU, SADC, CILSS) • Technical specialist (ISU, UPOV, SADC, CILSS) • National variety release officials (NVRC and NSA)	• Develop, install and beta test software • Technical support for registration • Analyze and approve applications
3. Build capacity for variety testing	• Trainers (ISU, CG Breeders, UPOV) • Examiners and breeders (NSA, NARO, seed companies)	• Train in DUS and VCU testing • Examine and field-test candidate varieties
4. Facilitate registration of existing and new varieties	• Technical experts (ISU, NSA, SADC, CILSS) • Breeders (NARO, seed companies) • NVRC members (MOA, NSA, NARO, STA, University rep)	• Assist breeders and provide resources to register varieties • Apply for registration • Evaluate/recommend releases on a timely basis

B. Enhancement of Genetics Access and Transfer

Activity	Stakeholders	Roles
5. Develop a Genetic Access and Transfer Scheme (GATS) for each of the selected countries	• ISU/Regional/national partners (FANRPAN, CILSS, STAs, NARO) • Established influencers (AGRA, AFSTA, COMESA, SADC, ECOWAS) • National decision makers (MOA, NARO)	• Develop, review and improve preliminary designs for each country • Approve and implement scheme for each country
6. Enhance the licensing of new varieties between NAROs and seed companies 7. Improve the licensing of new material between private genetics providers and seed companies	• Variety licensing experts (ISU, seed companies, CG-MTA, NAROs) • Potential licencers/licensees (NARO, STAs) • Regional/national partners (FANRPAN, CILSS, STAs, NARO) • Established influencers (AGRA, AFSTA, COMESA, SADC, ECOWAS) • National decision makers (MOA, NARO) • Technical expertise (ISU, STA, AGRA) • Potential private licensers/licensees (local seed companies and genetics providers)	• Develop licensing policy draft • Transfer licensing principles to local seed businesses • Discuss the draft licensing policy • Educate and engage on licensing policy • Approve and implement licensing policy • Facilitate and provide resources for licensing arrangements • Test materials continuously at local level with subsequent signed licenses

The scalability of this project, given the regional/national dimension of both objectives, is related to demonstrating the successful results in the three countries of the two regions. The sustainability, however, merits analysis. The true demonstration of sustainability will become apparent after completion of the project, as varieties continue to be registered, basic seed contracts continue to be signed and fulfilled, regional varieties continue to move across national boundaries, and licenses between public-private and private-private entities are initiated. These indicators should be monitored, potential problems should be identified and alternative solutions should be proposed to ensure sustainability. The participation of farmers, seed companies, seed

authorities, and agricultural research institutions, in the National Variety Release Committees and the Genetics Access and Transfer Scheme members will be crucial in maintaining the institutional policies and regulatory environment for continued success. Ultimately, sustainability will be realized, as smallholder farmers repeatedly demand quality seed of new varieties.

In addition, other complementary funding from USAID-West Africa to ISU and CILSS allows the implementation of the harmonized agreements at a regional level. USAID-Southern Africa funding to ICRISAT and ISU also allows the Southern Africa harmonized agreements to be implemented at a regional level. In both cases, regional sustainability is to be reached through specific offices of ECOWAS and SADC, which will charge fees for the operation and maintenance of these offices.

IV. Potential Risks

There are several seed initiatives in Africa being funded by different donors. Sometimes these activities overlap or duplicate, creating confusion and impeding rapid progress. ISU and its partners are well aware and sometimes are part of these initiatives. We will strive to mitigate this operational risk by maintaining a constant and effective dialogue concerning SPEAR activities with key donor organization representatives.

The assumption that the regional seed office of SADC and the seed secretariat of CILSS receives funding for the implementation of seed policy harmonization agreements from USAID-Southern Africa and USAID-West Africa, respectively, may not materialize. This potential risk is considerably mitigated as a result of ISU's role in co-leading both USAID efforts. ISU has the ability to influence the design and implementation of the on-going Southern Africa Seed Systems project and to ensure the core funding of the SADC-RSO for FY2010, as well as, in West Africa. AGRA, who is part of the WASA effort can also be influential in the decision-making process of USAID-WA. In the case of Southern Africa, USAID is developing its five-year strategic plan for Southern Africa and is starting with a clean slate. USAID-SA has welcomed the opportunity to meet periodically with donors interested in seed systems development, more specifically BMGF and the Swiss Development Cooperation. This is a clear path to influence USAID-SA strategy on seed systems in the next five years. However, In the unlikely event that the USAID does not include seed systems support in their plan, ISU would propose a SPEAR budget modification to ensure continuity of the Regional Variety Release Scheme. In the case of West Africa, ISU also has the ability to influence the core funding for the "Seed Policy Enabling Environment" component of the USAID-funded Seed Systems Project in the ECOWAS countries. This is an on-going effort for the implementation of the ECOWAS seed agreements for the years 2010 and 2011.

SPEAR's activities will intervene in policy and high-value commercial arenas, and established interests will likely wield significant influence in both of these arenas. However, this strategic risk can be managed by engaging all of the stakeholders identified in Table 1, developing adequate mutual understanding, and identifying overlapping interests so that they align with the project's

goals. (For example, established influencers will play a critical role in bridging gaps with other interests.)

Another inherent risk to this project is that the varieties released may not reach smallholder farmers in some areas of the selected countries as a result of an insufficient number of seed companies. The issue of an insufficient number of seed companies is particularly true of the north and western areas of Zambia, the northern and southern areas of Malawi, and in critical parts of Nigeria. These areas are highly dependent on agriculture, and are home to many smallholder farmers that would benefit from the use of new improved varieties. Other initiatives, such as the efforts of AGRA, are underway to increase the capacity of existing seed companies in these countries. The further development of new seed companies will also contribute to minimize this real risk.

V. Monitoring and Evaluation

The success and lessons to be learned from SPEAR are dependent on how solid the monitoring and evaluation process is built into SPEAR's design, and how successfully it is implemented. Monitoring enables project implementers to continuously assess the extent to which the project is moving according to plan. Through periodic evaluation, necessary corrections and/or adjustments of expectations can be made.

The project will have in place a qualified monitoring and evaluation person to collect the necessary data, analyze, and provide feedback to the project director, the project partners and BMGF. A baseline analysis will provide a starting point for comparison and measurement of the indicators to help to keep the project on track.

Indicators: The indicators to measure the project performance are associated with each of the two major objectives. The indicators are: (a) appropriate regulations for variety release and basic seed policies implemented; (b) appropriate regulations and policies implemented at departmental levels; (c) regulations supported by back-up computer services online and functional for the variety release system; (d) proper training provided to staff to take on the new task of the regional variety release system incorporation; (e) proper publicity informing farmers of availability and access to new varieties; (f) change in number of seed varieties released; (g) change in number of basic seed contracts; and (h) change in number of licenses issued. These indicators may be further revised at a proposed inception workshop with input from key stakeholders.

Milestones: Specific milestones for each activity have been developed and are outlined in Appendix B. Twelve milestones have been developed for the objective of "Streamlining the Variety Release System" and six milestones for the objective of "Enhancement of Genetics Access and Transfer." These milestones are to be monitored for timeliness and completeness by monitoring and evaluating staff. Milestones will be reviewed and modified as needed in the light of progress on an annual basis, based on stakeholder feedback and monitoring reports.

The milestones selected will be monitored through formal surveys, such as, service delivery surveys, rapid appraisal methods, and participatory methods that will ensure active involvement in decision-making for those involved in the project and generate a sense of ownership in the M&E results and recommendations.

Although outcomes will be reached, it is important to recognize that other factors may have contributed to a desired outcome. SPEAR proposes to use the different kind of surveys and rapid appraisal methods to identify other causes for the outcome achieved. This information will be valuable to make corrections or not of similar activities in this or other projects.

Stakeholder Engagement: As described in Table 1, key stakeholders have been identified for each project activity. These stakeholders will be assigned specific roles and will be engaged in a systematic way. The project management, the project partners, and the monitoring staff will:

- Plan activities with key stakeholders in an inception workshop at the beginning of Year 1, providing them with genuine opportunities to influence program decisions. This includes discussing project priorities and identifying overlapping project goals to help strengthen relevance and ownership. In subsequent years, major planning will also be conducted with stakeholders that may lead to a refinement of the project design.
- Communicate regularly with key stakeholders through two-way methodologies that are accessible and convenient for stakeholders. A variety of feedback systems will be used to ensure stakeholder involvement and feedback including teleconferences, checklist evaluation forms, and monitoring and evaluation reports. Feedback will be used to monitor the level of engagement.
- Deliberate and reflect on project progress-to-date and redesign future activities with key stakeholders. The feedback results will be reported to stakeholders, to keep them informed, and to improve deliberations and build legitimacy.

Quarterly technical and financial reports will indicate progress being made towards achieving project objectives. These reports will be made available in a timely manner to the BMGF. The implementing institutions are well-versed with project reporting requirements, and Iowa State University and both FANRPAN and CILSS have an excellent record of timely and accurate reporting on projects. Iowa State University, FANRPAN and CILSS also possess well-established routine annual internal and external audits of all funded projects.

VI. Organizational Capacity and Management Plan

The mission of the Seed Science Center at Iowa State University is to improve production, quality assurance, marketing, utilization, and the regulatory environment for seed through research, testing, teaching, outreach, and global seed programs. The vision established under the Center's strategic plan is that the Seed Science Center at Iowa State University will be a global center of

excellence in seed science, seed technology, and seed systems. The Center's motto is "Quality Seeds to Feed the World." This belief is reflected in the Global Seed Program that shares the conviction that *all* farmers around the world should have access to high-quality seed of the best genetics available. This is one of the proven ways to increase farmers' yields, incomes, and overall wellbeing. The Global Seed Program believes that by educating farmers about the value of the genetic, physiological, physical, and phytosanitary qualities embodied in seed, the demand for high-quality seed will increase. In turn, this understanding will lead to higher demand for quality seed, will enhance seed companies in developing nations, and will result in an increased and a nutritionally improved food supply.

The Seed Science Center at Iowa State University is recognized nationally and internationally for its expertise in seed research, education, and seed systems development. Conducting programs in 54 countries in the last 10 years, the Center houses the largest public seed-testing laboratory in the world administering tests on more than 300 species of seeds. The Center is a USDA-designated authority for accreditation of phytosanitary field inspection and seed health testing, and offers the only distance education Seed Technology and Business Masters Program in the world. Center faculty and staff are experts in a wide variety of areas including seed pathology, seed production and physiology, seed drying, seed conditioning, seed storage, seed marketing, seed policies and regulations, and seed systems development. For more information about the Center, visit http://www.seeds.iastate.edu.

