Report on BIFAD Visit to Sokoine University of Agriculture (SUA) and Innovative Agricultural Research Initiative (iAGRI)

Brady Deaton, Susan Owens and Montague Demment
September 16, 2015

Introduction

The team (Deaton, Owens and Demment) was provided with extensive background materials before visiting Tanzania. It is apparent that the iAGRI project represents a comprehensive approach to human and institutional capacity development (HICD) and is intended to implement the strategic plans of the USAID Mission, the Feed the Future Initiative of USAID, and the agricultural development objectives of Tanzania. Accordingly, the project addresses the research, training and institutional capacity building needs of SUA, the Ministry of Agriculture, Food Security and Cooperatives (MAFC) and the strategic plans of the Ministry of Education (MoE), using a demand-driven project approach.

The iAGRI project is a partnership between a US university consortium led by The Ohio State University and including Michigan State, Virginia Tech, Tuskegee University, and University of Florida, in partnership with SUA and MAFC. iAGRI is an innovative example of human and institutional capacity development (HICD) and represents a substantial USAID investment in university-to-university partnerships. iAGRI has successfully developed a plan that is consistent with the human and institutional development needs of SUA and human capacity needs of MAFC with a quality improvement paradigm sanctioned by the SUA administration. The iAGRI team is currently successfully navigating the formal structure of SUA. This success is possible because of a talented team that has been assembled by the lead university, OSU, and because of the persuasive ability of the Chief of Party, David Kraybill from the Ohio State University, and the other USA-LGU consortium partners.

As the project has evolved, it has remained sensitive to the needs of the USAID mission, the culture of SUA, and the strategic direction of the MoE. SUA is a recognized leader in agricultural education and training in Tanzania and its future role seems assured if the processes of change can be managed to acquire the needed administrative functionality and infrastructure for higher quality faculty, critical research and relevant outreach. The MAFC component of the iAGRI project has focused on graduate education for ministry staff and their inclusion with collaborative research activities, without the substantial institutional capacity development focus of the SUA component. The primary emphasis of the BIFAD familiarization visit was on the predominant SUA component of the iAGRI project.

Observations

Project Level:

a. *General approach.* The approach of iAGRI has been one of assessment, learning, and responsive creativity coupled with cultural sensitivity. This is embedded in an evolving theory of institutional change (TIC) that attempts to assess institutional process and structure relative to goals set by the university in concert with the national educational plan under the MoE and the development of a systematic approach to achieve those goals. A key feature of this approach is the delicate interaction between the formal and informal structures of SUA, with informal changes leading to institutional changes in an iterative process. Both SUA administration, faculty and staff and the iAGRI team are key actors in the implementation process.

At SUA the challenge is not the defining of appropriate goals, which have largely been set by the university, but more effective implementation of changes that allow their achievement. The iAGRI approach is consistent with recommendations of both an extensive BIFAD review of human and institutional capacity development[1] and a major review of higher education in Africa commissioned by USAID and conducted by APLU.[2] iAGRI and COP Kraybill bring an innovative comprehensive approach to building institutional capacity that includes human capital development and collaborative research components and uses both formal and informal university structures. Taking TIC applications from a wide range of public and the private sector experiences, engaging experts in institutional change and building on Kraybill's considerable experience and thinking on change, the project represents a new and dynamic approach to university partnerships. Much can be learned from this experiment.

iAGRI's approach to *human capacity development* was based on an initial needs assessment of the Tanzanian Food System that delineated priority research areas. This was then followed by a human and institutional capacity needs assessment at SUA and the MAFC. The needs assessment was aimed at establishing a starting point or seeking correct entry points to respond to the four objectives of iAGRI. Accordingly, the needs assessment aimed at determining skill requirements in training and research at SUA, MAFC, and selected food system private sector firms. These skill and research gaps then made it possible to establish an informed agenda for training and research. The human capacity development effort was linked to the institutional

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[1] BIFAD (2014) BIFAD Review of Strategic Human and Institutional Capacity Development (HICD) Issues and the Role of USAID and Title XII under the Feed The Future Programs. http://www.aplu.org/projects-and-initiatives/international-programs/bifad/BIFAD_Library/bifad-human-and-institutional-development-report/file