Internationally, Iowa State University has been the leader in the realm of policy reform, designing and facilitating regional projects in Africa to harmonize seed policies and regulations in the SADC and ECOWAS regions. This seed policy harmonization work has translated into common seed certification standards, common variety evaluation and release procedures, draft PVP laws in several countries (two approved), and phytosanitary measures. A similar project was carried out in East Central Africa through the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA). This wealth of experience, particularly in Africa where the current project proposal is targeted, is unmatched. The Center's highly experienced staff members have spent more than 10 years in the region where this project is being directed. ISU has established a long-lasting rapport with the national governments' ministries of agriculture and the private seed sector that in many ways guarantees the success of this project. The following capacity statement breaks down the Center's global activities and reach.

WEST AFRICA: 17 Countries Benin Burkina Faso Cote d'Ivoire Capa Verde Chad Gambia Ghana Guinea Bissau	▪ Regional Variety Release Agreement ▪ Common Seed Certification Standards ▪ Capacity building in accreditation ▪ Regional Quarantine Pest List (in progress)

Guinea Conakry Liberia Mali Mauritania Níger Nigeria Senegal Sierra Leone Togo	▪ Procedures Manuals of Variety Release, Seed Certification and Accreditation, Seed Import/Export
SADC: 14 Countries Angola Botswana Democratic Republic of Congo Lesotho Malawi Mauritius Mozambique Namibia South Africa Swaziland Tanzania Zambia Zimbabwe	▪ Regional Variety Release Agreement ▪ Common Seed Certification Standards ▪ Capacity building in accreditation ▪ Regional Quarantine Pest List ▪ Procedures Manuals of Variety Release, Seed Certification and Accreditation, Seed Import/Export ▪ Quality Manual Guidelines for Seed Company ▪ Quality Assurance for Seed Testing Laboratories ▪ Protocol for the Protection of New Varieties of Plants (Plant Breeders' Rights) in SADC
EAST AFRICA: 3 countries Uganda Kenya Tanzania	▪ Common Seed Certification Standards ▪ Capacity building in accreditation ▪ Regional Quarantine Pest List
OTHER AFRICAN COUNTRIES Southern Sudan Ethiopia	▪ Seed Law and Plant Variety Protection Law

FANRPAN's mission is to promote effective food, agriculture, and natural resources (FANR) policies by:

(1) Facilitating linkages and partnerships between government and civil society,
(2) Building the capacity for policy analysis and policy dialog in southern Africa, and supporting demand-driven policy research and analysis.

FANRPAN's vision is a food-secure southern Africa free from hunger and poverty.

FANRPAN is a regional policy research and government engagement network whose operations are informed by major regional policy frameworks and processes in southern Africa. These are currently the SADC's Regional Indicative Strategic Development Plan (RISDP), the SADC

Heads of State Dar es Salaam Declaration, the Comprehensive Africa Agricultural Development Programme (CAADP) of the New Partnership for Agricultural Development (NEPAD), and the Common Market for Eastern and Southern Africa (COMESA) Agricultural Plan.

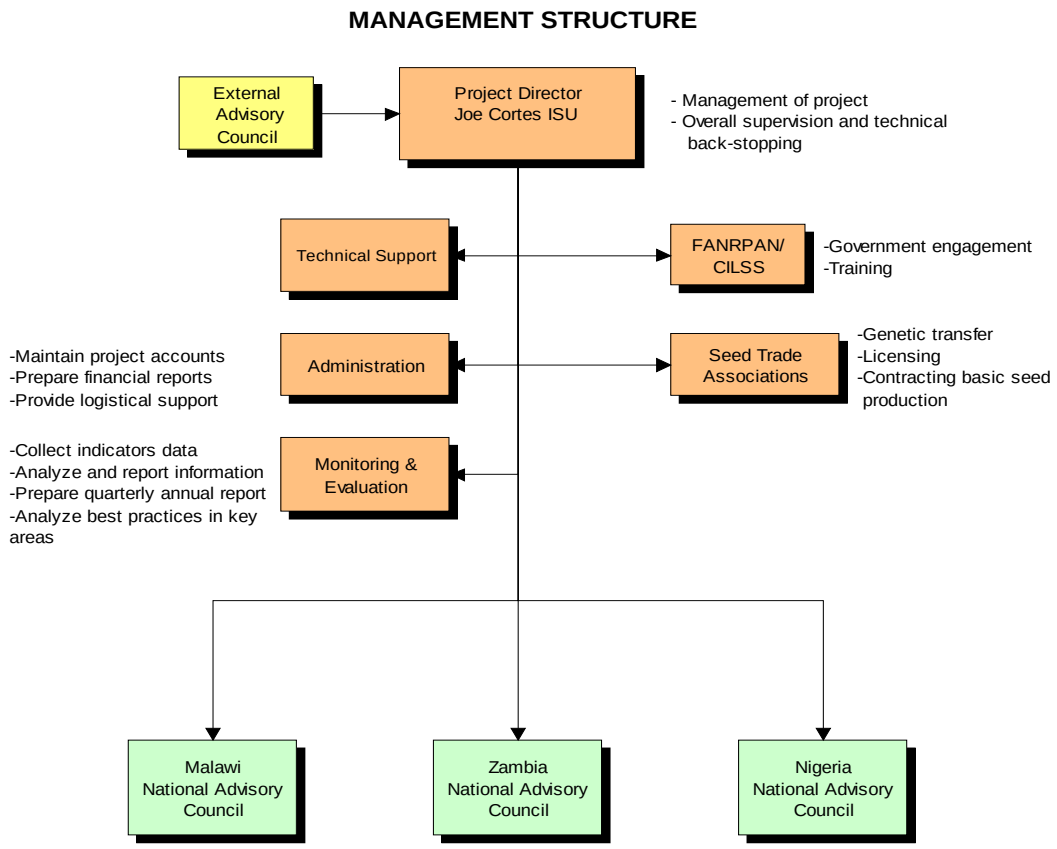
The FANRPAN network's strength lies in its national nodes. FANRPAN is currently operating in 13 SADC countries and operates through an inter-sectoral network platform in each country designated as a Country Node. The node is made up of the following stakeholders: government ministries responsible for FANR; policy research institutions such as relevant university departments; private sector national umbrella organizations that deal with FANR; national farmers' organizations; and civil society organizations. Each Country Node is served by a hosting institution which provides a secretariat and coordination services. The node-hosting institution is supported by a steering committee selected for their following abilities: to engage a wide range of stakeholders, including good relations with government; to convene high-level policy engagements with all key stakeholders; to maintain good communications with stakeholders and the rest of FANRPAN; and the capacity to secure and effectively manage grants and contracts on behalf of FANRPAN.

FANRPAN has been reinforcing the scale and scope of its networks to include "non-traditional" stakeholders such as parliamentarians who can help increase the importance of agriculture in the region and influence the translation of FANRPAN policy recommendations into policy decisions. All the above capacities make FANRPAN an excellent regional partner to accomplish the crucial government engagement efforts of this project.

CILSS' contribution to regional integration ensues from its central role as a regional competence centre for food security, natural resource management, and combating desertification. Under the New Partnership for Africa's Development (NEPAD), ECOWAS takes the political lead in agricultural policy, and CILSS is the technical secretariat for ECOWAS.

CILSS was the regional institution responsible for the harmonization of seed policies and regulations in West Africa funded by FAO and USAID. CILSS is also a recipient of funding for the USAID-funded project of the West Africa Seed Alliance and works closely with Iowa State University in the "Enabling Environment" component of said project, specifically in the implementation phase.

The following management structure illustrates the functions and responsibilities of each of SPEAR's partner institutions—specifically Iowa State University, FANRPAN, CILSS, and the National Seed Trade Associations.



As shown in the above diagram, the Project Director will be assisted by an External Advisory Council (EAC) and National Advisory Councils from each selected country, as well as, identified partners (FANRPAN and CILSS) and collaborators (National Seed Trade Associations). The National Advisory Councils will be comprised of selected members of key stakeholder groups. The EAC will meet biannually to advise the project director on planning, setting priorities, and monitoring activities. The president of each National Advisory Council and the Program Officer from BMGF will be part of this EAC. A representative of AGRA will also be invited to conform the EAC.

Budget Narrative

I. Overview of the Budget

The budget reflects the estimated costs involved in accomplishing the activities proposed to reach desired SPEAR objectives. The specific funding request for basic seed production contracts under the National Seed Trade Associations has been allocated in year 1 with the understanding that some of these funds will roll over into subsequent years 2 and 3, based on the project advances.

The government engagement and partnering meetings listed in the budget narrative include the costs of housing and transporting participants, meeting room rental, hospitality, materials, and other incidental expenses. Training session costs include travel, lodging, meals, materials, and room rental.

II. Explanation of Cost Categories

BUDGET NARRATIVE: SPEAR		
	Year ONE	
Objective 1: Streamlining the Variety Release System		
ISU	Salaries & Benefits	$62,582
	Travel: 6 trips @$7,000/trip that includes $3,000 airfare and $200/day per diem for 20 days	$42,000
	Supplies: as needed to accommodate administrative needs and communications	$2,500
Sub-grants		
M&E Contract	Contracted services: Hire private consultant to monitor and evaluate project in Africa	$15,000
FANRPAN/ CILSS	Base award: Salaries, transportation, office rental	$41,000
	Activity 1: Work on regulatory framework that includes costs incurred for meetings with officials and seed trade association managers. This will be conducted in 3 countries @ $2,000 each	$6,000
	Activity 2: Setting up computer software and beta testing at regional seed hubs. This will be conducted in 3 countries @ $10,000 each.	$30,000
	Activity 3: II.1.3: Training meetings for government officials and breeders in order to conduct DUS and VCU trials to meet requirements of the variety release procedures manual. Three countries @ $10,000 each.	$30,000
	Activity 4: Assistance for breeders for registering applications (public and private), and National Variety Release Committee meetings. Also preparation of brochures and distributed across districts. Three countries @ $5,000 each.	$15,000
Seed Trade Associations (STA)	Activity 4: Preparation and distribution of brochures.	$5,197
	Purchase of computers, printers, software to conduct programs in three countries @ $10,000 each	$30,000

Objective 2: Enhancement of Genetics Access and Transfer		
ISU	Salaries & Benefits	$39,368
	Travel: 3 trips @$7,000/trip that includes $3,000 airfare and $200/day per diem for 20 days	$21,000
	Supplies: as needed to accommodate administrative needs and communications	$2,500
Sub-grants		
M&E Contract	Contracted services: Hire private consultant to monitor and evaluate project in Africa	$15,000
FANRPAN/ CILSS	Base award: Salaries, transportation, office rental	$41,000
	Activity 5: Interfacing with stakeholders and decision-makers to implement the GATS approach. Three countries @ $8,000 each.	$24,000
	Activity 6: Training of licensing. Three countries @ $10,000	$30,000
STA	Activity 5: Contract for seed production with GATS/NAROs to produce basic seed of the crops/varieties selected by STAs.	$38,967
	Activity 7: Transferal of licensing principles and concepts to local seed businesses and implementation of variety licensing through specific contracts between seed businesses. Meetings between genetics providers and seed businesses leading to licensing contracts.	$30,000
	TOTAL	**$524114**
	IDC*	$50,212
	Grand Total:	**$574326**
*IDC	Indirect on modified direct cost	$17,295
	Allowable indirect on Subgrants	$32,917
	IDC Total	$50,212

BUDGET NARRATIVE: SPEAR		
	Year TWO	
Objective 1: Streamlining the Variety Release System		
ISU	Salaries & Benefits	$67,550
	Travel: 4 trips @$7,000/trip that includes $3,000 airfare and $200/day per diem for 20 days	$28,000
	Supplies: as needed to accommodate administrative needs and communications	$2,500
Sub-grants		
M&E Contract	Contracted services: Hire private consultant to monitor and evaluate project in Africa	$15,000
FANRPAN/ CILSS	Base award: Salaries, transportation, office rental	$41,000
	Activity 1: Work on regulatory framework that includes costs incurred for meetings with officials and seed trade association managers.	$0
	Activity 2: Preparation and analysis of real applications of existing seed varieties. This will be conducted in 3 countries @ $4,666 each.	$14,000
	Activity 3: Training meetings for government officials and breeders in order to conduct DUS and VCU trials to meet requirements of the variety release procedures manual. Three countries @ $10,000 each.	$30,000
	Activity 4: Assistance to breeders for registering applications (public and private), and National Variety Release Committee meetings. Also preparation of brochures and distributed across districts. Three countries @ $5,000 each.	$15,000
Seed Trade Associations (STA)	Activity 4: Preparation and distribution of brochures.	$4,903
	Purchase of computers, printers, software to conduct programs in three countries	$0

Objective 2: Enhancement of Genetics Access and Transfer		
ISU	Salaries & Benefits	$34,891
	Travel: 3 trips @$7,000/trip that includes $3,000 airfare and $200/day per diem for 20 days	$21,000
	Supplies: as needed to accommodate administrative needs and communications	$2,500
Sub-grants		
M&E Contract	Contracted services: Hire private consultant to monitor and evaluate project in Africa	$15,000
FANRPAN/ CILSS	Base award: Salaries, transportation, office rental	$41,000
	Activity 5: Interfacing with stakeholders and decision-makers to promote the GATS approval.	$0
	Activity 6: Training of licensing. Three countries @ $5,000	$0
STA	Activity 5: Contract for seed production with GATS/NAROs to produce basic seed of the crops/varieties selected by STAs.	$67875
	Activity 7: Transferal of licensing principles and concepts to local seed businesses and implementation of variety licensing through specific contracts between seed businesses. Meetings between genetics providers and seed businesses leading to licensing contracts.	$0
	TOTAL	**$400,219**
	IDC*	$40,022
	Grand Total	**$440,241**
*IDC	Indirect on modified direct cost	$15,644
	Allowable indirect on Subgrants	$24378
		$40,022

BUDGET NARRATIVE: SPEAR		
	Year THREE	
Objective 1: Streamlining the Variety Release System		
ISU	Salaries & Benefits	$56,035
	Travel: 3 trips @$7,000/trip that includes $3,000 airfare and $200/day per diem for 20 days	$21,000
	Supplies: as needed to accommodate administrative needs and communications	$2,500
Sub-grants		
M&E Contract	Contracted services: hire private consultant to monitor and evaluate project in Africa	$15,000
FANRPAN/ CILSS	Base award: Salaries, transportation, office rental	$41,000
	Activity 1: Work on regulatory framework that includes costs incurred for meetings with officials and seed trade association managers.	$0
	Activity 2: Preparation and analysis of real applications of existing seed varieties. This will be conducted in 3 countries @ $12666 each.	$38,000
	Activity 3: Training meetings for government officials and breeders in order to conduct DUS and VCU trials to meet requirements of the variety release procedures manual.	$0
	Activity 4: Assistance to breeders for registering applications (public and private), and National Variety Release Committee meetings. Also preparation of brochures and distributed across districts. Three countries @ $5,000 each.	$15,000
Seed Trade Associations (STA)	Activity 4: Preparation and distribution of brochures.	$19,600
	Purchase of computers, printers, software to conduct programs in three countries	$0

Objective 2: Enhancement of Genetics Access and Transfer		
ISU	Salaries & Benefits	$35,937
	Travel: 2 trips @$7,000/trip that includes $3,000 airfare and $200/day per diem for 20 days	$14,000
	Supplies: as needed to accommodate administrative needs and communications	$2,500
Sub-grants		
M&E Contract	Contracted services: hire private consultant to monitor and evaluate project in Africa	$15,000
FANRPAN/ CILSS	Base award: Salaries, transportation, office rental	$41,000
	Activity 5: Interfacing with stakeholders and decision-makers to promote the GATS approval.	$0
	Activity 6: Training of licensing.	$0
STA	Activity 5: Contract for seed production with GATS/NAROs to produce basic seed of the crops/varieties selected by STAs.	$87,876
	Activity 7: Transferal of licensing principles and concepts to local seed businesses and implementation of variety licensing through specific contracts between seed businesses. Meetings between genetics providers and seed businesses leading to licensing contracts.	$0
	TOTAL	**$404,448**
	IDC*	$40,445
	Grand total:	**$444,893**
*IDC	Indirect on modified direct cost	$13,197
	Allowable indirect on Subgrants	$27248
	Total IDC	$40,445
	Three Year Total Summary	
Summary	Year 1	**$574,326**
	Year 2	**$440,241**
	Year 3	$444,893
	TOTAL	**$1,459,460**

APPENDIX A: Project Objectives

Objectives and Outcomes

Vision of Success:	**To increase the number of improved varieties released and available to smallholder farmers**	
Project Objective 1:	**Streamlining the Variety Release System**	
Activities	**Outputs**	**Outcomes (Short- and Long-Term)**
1. Establish variety release regulations based on the regional procedure manual 2. Update national variety release data management 3. Capacity building for variety examination 4. Promote registration and use of new varieties	• Updated national regulations for registration and release of new varieties • Software and hardware installed to manage the national variety release system • 3 officers of National Variety Release Systems trained in data management • 36 government officials and breeders from the private and public sector trained in DUS and VCU tests, of which 9 will be women • 2 meetings per year of the Variety Release Committees per country • 20% farmers informed of new varieties • National variety catalog updated yearly	• 3 years: Three fully functional national variety release systems • 3 years: At least 8 new varieties of different crops released per country

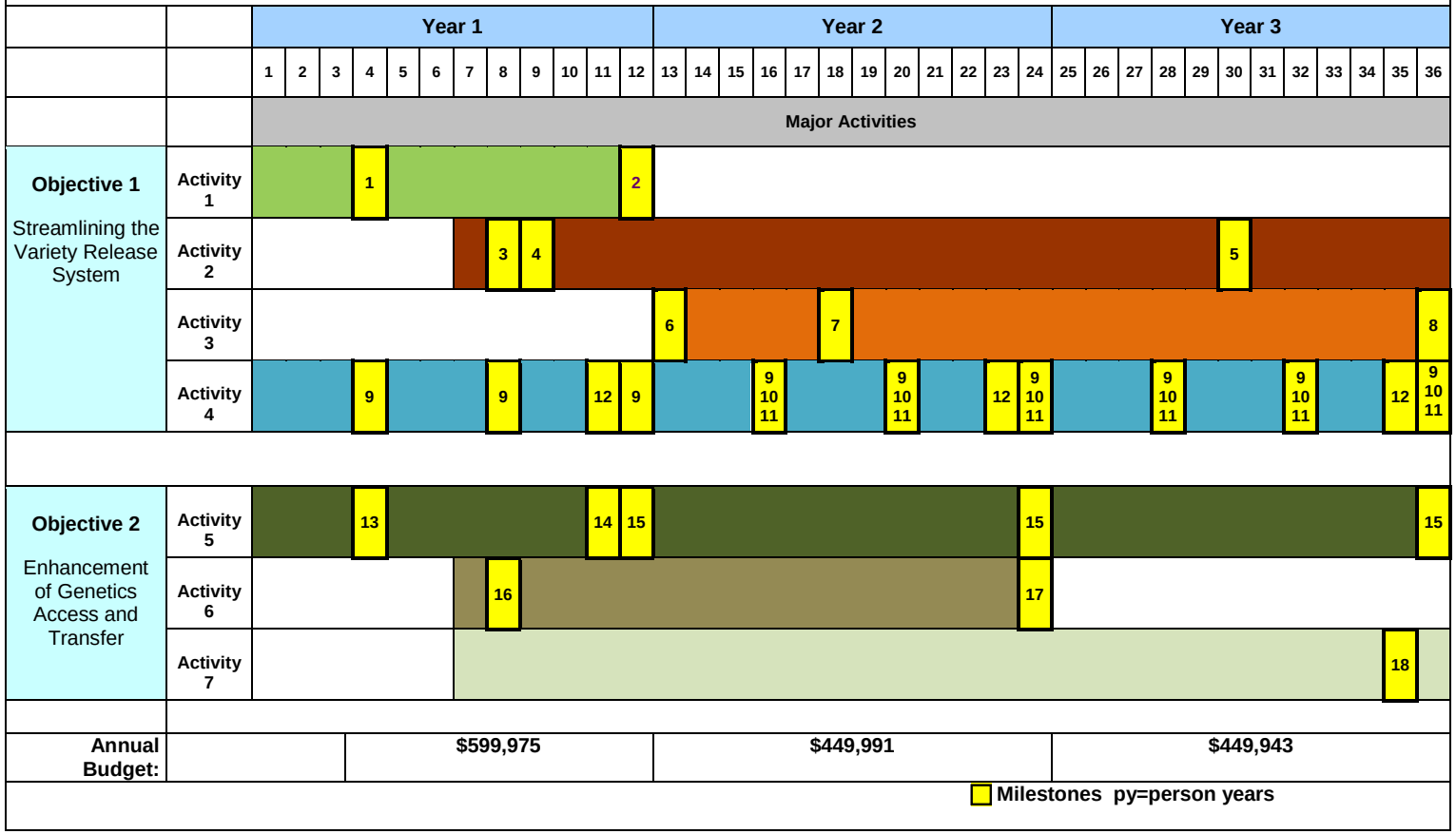
Project Objective 2:	**Enhancement of Genetics Access and Transfer**	
Activities	**Outputs**	**Outcomes (Short- and Long-Term)**
5. Develop a Genetic Access and Transfer Scheme (GATS) for each of the selected countries 6. Enhance the licensing of new varieties between NAROs and seed companies 7. Improve the licensing of new materials between private sector genetics providers and seed companies	• Genetic Access and Transfer Scheme (GATS) approved for each country • At least 6 basic seed production contracts signed per country • 40 tons of basic seed of new varieties produced under contract per country • Variety licensing policy established in NARO • 25 representatives from the public and private sector trained in licensing principles and concepts of which 10 shall be women	• 3 years: Genetic Access and Transfer scheme fully functional in all three countries • 3 years: Basic seed produced under this project available to seed companies on an equal access basis • Basic seed production allowable by seed companies • 15 new varieties licensed and available to farmers