[2] APLU (2014) African Higher Education: Opportunities for transformational change for sustainable development. http://www.aplu.org/projects-and-initiatives/international-programs/knowledge-center-for-advancing-development-through-higher-education/knowledge-center-library/AfricanHEreport/file

capacity development strategy to build inter-disciplinary synergies, increase funding effectiveness and enhance the sustainability of the effort. Copies of these reports are available on line. [3]

b. *Institutional Focus.* iAGRI has given strong priority to transforming SUA, its structure and human capital development to enable the university to be a stronger engine of growth for the Tanzanian agricultural economy, for rural development and livelihood improvement. The project has evolved under the iAGRI team's dedication to the belief that SUA can produce thousands of well-trained and relevant graduates for the national workforce, private and public sectors, and that it can be a national, regional, and continental leader in innovation in agricultural and food systems. iAGRI also is being responsive to training needs at MAFC.

c. *Problem solving institution.* One of the great challenges for African universities is to become more relevant to the evolving needs of society, to transform into problem-solving institutions. iAGRI has developed an array of mechanisms to connect the university with the private sector, farmers and society. For example, iAGRI's Innovation Portfolio acts to broker research funding with local firms to commercialize products. More broadly, iAGRI is building the capacity and changing mindsets at the university to better serve the public through relevant research, outreach to the private sector and local communities, and continuing education opportunities. These pilot experiences illustrate the potential benefits of the university to address the key problems of the agricultural sector and to provide needed entrepreneurship and business development. The potential revenue generation for the university, made possible by a growing set of technical support linkages, could add significant financial support for future university expansion. Establishing improved policies for revenue sharing among units of the university and the faculty members will be critically important to insure appropriate incentives and effective cost reimbursement.

d. *Partnership with US land grant institutions.* The iAGRI project is first and foremost a partnership between SUA and a consortium of six USA-LGUs, led by OSU. The partnership has two significant impacts. First, with an outside partner, change is more possible. One high ranking SUA administrator said that under the direct-funding model adopted by some donors there is little incentive for SUA to change but with the strong interaction of the iAGRI partnership, change is more likely to occur. Second, US land-grant universities have strengths in the processes that appear to be needed most by SUA (connection to the private sector, outreach to communities, integration of research, education and extension). It is notable that most of the SUA administrators were not trained at US higher education institutions,

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[3] http://www.iagri.org/reports

particularly land-grants, so while they understand the concepts of linking education, research and outreach, they are not knowledgeable in the administrative functionality to produce that linkage.

e. *Support of the Mission.* The USAID Mission has been very supportive of the iAGRI design, conceptualization, and operations. They have supported assessment, learning and adaptation of the project that has allowed its evolution in response to the university environment and national needs. This approach, coupled with the cooperative agreement funding instrument, allows iAGRI to be more innovative, creative and effective. The overall working partnership has built trust of all parties that has allowed iAGRI to build the credibility with SUA leadership and staff that is fundamental to the TIC and achieving the goals of the project.

f. *Support of the University:* SUA leadership is commended for the partnership role it has played in the iAGRI project. Both parties worked through the inevitable tensions of the start-up phase with success and mutual support. The Vice Chancellor and his key staff are supportive and willing to take chances and try new ways of doing things to transform the University with iAGRI's assistance. They articulate the key principles of the project and their willingness to work with iAGRI leadership to achieve transformation of the Institution.

g. *Support of the OSU Management Entity.* Programmatic innovations being implemented by the iAGRI in-country team and other aspects of the project, including contractual and financial reporting responsibilities, interfacing with the five USA land-grant university partners, and co-management of the collaborative research and degree training programs, would not be possible without the essential backstopping role played by the Management Entity (ME) at Ohio State University. The partnership between SUA and iAGRI has been greatly aided by having an OSU faculty member on the ground in Tanzania as the COP to communicate and build trust between the two universities. Effective communication between the OSU ME and the Project Management Unit has been critical for effective project administration and support. It has been greatly facilitated by video conferencing capabilities put in place by the iAGRI team (see Appendix 3 for further description of OSU ME roles).

h. *Focus of sufficient resources.* The project has significant funding and is of sufficient duration to achieve significant impact at the institutional level; this is critical to successful institutional transformation. The level of funding and the long-term commitment of support are critical to have the partnership be a significant enough effort to make change happen at the institutional level.