APPENDIX B: Timeline and Milestones

Timelines and Milestones

Project Name: Seed Policy Enhancement in African Regions (SPEAR)

Vision of Success: To increase the number of improved varieties released and available to smallholder farmers



APPENDIX B: Timeline and Milestones (Continued)

Objective 1:	**Streamlining the Variety Release System**
Activity 1:	**Establish variety release regulations based on the regional procedures manual**
Milestones:	1. Completion of 3 desktop analyses of modifications in current regulatory framework 2. Modifications of regulatory frameworks approved in each of the three countries
Activity 2:	**Update national variety release data management**
Milestones:	3. IT system of variety release functional in each of the three countries 4. Variety release IT manager trained in running the database and catalog 5. National variety release IT system incorporated into regional IT system
Activity 3:	**Capacity building for variety testing**
Milestones:	6. First three workshops (1 week duration) conducted on DUS and VCU testing with stakeholders 7. Second three workshops (1 week duration) conducted on DUS and VCU testing with stakeholders 8. Public and private breeders with the capacity to prepare, conduct, evaluate, and/or examine for DUS/VCU
Activity 4:	**Facilitate the registration of existing and new varieties**
Milestones:	9. Variety release committees meetings held (two/year) in each country 10. Variety release applications for national/regional release completed following new guidelines 11. National seed authority receiving and submitting regional variety release applications 12. Completion of national variety catalog on a yearly basis

APPENDIX B: Timeline and Milestones (Continued)

Objective 2:	**Enhancement of genetics access and transfer**
Activity 5:	**Develop a genetics access and transfer scheme for each selected country**
Milestones:	13. Completed draft of a genetics access and transfer scheme for each of the three countries 14. Signed GATS scheme document in each of the three countries 15. 6 basic seed production contracts signed in each of the three countries
Activity 6:	**Enhance the licensing of new varieties between NAROs and seed companies**
Milestones:	16. Completed training of licensing principles and concepts 17. Licensing policy document signed at each NARO
Activity 7:	**Improve the licensing of new materials between private sector genetics provides and seed companies**
Milestones:	18. 5 licensing agreements signed between private sector genetics providers and seed companies per country in each of the 3 countries.

APPENDIX C: Budget Spreadsheet

Appendix C: Budget Spreadsheet

Organization Name: *IOWA STATE UNIVERSITY*
Project Title: *Seed Policy Enhancement in African Regions SPEAR*
Objective 1: *Streamlining the Variety Release System*

Budget Line Items	Year 1	Year 2	Year 3	Year 4	Year 5	Total	**Non-U.S. Grants Only** Total Costs to be spent in U.S.	NOTES
Personnel	**48414.00**	**49867.00**	**41479.00**	**0.00**	**0.00**	**139760.00**		
Team Leader/$97923 per year(.167 FTE)	16,320.00	16,810.00	17,314.00					
Technical Specialist//57,401 per year (.167 FTE)	9,567.00	9,854.00	10,149.00					
Communications Specialist/$46,764per year (.08 FTE)	3,897.00	4,014.00	4,134.00					
IT Specialist/$87,456 per year (.167 FTE)	14576.00	15014.00	7732.00					
Secretarial support/$48650 per year (.08 FTE)	4,054.00	4,175.00	2,150.00					
Fringe Benefits	**17168.00**	**17683.00**	**14556.00**	**0.00**	**0.00**	**49407.00**		
Team Leader/34.5%	5,630.00	5,799.00	5,972.00					
Technical Specialist//34.5%	3,301.00	3,400.00	3,502.00					
Communications Specialist/34.5%	1,344.00	1,385.00	1,426.00					
IT Specialist/34.5%	5029.00	5180.00	2668.00					
Secretarial support/46%	1,864.00	1,919.00	988.00					
Travel	**42,000.00**	**28,000.00**	**21,000.00**	**0.00**	**0.00**	**91,000.00**		
Trips to countries (6/4/3 @$7,000/trip)	42,000.00	28,000.00	21,000.00					

Consultants	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Description/rate						
Supplies	**2,500.00**	**2,500.00**	**2,500.00**	**0.00**	**0.00**	**7,500.00**
Office supplies	1,500.00	1,500.00	1,500.00			
Communications	1,000.00	1,000.00	1,000.00			
Contracted Services	**15,000.00**	**15,000.00**	**15,000.00**	**0.00**	**0.00**	**45,000.00**
Monitoring and Evaluation/$15,000/year	15,000.00	15,000.00	15,000.00			
Sub-grants to Others Organizations	**157197.00**	**104903.00**	**113600.00**	**0.00**	**0.00**	**375700.00**
FANRPAN/ CILSS	122,000.00	100,000.00	94,000.00			
National Seed Trade Associations (3)	35197.00	4903.00	19600.00			
Equipment	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Item/Qty						
Total Direct Costs for Objective 1	$282,279.00	$217,953.00	$208,135.00	$0.00	$0.00	$708,367.00

Appendix C: Budget Spreadsheet

Organization Name: *IOWA STATE UNIVERSITY*
Project Title: *Seed Policy Enhancement in African Regions SPEAR*
Objective 2: *Enhancement of Genetics Access and Transfer*

Budget Line Items	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Non-U.S. Grants **Only** Total Costs to be spent in U.S.	NOTES
Personnel	**29270.00**	**25942.00**	**26720.00**	**0.00**	**0.00**	**81.932.00**		
Team Leader/$97923 per year (.167 FTE)	16,320.00	16,810.00	17,314.00					
Variety Licensing Specialist/$49,000 per year (.167 FTE)	8168.00	4206.00	4332.00					
Technical Specialist/$46,764 per year (.08 FTE)	4783.00	4926.00	5074.00					
Fringe Benefits	**10098.00**	**8949.00**	**9217.00**	**0.00**	**0.00**	**28264.00**		
Team Leader/34.5%	5,630.00	5,799.00	5,972.00					
IT Specialist/34.5%	2,818.00	1,451.00	1,495.00					
Technical Specialist/34.5%	1650.00	1699.00	1750.00					
Travel	**21,000.00**	**21,000.00**	**14,000.00**	**0.00**	**0.00**	**56,000.00**		
Trips to countries (3/3/2 @$7,000)	21,000.00	21,000.00	14,000.00					
Consultants	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		

Description/rate						
Supplies	**2,500.00**	**2,500.00**	**2,500.00**	**0.00**	**0.00**	**7,500.00**
Office supplies	1,500.00	1,500.00	1,500.00			
Communications	1,000.00	1,000.00	1,000.00			
Contracted Services	**15,000.00**	**15,000.00**	**15,000.00**	**0.00**	**0.00**	**45,000.00**
Monitoring and Evaluation/$15,000/year	15,000.00	15,000.00	15,000.00			
Sub-grants to Others Organizations	**163967.00**	**108875.00**	**128876.00**	**0.00**	**0.00**	**401718.00**
FANRPAN/ CILSS	95,000.00	41,000.00	41,000.00			
National Seed Trade Associations (3)	68967.00	67875.00	87876.00			
Equipment	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Item/Qty						
Total Costs for Objective 2	241835.00	182266.00	196313.00	$0.00	$0.00	620414.00

[1] All amounts must be in US $

Appendix C: Budget Spreadsheet

Organization Name:	*IOWA STATE UNIVERSITY*	
Project Title:	*Seed Policy Enhancement in African Regions SPEAR*	
Total Requested Amount (US $)[1]:	**$1,459,460.00**	
Date:		
Indirect Cost Rate	10%	0.1

Budget Line Items	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**	**% of Total**	**Non-U.S. Grants Only** Total Costs to be spent in U.S.
Total Personnel	**77684**	**75809**	**68199**	**0**	**0**	**221692**	**15%**	
Streamlining the Variety Release System	48414	49867	41479	0	0	139760		
Enhancement of Genetics Access and Transfer	29270	25942	26720	0	0	81932		
Major Activity 3:	0	0	0	0	0	0		
Major Activity 4:	0	0	0	0	0	0		
Major Activity 5:	0	0	0	0	0	0		
Total Fringe Benefits	**27266**	**26632**	**23773**	**0**	**0**	**77671**	**5%**	
Streamlining the Variety Release System	17168	17683	14556	0	0	49407		
Enhancement of Genetics Access and Transfer	10098	8949	9217	0	0	28264		
Major Activity 3:	0	0	0	0	0	0		
Major Activity 4:	0	0	0	0	0	0		
Major Activity 5:	0	0	0	0	0	0		
Total Travel	**63,000**	**49,000**	**35,000**	**0**	**0**	**147,000**	**10%**	
Streamlining the Variety Release System	42,000	28,000	21,000	0	0	91,000		
Enhancement of Genetics Access and Transfer	21,000	21,000	14,000	0	0	56,000		
Major Activity 3:	0	0	0	0	0	0		

Major Activity 4:	0	0	0	0	0	0	
Major Activity 5:	0	0	0	0	0	0	
Total Consultants	**0**	**0**	**0**	**0**	**0**	**0**	**0%**
Streamlining the Variety Release System	0	0	0	0	0	0	
Enhancement of Genetics Access and Transfer	0	0	0	0	0	0	
Major Activity 3:	0	0	0	0	0	0	
Major Activity 4:	0	0	0	0	0	0	
Major Activity 5:	0	0	0	0	0	0	
Supplies	**5,000**	**5,000**	**5,000**	**0**	**0**	**15,000**	**1%**
Streamlining the Variety Release System	2,500	2,500	2,500	0	0	7,500	
Enhancement of Genetics Access and Transfer	2,500	2,500	2,500	0	0	7,500	
Major Activity 3:	0	0	0	0	0	0	
Major Activity 4:	0	0	0	0	0	0	
Major Activity 5:	0	0	0	0	0	0	
Subtotal of Modified Direct Costs	172950	156441	131972	0	0	461363	
Indirect Costs on Modified Direct Costs	17295	15644	13197	0	0	46136	**8%**
Subtotal of Modified Direct Costs and Indirect Costs	**190245**	**172085**	**145169**	**0**	**0**	**507499**	
Total Contracted Services	**30,000**	**30,000**	**30,000**	**0**	**0**	**90,000**	**6%**
Streamlining the Variety Release System	15,000	15,000	15,000	0	0	45,000	
Enhancement of Genetics Access and Transfer	15,000	15,000	15,000	0	0	45,000	
Major Activity 3:	0	0	0	0	0	0	
Major Activity 4:	0	0	0	0	0	0	
Major Activity 5:	0	0	0	0	0	0	
Total Sub-grants to Others Organizations	**321164**	**213778**	**242476**	**0**	**0**	**777418**	**52%**

Streamlining the Variety Release System	157197	104903	113600	0	0	375700	
Enhancement of Genetics Access and Transfer	163967	108875	128876	0	0	401718	
Major Activity 3:	0	0	0	0	0	0	
Major Activity 4:	0	0	0	0	0	0	
Major Activity 5:	0	0	0	0	0	0	
Subtotal of Sub-grants/contracts	351164	243778	272476	0	0	867418	
Allowable Indirect Costs on Sub-grants/contracts [2, 3]	32917	24378	27248			28,950	**2%**
Subtotal of Sub-grants/contracts and Allowable Indirect Costs	**384081**	**268156**	**299724**	**0**	**0**	**896368**	
Total Equipment	**0**	**0**	**0**	**0**	**0**	**0**	**0%**
Streamlining the Variety Release System	0	0	0	0	0	0	
Enhancement of Genetics Access and Transfer	0	0	0	0	0	0	
Major Activity 3:	0	0	0	0	0	0	
Major Activity 4:	0	0	0	0	0	0	
Major Activity 5:	0	0	0	0	0	0	
Total Direct Costs	524114	400219	404448	0	0	1,328,781	**90%**
Total Indirect Costs[2,3]	50212	40022	40445	0	0	**130,679**	**10%**
Grand Total Costs	**574326**	**440241**	**444893**	**0**	**0**	**1,459,460**	**100%**

[1] All amounts must be in US $
[2] Indirect rates are only applicable to the first $100,000 for sub-grants and the sub-contract (see narrative) and will remain with ISU. The sub-grant amounts include both the direct and indirect costs (if necessary) for the sub-grantees.

[3] Indirect allocation is not allowed on equipment costs

APPENDIX D: Financial and Tax information

Iowa State University Tax Exempt Letter (Below):
For an electronic version of this Iowa State University tax exempt letter from the IRS visit:
http://www.ospa.iastate.edu/proposal/docs/Tax-Exempt.pdf

Internal Revenue Service

District
Director

Department of the Treasury

Person to Contact: EO:TPA

Telephone Number: 1-800-829-1040
312-435-1040

Refer Reply to: Telephone Inquiry

Date: May 12, 1994

Iowa State University A Subdivision
Of The State Of Iowa
125 Beardshear Hall
Ames, IA 50011

RE: EXEMPT STATUS
EIN: 42-6004224

This is in response to the letter, dated May 11, 1994, regarding your status as an organization exempt from Federal income tax.

Our records indicate that a ruling letter was issued in February 1978, granting your organization an exemption from Federal income tax under the provisions of Section 501(c)(3) of the Internal Revenue Code of 1954. Our records also indicate that your organization is not a private foundation but one that is described in Section 509(a)(1) & 170(b)(1)(A)(vi) of the Internal Revenue Code.

Contributions made to you are deductible by donors in computing their taxable income in the manner and to the extent provided in Section 170 of the Internal Revenue Code.

If your gross receipts each year are normally $25,000 or more, you are required to file Form 990, Return of Organizations Exempt from Income tax by the fifteenth day of the fifth month after the end of your annual accounting period.

You are not required to file Federal income tax returns unless you are subject to the tax on unrelated business income under Section 511 of the code. If you are subject to this tax, you must file an income tax return on F-990-T.

If any questions arises with respect to your status for Federal income tax purposes, you may use this letter as evidence of your exemption.

This is an advisory letter.

Sincerely yours,

Marilyn W. Day

Marilyn W. Day
District Director

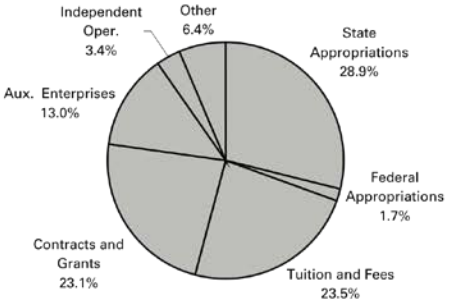
Iowa State University Revenues by Source 2007-08.
For a full electronic version of the Iowa State University Financial Report (fact book) visit:
http://www.ir.iastate.edu/FB09/finfac.html

IOWA STATE UNIVERSITY *Fact Book 2008-2009*

Revenues by Source (in thousands)

Fiscal Year

2007-2008



	—2003-2004—		—2004-2005—		—2005-2006—		—2006-2007—		—2007-2008—	
	DOLLARS	%	DOLLARS	%	DOLLARS	%	DOLLARS	%	DOLLARS	%
Revenues										
State Appropriations	236,709	29.4%	236,156	28.5%	245,570	28.5%	250,566	27.8%	275,861	28.9%
Federal Appropriations	11,732	1.5%	12,446	1.5%	14,136	1.6%	9,511	1.1%	15,821	1.7%
Tuition and Fees	187,516	23.3%	193,547	23.4%	198,719	23.1%	209,081	23.2%	224,455	23.5%
Contracts and Grants	189,324	23.5%	197,838	23.9%	204,467	23.7%	212,269	23.5%	220,846	23.1%
Auxiliary Enterprises[1]	104,140	12.9%	106,093	12.8%	109,937	12.8%	116,583	12.9%	124,153	13.0%
Independent Operations[2]	27,807	3.5%	29,075	3.5%	31,764	3.7%	30,773	3.4%	32,511	3.4%
Other[3]	47,953	6.0%	52,767	6.4%	56,352	6.6%	74,131	8.2%	61,413	6.4%
Total	**$805,181**		**$827,922**		**$860,945**		**$902,914**		**$955,060**	

[1] Auxiliary Enterprises: activities that exist to furnish goods and services to students and staff, essentially self-supporting, e.g., Iowa State Center, Residence System, University Bookstore.
[2] Independent Operations: operations that are independent of but may enhance the mission of the university: Ames Laboratory.
[3] Other: includes miscellaneous revenue, e.g., sales of educational activities, interest income from investments, sales of equipment.

113

Office of Institutional Research (Source: Office of Controller)

APPENDIX E: Biographical Information

Name: Schuknecht, Suzanne M.
Gender: Female
Project Role: Institutional Official
Positions Held: Manager Pre-Award Services, Office of Sponsored Programs Accounting, Iowa State University,

Position Responsibilities:

Provides budget assistance and sponsor guideline interpretation to faculty and staff preparing grant applications for external funding consideration. Reviews and submits proposals that require electronic submission through systems such as Grants.gov, FastLane, and eRA Commons. Works with the sponsor to resolve any issues before an award is made. Serves as the ISU liaison for Community of Science (COS), providing assistance to faculty and staff that are interested in utilizing the services offered by COS. Leads the Proposal Team to offer customer service and training opportunities to the ISU community for pre-award services. Serves as Authorized Signatory for all pre-award services.

For more information about Suzanne Schuknecht or the ISU Office of Sponsored Programs Accounting, visit: http://www.ospa.iastate.edu/contact/ and http://www.ospa.iastate.edu/ respectively.

Name: Cortes, Joseph E.
Gender: Male
Project Role: Project Director **(**Team Leader)
Positions Held:
1991- Present: Global Seed Program Leader, Seed Science Center, Iowa State University

Position Responsibilities:

Harmonization of Seed Policies and Regulations in Andean Pact (Bolivia, Colombia, Ecuador, Peru, and Venezuela). 2003

Harmonization of Seed Phytosanitary Regulations in Asia-Pacific (India, Indonesia, Philippines, Thailand, and Vietnam). 2003

Harmonization of Seed Policies and Regulations in Southern America (Argentina, Bolivia, Brazil, Chile, Paraguay, Uruguay). 1999-2003

Harmonization of Seed Policies and Regulations in East Central Africa (Kenya, Tanzania, Uganda). 2000-2001.

Development Seed Industry in Nicaragua (Technical Assistance). 1998-2001

Development of Seed Industry in Malawi, Mozambique and Zambia (evaluation). 2000

Development of Seed Trade Association of Kenya (design and implementation), 1999

Harmonization of Seed Policies and Regulations in Central America (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama). 1998-99

Development of Seed Industry in Peru (design and Implementation), 1989-1992

Education:

PhD, 1987, Seed Technology, Mississippi State University
M.Sc studies, 1979, Post-harvest technology, University of Campinas, Brazil
B.S., 1973, Agricultural Engineering, National University, Colombia

Representative Publications:

No

Key Staff:

Name: Harries, Adelaida
Gender: Female
Project Role: Technical Specialist
Positions Held:

2004-present: Scientist, Seed Science Center, Biosafety Institute for Genetically Modified Agricultural Products BIGMAP, Iowa Sate University

Position Responsibilities:

Program Assistant, Southern African/Iowa State University Project for harmonization of seed policies and regulations

Program Assistant, West Africa/Iowa State University Project for harmonization of seed policies and regulations

Development of process management manuals applied to seed and biosafety. Manuals include:

Quality Manual Guidelines for a Seed Company, ISU, 2007.