i. *Establishing the SUA Brand.* A fundamental objective of iAGRI is to build the reputation of SUA to provide knowledge, services, education to contribute to Tanzanian economic growth and social development. To achieve these impacts SUA needs to develop stronger recognition within Tanzania, particularly with government ministries, Parliament, local governments, the private sector, NGOs, of the value it provides; a brand that embodies excellence, service, relevance and effectiveness in its role as Tanzania's premier provider of agricultural science, education and outreach.

j. *Feed the Future (FTF) support.* The iAGRI initiative is consistent with the goals of FTF in its focus on collaborative research and human capital needs that will enhance priority programs related to agricultural value chains and nutrition. iAGRI is laying the foundation for FTF to have a long run impact by building the human and institutional capacity in the country's primary knowledge-generating agricultural institutions, SUA and MAFC.

k. *Gender and special needs populations.* Our assessment indicates that SUA attempts to embed principles of gender analysis and sensitivity, targeting of critically impoverished populations, and focus on nutritional links with agricultural transformation processes in its teaching, research, and outreach. iAGRI, by committing to male-female parity in scholarship recipient selection, is assisting SUA to increase the number of women on the faculty. The project also sponsors a mentoring program for junior faculty and conducts programs in secondary schools to promote the study of science, with special targeting of female students.

2. Operational: Funding and Outside Engagement
   a. *Funding environment.* Tanzanian government support has been significantly restricted in the recent past, such that public universities across the country were unable to hire new or replace faculty lost through retirement, death or disability for a 12-year period. That condition was relaxed recently, but national government revenues remain inadequate to meet the burgeoning needs of the university. Funds for infrastructure, maintenance, replacement, and new capital facilities are desperately needed. Additional funds for institutional changes in services and administrative reform also remain limited.

   The government pays salaries and a small portion of operational costs but funds for research, development, infrastructure expansion and maintenance are almost totally absent. SUA relies upon outside funding as the primary source for these requirements. Donors have been reluctant to fund "bricks and mortar" in the form of classrooms, laboratories and offices, with some SUA laboratory equipment dating back to the 1960s. A few individual faculty members are successful at procuring such funding but even those are quite constrained by their infrastructure/equipment environment.

b. *Consulting services.* iAGRI has encouraged and supported the expansion of consulting opportunities for faculty. They have done this by bringing consulting services inside the university structure. This approach is important because faculty often consult as individuals without linkage or attribution to SUA, hence the university gets no public credit or recognition for these services. This phenomenon does not elevate SUA's brand, an important goal of iAGRI. SUA's public service role in serving external stakeholders and clientele could be greatly enhanced in various areas such as soil analysis and nutritional analysis for animal feeds and food for humans. These services would have broad impact on the effectiveness of design intervention in FTF's efforts in sustainable intensification for plants and animals, and diets for women and children.

c. *Linking with outside partners: connecting research and commercialization.* iAGRI brings an array of perspectives on funding opportunities and ideas that fall outside the set normally considered by SUA staff. The project is based on the TIC that emphasizes engagement with stakeholders and clients external to the University outreach and entrepreneurial efforts that are new at SUA. For example, iAGRI is helping SUA to generate income from agricultural production on campus and from contracting with private firms and NGOs for SUA-produced innovations and services. This will dramatically increase the impact of SUA on the agricultural sector in a manner that is consistent with FtF goals.

The Innovation Portfolio is an experimental activity within iAGRI to provide a means for research results to be commercialized and for technical and professional services to be provided to clients. By monitoring and engaging researchers to understand the implications of their work, then identifying potential applications, the IP begins a dialogue with appropriate private sector partners to invest in further product development or to contract for expert services. While not a patent generating function, it is a means to develop private sector connections and success that build the reputation of SUA as one that serves the private sector. For example, a fermentation process for porridge which was the focus of the Masters thesis research of an iAGRI student has been turned into a commercialized product sold through iAGRI's assistance to a Tanzanian company. This approach generates resources for the University and for individual researchers.

d. *Response to the Deloitte fiscal evaluation.* To enhance the capacity of SUA to receive direct grants from USAID, the Agency requires a review of fiscal operations of the institutions. SUA received high marks generally but had four areas of risk mitigation that needed support. iAGRI worked with USAID and SUA to design a risk mitigation exercise that combines training and management system changes that are being contracted by iAGRI. The iAGRI TIC was engaged in this process to build SUA management capacity to meet the risk mitigation requirement identified by Deloitte that now allows the

University to receive direct grants from USAID. Consequently, SUA recently received a direct grant for critically needed IT investments.