Procedure Manual for Regional Variety Registration in the Regional Catalogue for Crop Species and Varieties in West Africa ECOWAS, ISU, 2007.

Procedure Manual for Regional Variety Registration in the SADC Common Variety Catalogue, ISU, 2006.

Procedure Manual for Phytosanitary Accreditation for Seed Export, ISU, 2005.

Seed Import/ Export Procedures Manual for Government Agencies, ISU, 2005.

Procedure Manual for Seed Certification/ Accreditation for SADC Region, ISU, 2005.

Process Management Manual to Assess the Safety of Food/Feed Derived from Biotechnology Plants, ISU, 2008.

Process Management Manual for Release into the Environment of Genetically Modified Agricultural Organisms, ISU, 2006.

2002-2004: Visiting Scientist, Seed Science Center/BIGMAP, Iowa State University

Position Responsibilities:

Program assistant for the International Seed Program in seed policies and regulations for the Seed Science Center, Iowa State University

Research of worldwide biosafety regulations/guidelines for BIGMAP-ISU

1989-2002: President of the National Seed Institute (INASE) Ministry of Agriculture, Argentina

Position responsibilities:
Responsible for seed certification, plant breeder's rights, seed testing lab, variety evaluation and registration, molecular markers laboratory, and the release of genetically modified organisms, including the development of biotechnology policy and regulations of Argentina.

Education:

B.Sc. 1978, Agronomist, Moron University, Argentina

Representative Publications:
No

Name: Shyy, Yuh Yuan
Gender: Male
Project Role: IT Specialist
Positions Held:

1999 - Present: Scientist I, Seed Science Center, Iowa State University

Position Responsibilities:
Information Technology management for ISU Seed Testing Service, automation and sensing development, risk assessment support and IT management for the Biosafety Institute for Genetically Modified Agricultural Products (BIGMAP)

1994 - 1999: Associate Scientist, Seed Science Center, Iowa State University

Position Responsibilities:
Information Technology management for ISU Seed Testing Service, automation and sensing development, and risk assessment support and IT management for the Biosafety Institute for Genetically Modified Agricultural Products (BIGMAP)

Education:

PhD, 1984, Agricultural Engineering, Iowa State University, Ames, Iowa;
MS, 1981, Agricultural Engineering, Iowa State University, Ames, Iowa; and
B.Sc., 1975, Agricultural Engineering, National Taiwan University, Taipei, Taiwan

Representative Publications:

Wolt, J.D., Y-Y. Shyy, P. Christensen, K.S. Dormin, and M. Misra. 2005. "Quantitative Exposure Assessment for Confinement of Maize Biogenic Systems," *Environmental Biosafety Research*, 3:183-196. Also at http://www.edpsciences.org/10.1051/ebr:2005004.

Misra, M., B. Koerner, and Y. Shyy. 1993. "Ultrasound and Computer Vision Technology for Determining Seed Quality," *Seed Research*. Indian Society of Seed Technology, Sp. Vol. 2: 809-817.

M. Misra, Y, Shyy, L. Baudet, S.J. Marley. 1991. "Conveyors for Bulk Handling of Seed Soybeans," 1991, *Transactions of the ASAE*, 7(6): 735-740.

Name: Hendrickson, Regina L.
Gender: Female
Project Role: Communications Specialist
Positions Held:

2008 – Present: Communications Specialist III, Seed Science Center, Biosafety Institute for Genetically Modified Agricultural Products (BIGMAP) and the Food, Feed, and Fuel Initiative: Iowa, Iowa State University

Position Responsibilities:
Writing, designing, and production of publications and marketing materials including brochures, tradeshow displays, press releases, electronic newsletters,

annual reports, and presentations; creation and maintenance of center websites; assisting with organization of symposia and workshops

2006-2008: Communications Specialist III, Seed Science Center, Institute for Food Safety & Security (IFSS), and the Biosafety Institute for Genetically Modified Agricultural Products (BIGMAP), Iowa State University

Position Responsibilities:
Writing, designing, and production of publications and marketing materials including brochures, tradeshow displays, press releases, electronic newsletters, annual reports, and presentations; creation and maintenance of center websites; assisting with organization of symposia and workshops

1999 - 2005: Communications Specialist III**,** NASA Food Technology Commercial Space Center, Iowa State University

Position Responsibilities:
Creation and maintenance of center Internet site; production of electronic newsletters and annual reports for dissemination to NASA Headquarters; development of marketing materials including press releases, tradeshow displays, etc.; creation of center logos and trademark; creation and facilitating educational and outreach activities and symposiums

1994 – 2000: Editorial Assistant II, Meat Export Research Center (MERC), Iowa State University

Position Responsibilities:
Development and maintenance of Internet sites, desktop publishing and graphics duties for monthly print newsletter, writing and proofreading center in-house publications

Education:
B.S., 1989, Agricultural Journalism, Iowa State University, Ames, Iowa

Representative Publications:
No peer-reviewed publications

Name: Sandve, Connie R.
Gender: Female
Project Role: Secretarial Support

Positions Held:
1985 - Present: Secretary/Administrative Assistant, Seed Science Center, Biosafety Institute for Genetically Modified Agricultural Products, BIGMAP

Position Responsibilities:
Responsible for managing the financial aspects of all funded projects. Process paperwork for all department purchases. Approve and process all personnel actions. Purchase airline tickets and process travel expenses.

Education:

Attended 1 year AIB College of Business, Des Moines, Iowa
25 years on-the-job training

Representative Publications:

No peer-reviewed publications

Appendix F: Citations

References

1. Chitedze Agricultural Research Station, Seed Technology Unit. 2002. *National Seed Compendium for Malawi.* Lilongwe, Malawi.
2. FANRPAN. 2009. *About FANRPAN*. Retrieved August 5, 2009, http://www.fanrpan.org/about/.
3. Langyintuo, A., W. Mwangi, A. Diallo, J. Mac Robert, J. Dixon, and M. Banziger. October, 2008. *An Analysis of the Bottlenecks Affecting the Production and Deployment of Maize Seed in Eastern and Southern Africa.* CIMMYT-Harare
4. Mommoh, Abubakar. 2008. Nigeria: Zamfara Seed Farm to Boost Farming. Daily Trust. September 22, 2008.
5. SADC Secretariat Gaborone, Botswana. 2008. *Technical Agreements on Harmonization of Seed Regulations in the SADC Region*. SADC. pp. 51.
6. Seed and Plant Genetic Resources Services (AGPS). 2002. *Seed Production and Improvement: Assessment for Sub-Saharan Africa.* FAO, Rome, Italy.
7. SeedQuest. 2009. IITA Researchers Present Blueprint on Doubling Maize Production in Nigeria. July 27, 2009.

I. Summary Information

Grant Information

Project Name	**Seed Policy Enhancement in African Regions (SPEAR)**		
Organization Name	IOWA STATE UNIVERSITY		
Grant ID#	OPPGD1316-SPEAR	Foundation Program Officer	Yilma Kebede
Date Grant Awarded	*May 21st, 2010*	Project End Date	*April 30th, 2013*
Grant Amount	*In U.S. dollars* $1,459,460.00	Project Duration	36 months
Report Period from	*May 21st, 2010*	to	*May 31st, 2013 (FINAL REPORT)*
Report due	*July 31st, 2013*		
Has this project been granted a no-cost extension?		*No*	

Principal Investigator/Project Director

Prefix	Dr.	Email Address:	jcortes@iastate.edu
Surname	Cortes	Phone	515-294-5363
First Name	Joseph	Fax	515-294-2014
Suffix		Web Site	www.seeds.iastate.edu
Title	Global Seed Program Leader		
Mailing Address	162 Seed Science Center Ames, Iowa 50011-3228		
Report Prepared by	Joseph Cortes	Date Submitted:	November /13 (authorized by Dr. Kebede)
Phone	515-294-5363		
Email	jcortes@iastate.edu		

II. Project Progress and Results

Table 1: Level of achievements in Streamlining the Variety Release Systems

OBJECTIVE 1: Streamlining the variety release system				
ACTIVITY	**OUTPUTS**			
	Malawi	**Nigeria**	**Zambia**	**Combined**
1. Establish variety release regulations based on the regional (ECOWAS/SADC) procedure manual	• Procedure manual completed and disseminated	• Procedure manual completed and disseminated	• Procedure manual completed and disseminated	• Three (3) VR procedure manuals based on regional harmonization guidelines produced
2. Update the National Variety Release data management system	• NVR data management system is functional, with adapted data management software • Six (6) IT experts trained • Variety release list updated once	• NVR data management system is functional, with adapted data management software • Six (6) IT experts trained • Variety release list updated twice • Over 300 copies of variety release catalogue printed & distributed, plus 250 CDs	• NVR data management system is functional, with adapted data management software • 20 officers trained in data management • Variety release list updated twice	• Three (3) national functional NVR data management systems • 32 IT and seed officers trained in NVR data management • Variety release lists updated at least twice in each country and distributed
3. Build capacity for variety examination	• 65 people from public and private sectors trained in DUS/VCU • Established a crop field site to facilitate learning	• 45 people from public and private sectors trained in DUS/VCU • Established a crop field site to facilitate learning	• 123 people from public and private sectors trained in DUS/VCU • Established a crop field site to facilitate learning	• 233 seed regulators and breeders from government and the private sector trained in DUS/VCU • Three (3) crop field sites established to facilitate learning
4. Facilitate the registration of existing and new varieties	• Three (3) VRC meetings were held under ATCC • Eight (8) new varieties were registered	• Two (2) VRC meetings held • 38 new varieties were registered	• Five (5) VRC meetings held • 41 new varieties were registered	• Ten (10) VRC meetings were conducted • 87 new varieties were registered.

Table 2: Summary of achievements in Enhancing Genetic Access and Transfer

Objective 2: Enhancement of genetic access and transfer				
ACTIVITIES	**OUTPUTS**			
	Malawi	**Nigeria**	**Zambia**	**Combined**
5. Develop a Genetic Access Transfer Scheme (GATS)	• Produced a report on GATS related issues and recommendations • 24 people from public and private sector trained in GATS	• GATS was produced and approved • Licensing policy was developed and approved and is being implemented • 79 people trained on licensing	• GATS was produced and approved • Template for institutional licensing were developed under GATS • 50 people trained on licensing	• Two (2) GATS approved • One (1) licensing policy and one (1) template for institutional licensing developed • 153 people trained on licensing
6. Enhance the licensing of new varieties between NAROs and seed companies	• No contracts have been signed but 11 seed companies expressed interest in obtaining licenses from NARO	• Ten (10) Seed Companies have entered into agreement with Public Breeders (from 4 NARIs) for a total of 13,830kg Breeder seeds. • Eighty seven (87) contracts involving 10 Seed Companies have been signed regarding 17crop varieties	• Eight (8) seed production licences were signed under GATS in 2013	• Eighteen (18) seed companies have signed a combined total of 95 licensing contracts
7. Improve the licensing of new varieties between the private sector genetics	• Linkages between the private sector have been established through meetings	• Linkages between the private sector have been established	• Linkages between the private sector have been established	• Linkages have been established but no contracts between private sector have been signed yet

Progress Narrative

General Progress: Table 1 shows that all three countries achieved virtually all planned activities and associated outcomes. Each country was able to streamlines its variety release system to that of its respective regional seed protocol. This was achieved through the development of Variety Release Procedure Manuals, which were approved at the appropriate levels and disseminated to key stakeholder groups in each country. Streamlining was further achieved through building the capacity of government seed officers and breeders from both the private and public sectors to use DUS/VCU, a total of 233 people. In order to facilitate the effective information management of varieties released, a total of 32 IT personnel and government officers were trained in database management using particular software that was developed and supplied by ISU. The data management system was adapted to fit individual country needs. Their training was supported by the establishment and use of fields for selected crops. The third and important part of streamlining resided in the implementation of the new variety release system to register new varieties through Variety Release Committees, which, put together, met ten (10) times and released a total of 87 varieties. The variety release lists were updated at least once in each country. They were made available to potential users in the form of soft copies, printed copies (in the case of Nigeria), and CDs. SPEAR Nigeria captured the memory of the project by three catalogues, the Genetic Access Transfer Scheme (GATS), the Licensing Policy, and the Procedures Manual for Variety Release.

Table 2 shows that all the three countries conducted studies to understand the GATS-related needs in their respective countries, as well as, the training of breeders, seed companies and seed regulators on licensing. Altogether 153 people were trained on licensing. Two of the three (67 %) countries – Nigeria and Zambia – developed and had their GATS approved by the respective responsible authorities. SPEAR Nigeria went further to develop and implement a Licensing Policy while SPEAR Zambia developed a licensing template. This illustrates how policy and legal procedure processes (contextual differences) in the two countries shaped some of the outputs. Malawi was in the process of finalizing the development of GATS by the time that the project was concluded and evaluated. SPEAR Nigeria had facilitated the signing of 87 contracts involving 10 seed companies and four (4) NARIs. The seed quantities contracted amounted to 13.8 tons of mainly breeder seed. In Zambia, 8 licensing contracts were signed but none in Malawi. No licensing contracts were signed between private sector breeders and commercial producers because it was determined that this should be a two-party activity only. So, while levels of achievement under the first object are materially the same in all countries, they vary under the second objective with Nigeria and Zambia having accomplished most milestones followed by Malawi.

Below, achievements of the project are synthesized using a logic that is different from but augments the two planned objectives. Achievements are analyzed according to capacity development, policy development, and policy implementation. The following conclusions can be made:

- **Capacity building:** Achieved 100 % of the capacity building in DUS/VCU, licensing and associated data management. However, the capacity building in some cases was conducted after the planned dates. This was partly because of initial challenges such as timely submission of reports and transfer of funds;

- **Policy development**: Achieved 100 % policy development in relation to variety release manual; and nearly 100 %[1] in relation to GATS and licensing mechanisms development. The delay in the finalization of GATS and associated instruments is largely attributable to additional activities such as the GATS study, and the lengthy approval processes;
- **Policy implementation:** Achieved 100 % in terms of overall numbers of varieties released and 67 % (two of the three countries) in relation to signed licensing contracts. The delays in the completion and approval of GATS left insufficient time for implementation in one country. The actual number of signed contracts in the two countries far exceeded the planned target; and,

Women participation in the project ranged from country to country, with the highest proportion of women participation occurring in Zambia (ranging from 17 % to 34 %). In Malawi women participation ranged from 12 % to 25 %; while in Nigeria it ranged from none (0 %) in the NAC and National Commission to 18 % in the DUS and VCU training workshops. The relatively low levels of women participation was attributed to low female enrolment in agricultural training.

Sustainability: The Variety Release Streamlining component has been completely established in all three countries with the hardware needs, the software developed and installed, the IT staff taught on its' usage, the breeders trained in the DUS/VCU requirements, and the variety release committees meeting and releasing new varieties, although Malawi has yet to establish a totally independent variety release committee. In the Genetics Access and Transfer component, the GATS policy has been developed and approved, licensing training conducted, and contracts signed between private and public sector in Nigeria and Zambia with Malawi lagging. With these two facts in mind, ISU would like to have a no-cost extension particularly to follow-up on the licensing agreements signed and next year's contracts to ensure sustainability and at the same time, assist Malawi in meeting all of SPEAR's milestones.

Scalability: Considering the accomplishments of SPEAR, the continuation of SPEAR can resolve the breeder/basic seed dilemma of Africa. These accomplishments made in a 3-year period can be replicated with the wealth of experience accumulated and the lessons learned along the way. The expectation, as this pilot project was conceived and funded by the BMGF, was that with positive results SPEAR would be expanded to other target countries

Challenges and Lessons Learned: Experiences in project implementation and review generated several major insights that have the potential to inform similar initiatives elsewhere and in the future. The main challenges generated and their implications are discussed below, organized around five areas: a) context, b) monitoring and evaluation, c) national structures, d) efficiency, and e) genetic transfer between private sector organizations.

a) Context: context itself is an important determinant of the rate and level of progress and achievement. This is based on the observations that:

- In Malawi, where bureaucracy is relatively high, the approval of an SPEAR national structure was slow and so was the rate of policy development. At the same time, the relatively limited history of close collaboration between the public and private sectors, the absence of a stand-alone National Variety Release Committee, and the mass demonstrations by civil society were country specific developments that undermined progress. But the high levels of commitment among SPEAR members in the country, coupled with support from ICRISAT helped the project to overcome some of the constraints;

[1] The word 'nearly' has been used in order to show that one of the countries – Malawi, which has completed most of the work on these policy documents is yet to finalize the process.

- In Zambia, a relatively well developed seed system with some degree of previous collaboration between public and private sectors, and the current government efforts to revise the Plant Variety and Seeds Act worked in favor of the project. However, the developed sophisticated seed system also resulted in more time being required to meet the rigors of procedures for introducing policy changes in the sector.
- In Nigeria, the relatively high rate of progress appears to have been inspired by the state's readiness for the intervention. For example, the Ministry of Agriculture was embarking on an agricultural transformation program to ensure increased availability of improved seed. The new Minister of Agriculture was keen on the SPEAR initiative. Bureaucracy did not stand in the way. The high level of authority and autonomy of the NASC was also a critical enabler.

One implication of the above lesson is that there need for conducting adequate prior baseline studies in countries where such project are intended. This way, more context-congruent interventions, and expectations can be developed. The other is that cross-learning between countries that have operating contexts which are substantially different (approach to work, policy and legal processes, history of relationships, stages of seed systems) is difficult to foster. This provides a possible explanation regarding the difficulties of sharing lessons between countries during project implementation. From a project design and management perspective, the main lesson that was derived from this insight was that:

- In the future, projects such as SPEAR that cover several countries should treat each country as a separate project, with milestones and a budget that is suited to its unique circumstances.

b) Monitoring: a monitoring for results is critical for ensuring delivery, accountability and action-based learning and improvements. When the project was lagging behind in delivery, monitoring for results had to be stepped up. Consequently the frequency of visits and interaction between the Project Leader and all national structured increased, and so did the resultant pace of progress. The main lesson that arises is that:

- Monitoring for accountability is essential for the success of a project and should both be underlined at the beginning of the project. Where necessary, capacity building for monitoring should be conducted alongside other capacity development interventions.

c) National Structures: the establishment of NACs and National Commissions to oversee and implement respectively was intended to enhance country systems for effectiveness. However, in reality the oversight role of NAC did not appear essential, especially in Malawi and Zambia. In Zambia the two structures held joint meetings several times, about 35 %, while in Malawi only one structure was set up, the NIC. However, what did appear essential in all countries was the need to have people with decision-making powers in the national structures – the more authority and autonomy of the institutions they headed the better. What appears necessary, based on experiences in all countries is the presence of someone who time is dedicated to the project even if this is on a part-time basis. The lessons of the insights arising from national structure(s) to manage and implement a project such as SPEAR are that:

- The NAC and the National Commission are not both necessary. It appears fair to conclude that one structure, which has representation from both Directors and Senior Management, should suffice; and,
- Each participating country should assign at least one person part-time to facilitate project implementation and managing finances.

d) Project Efficiency: Resource flow efficiency is enhanced when the route is shortened or smoothened. This insight arose from the main experiences from changes that were made which resulted in a surge of activities and rate of progress. In Nigeria this resulted in a shorter and more direct flow of funds, while in Zambia an agreement with the national seed trade association (ZASTA) made the difference. The second and related insight is that the technical support of the regional organizations was not really present in most of the difficult times when their assistance was required. The implications of efficiency related insights for future projects of a similar nature are that:

- It is not essential for a regional organization to be included in the project design;
- Sub-contracts should be made directly with the NSTAs and/or the NSAs; and
- Relevant personnel in the national structure should fully understand the requirements in terms of invoicing, presentation of invoices and when funds may be disbursed.

e) Genetic transfer between privates: The project did not insist on any licensing agreements between private sector breeders and seed companies. The insight was that the project should not have planned for private to private company because such arrangements are, by their nature, private and should not be facilitated by a project. The lesson of this insight is that:

- Future projects should not plan for licensing agreements between private seed breeders and commercial seed producers, although such projects can create platforms for dialogue between and among private seed sector actors.

III. Budget progress and results

The budget spreadsheet has been expanded as indicated in the instructions to include actual expenditures, year 3 cumulative, variance and percentage and is attached. Attached is also the financial report of ISU's Controller Department.

- General Budget Progress: the overall budget was at 25% under the original budgeted amount.

- Budget Variances: all line items have variances larger than 10 %. Initially this was caused by normal delays in kick-starting the SPEAR program, delays in getting sub-contracts signed and implemented, and misinterpretation of submission of financial reports by sub-contractors just to mention a few. By the end of Year 2, it was thought that by providing more on the ground support it would be possible to avoid a no-cost extension and extra effort was put in place. However, at the same time, ISU was efficient in allocating resources and eventually considerable savings were attained in all categories except two.

Appendix C: Budget Spreadsheet

Organization Name:	IOWA STATE UNIVERSITY
Project Title:	Seed Policy Enhancement in African Regions SPEAR
Total Requested Amount (US $)[1]:	**$1,459,460**
Date:	
Indirect Cost Rate	10% 0.1

Budget Line Items	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**	**% of Total**	**Non-U.S. Grants Only** Total Costs to be spent in U.S.	**Cumulative Expenses as of 5/31/2013**	**Variance Under/(Over) Budget**
Total Personnel	**77,684**	**75,809**	**68,199**	**0**	**0**	**221,692**	**15%**		**109,903.91**	**111,788.09**
Streamlining the Variety Release System	48,414	49,867	41,479	0	0	139,760				
Enhancement of Genetics Access and Transfer	29,270	25,942	26,720	0	0	81,932				
Major Activity 3:	0	0	0	0	0	0				
Major Activity 4:	0	0	0	0	0	0				
Major Activity 5:	0	0	0	0	0	0				
Total Fringe Benefits	**27,266**	**26,632**	**23,773**	**0**	**0**	**77,671**	**5%**		**30,703.92**	**46,967.08**
Streamlining the Variety Release System	17,168	17,683	14,556	0	0	49,407				
Enhancement of Genetics Access and Transfer	10,098	8,949	9,217	0	0	28,264				
Major Activity 3:	0	0	0	0	0	0				
Major Activity 4:	0	0	0	0	0	0				
Major Activity 5:	0	0	0	0	0	0				
Total Travel	**63,000**	**49,000**	**35,000**	**0**	**0**	**147,000**	**10%**		**187,945.63**	**-40,945.63**

Streamlining the Variety Release System	42,000	28,000	21,000	0	0	91,000				
Enhancement of Genetics Access and Transfer	21,000	21,000	14,000	0	0	56,000				
Major Activity 3:	0	0	0	0	0	0				
Major Activity 4:	0	0	0	0	0	0				
Major Activity 5:	0	0	0	0	0	0				
Total Consultants	**0**	**0**	**0**	**0**	**0**	**0**	**0%**			
Streamlining the Variety Release System	0	0	0	0	0	0				
Enhancement of Genetics Access and Transfer	0	0	0	0	0	0				
Major Activity 3:	0	0	0	0	0	0				
Major Activity 4:	0	0	0	0	0	0				
Major Activity 5:	0	0	0	0	0	0				
Supplies	**5,000**	**5,000**	**5,000**	**0**	**0**	**15,000**	**1%**	**32,267.30**	**-17,267.30**	**1**
Streamlining the Variety Release System	2,500	2,500	2,500	0	0	7,500				
Enhancement of Genetics Access and Transfer	2,500	2,500	2,500	0	0	7,500				
Major Activity 3:	0	0	0	0	0	0				
Major Activity 4:	0	0	0	0	0	0				
Major Activity 5:	0	0	0	0	0	0				
Subtotal of Modified Direct Costs	172,950	156,441	131,972	0	0	461,363				
Indirect Costs on Modified Direct Costs*	17,295	15,644	13,197	0	0	46,136	**8%**			
Subtotal of Modified Direct Costs and Indirect Costs	**190,245**	**172,085**	**145,169**	**0**	**0**	**507,499**				
Total Contracted Services	**30,000**	**30,000**	**30,000**	**0**	**0**	**90,000**	**6%**			

Streamlining the Variety Release System	15,000	15,000	15,000	0	0	45,000		**59,063.26**		**14,063.26**
Enhancement of Genetics Access and Transfer	15,000	15,000	15,000	0	0	45,000				
Major Activity 3:	0	0	0	0	0	0				
Major Activity 4:	0	0	0	0	0	0				
Major Activity 5:	0	0	0	0	0	0				
Total Sub-grants to Others Organizations	**321,164**	**237,500**	**262,700**	**0**	**0**	**853,600**	**58%**	**578,965.17**	**274,634.83**	
Streamlining the Variety Release System	157,197	115,000	124,000	0	0	406,000				
Enhancement of Genetics Access and Transfer	163,967	122,500	138,700	0	0	447,600				
Major Activity 3:	0	0	0	0	0	0				
Major Activity 4:	0	0	0	0	0	0				
Major Activity 5:	0	0	0	0	0	0				
Subtotal of Sub-grants/contracts	351,164	243,778	272,476	0	0	867,418				
Allowable Indirect Costs on Sub-grants/contracts [2, 3]	32,917	24,378	27,248			84,543	**6%**	**47,176.34**	**37,366.66**	
Subtotal of Sub-grants/contracts and Allowable Indirect Costs	**384,081**	**268,156**	**299,724**	**0**	**0**	**951,961**		**405,754.19**		**246,482.81**
Total Equipment	**0**	**0**	**0**	**0**	**0**	**0**	**0%**			
Streamlining the Variety Release System	0	0	0	0	0	0				
Enhancement of Genetics Access and Transfer	0	0	0	0	0	0				
Major Activity 3:	0	0	0	0	0	0				
Major Activity 4:	0	0	0	0	0	0				
Major Activity 5:	0	0	0	0	0	0				
Total Direct Costs	524,114	400,219	404,448	0	0	1,328,781	**91%**	**605,495.16**		**318,837.84**
Total Indirect Costs	50,212	40,022	40,445	0	0	**130,679**	**9%**	**41,378.47**		**89,300.53**

Grand Total Costs	**574,326**	**440,241**	**444,893**	**0**	**0**	**1,459,460**	**100%**	**1'087,404.00**	**372,056.00**

[1] All amounts must be in US $

[2] Indirect rates are only applicable to the first $100,000 for sub-grants and certain sub-contracts (see narrative) and was applied to ISU. Any sub-grants and sub-contracts over $100,000 was applied to the sub-grantee/subcontractee.

[3] Indirect allocation is not allowed on equipment costs

* This indirect cost calculation includes 10% of ISU Direct plus 10% of first $100,000 on each subgrant/contract.

IOWA STATE UNIVERSITY
of Science and Technology

CONTROLLER'S DEPARTMENT
Sponsored Programs Accounting
3609 Administrative Services Bldg.
Ames, IA 50011-3609
515-294-4569
FEIN: 42-6004224

Vendor
Bill & Melinda Gates Foundation
1432 Elliot Avenue West
Seattle, WA 98119

Financial Report	3
Reporting Period	through 04/30/13
ISU Account Number	400-41-27
Total Award	$1,459,460.00

Contract/Agreement Number
OPPGD1316SPEAR
Under the direction of Dr. Cortes

	Year 3 Current Expenses	Year 3 Cumulative
Receipts to Date:	$444,893.00	$1,459,460.00
Expenses to Date:		
Salaries/Hourly	$61,514.06	$109,903.91
Payroll Benefits	17,684.24	$30,703.92
Equipment	0.00	$0.00
Travel - Domestic	0.00	$0.00
Travel - Foreign	52,514.43	$187,945.63
Student Tuition	0.00	$0.00
Supplies/Materials	1,078.89	$1,781.53
Subcontracts	332,651.21	$571,276.47
Services	-	$59,063.26
Telecom Charges	1,345.01	$2,281.18
Computer Usage	0.00	$0.00
Printing/Copying	499.25	$566.45
Honoraria/Services	-	$975.00
Postage	-	$184.73
Currency Conversion Loss	7,688.70	$7,688.70
Other Direct Costs	26,443.91	$26,478.41
Advances to Subcontractors	(72,641.33)	$0.00
Indirect Costs for Subcontractors	26,629.18	$47,176.34
Indirect Costs for ISU	16,107.98	$41,378.47
Total Expenses	$471,515.53	$1,087,404.00
Interest Income	$5,423.70	$6,180.83
Net Cash Flow	($21,198.83)	$378,236.83

I certify that to the best of my knowledge all expenditures reported (or payments requested) are for appropriate purposes and in accordance with the agreement set forth in the award documents.

9-Oct-13

Lisa Shoemaker, Sponsored Programs Accountant
(515) 294-5331 Fax (515) 294-3401

Date

Appendix I
Acronyms

ATCC: Agricultural Technology Clearing Committee, Malawi

CDT: Cotton Development Trust, Zambia

CGIAR: Consultative Group on International Agricultural Research

CILSS/INSAH: Permanent Inter-States Committee for Drought Control in the Sahel

CNFA: Citizens Network for Foreign Affairs

COMESA: Common Market for Eastern and Southern Africa

DARS: Department of Agricultural Research Services, Malawi

DUS: Distinctness, Uniformity, and Stability

ECOWAS: Economic Community of West African States

ESASA: Eastern and Southern Africa Seed Alliance

FAO: Food and Agriculture Organization of the United Nations

ICRISAT: International Crops Research Institute for the Semi-Arid Tropics

ISU: Iowa State University

NASC: National Agricultural Seeds Council, Nigeria

NARO: National Agricultural Research Organization

NCVRRC: National Crop Variety Registration and Release Committee, Nigeria

OECD: Organization for Economic Co-operation and Development

OIPTT: Office of Intellectual Property and Technology Transfer

SADC: Southern African Development Community

SPEAR: Seed Policy Enhancement in African Regions

STAM: Seed Trade Association of Malawi

UNZA: University of Zambia

UPOV: The International Union for the Protection of New Varieties of Plants

VCU: Value for cultivation or use

VRC: Variety Release Committee, Malawi

ZARI: Zambia Agriculture Research Institute

ZASTA: Zambia Seed Trade Association