3. Operational: Theory of Institutional Change (TIC)
   a. *iAGRI leadership team.* The iAGRI team has developed a learning, adaptation and implementation environment critical to making progress with institutional and human capacity development of SUA (and hopefully higher education more generally in Tanzania). A strong and positive working relationship has evolved with the SUA administration that is built on engagement, cooperative problem-solving, and trust.

   b. *Experimentation and TIC.* The iAGRI TIC is based on the premise that the application of broad principles of institutional change can be applied to higher education institutions generally, with the specific mechanisms and tools for implementation developed through experimentation. iAGRI and SUA have jointly populated the organizational experiment portfolio with a wide array of activities designed to explore how the culture of the institution responds and then on the basis of what is learned, to make changes in the formal system of the University. This set of 21 experiments attempts to increase internal engagement and to make the university more responsive to the needs of external stakeholders and clientele. The experiments also aim to increase funding opportunities for SUA and to have perceptible impact on the economy.

   c. *External institutional engagement.* In concert with its outreach, iAGRI is building the internal capacity of SUA to be more effectively engaged externally. For example, iAGRI is building the capacity of the library to increase access to scientific resources online and support greater connectivity between other universities for access to journals and other literature. Similarly, iAGRI is developing a statistics laboratory to provide statistical support for students and faculty for their research needs. Both of these resources increase the quality of grant proposals, services to the public through better and expanded research and engagement. The direct USAID grant to SUA for improvements to their IT systems will greatly enhance the ability of facultry and students to access scientific resources and participate in in online workshops, courses, and learning seminars.

   d. *Promoting a model for the 21st century African university*. iAGRI is engaging East African leaders in the public and private sectors in "crucial conversations" about the future of higher education in the region. The TIC developed through iAGRI's engagement with SUA pays attention to who is in the conversation, where and when it takes place, and what happens as a result. An example is a study tour by SUA officials and iAGRI staff to three Kenyan universities with a focus on income generation and innovation. This study tour has led to a mutual exchange of ideas related to income generation, digital libraries, intellectual property, quality management

systems, and other topics. A second example is iAGRI's Innovation Portfolio whose engagement of the private sector has occurred through networking and convening of experts, fostering trust among scientists and industry, and laying the groundwork for "crucial conversations" that will lead to actionable and measurable outcomes that improve food security.

4. Operational: Human Capacity Development
   a. *Effective training process with impact on women faculty.* iAGRI has developed a training process that has both high volume and quality with an anticipated 139 students from SUA and MAFC supported in degree programs. Many of the trainees are SUA faculty members going for advanced degrees in the US, with coursework in the US and research in Tanzania. This approach combines quality instruction and cross-cultural experience with a focus on Tanzanian problems and solutions. Furthermore iAGRI support is available upon faculty member return for small research projects, service support and potential for commercialization. Perhaps most important for the US trainees is the experience of the learning environment at US universities. This promotes informal communication of "soft skills," increases contact and interaction with faculty, develops independence in students, and builds confidence as students publically present and defend their ideas. As we heard from trainees, this is particularly important for women faculty and their capacity to advance once they return.

5. Operational: Monitoring and Evaluation
   a. *Monitoring and Evaluation:* iAGRI understands the importance of measurement of progress in both the human and institutional dimensions of the program. The iAGRI team has developed a series of indicators, in consultation with USAID, to track program progress. One of the challenges that higher education faces in the development field today is that it does not have sophisticated measures of the diffuse impact that higher education has on economies and societies. Part of the challenge then is to identify intermediate measures that can be used to assess impact and project performance. The institutional transformation indicators developed by iAGRI are a very useful contribution to higher education partnerships focused on institutional change. In the more general education development space, the project is well suited to making contributions to how best to capture the full impact of higher education on development.

Suggestions for iAGRI
   a. *Project extension.* iAGRI clearly represents a new approach to transforming knowledge-generating and human capacity development organizations that is consistent with a number of studies on HICD. Based on this brief familiarization visit, there is sufficient evidence to suggest a more formal review of the project and serious consideration given to extension to 10 years. Beyond review for evaluation there is much to be learned in a more extensive review about the TIC work of iAGRI that can benefit the design of

future efforts by USAID and the US university partners. The work of iAGRI at SUA, focused around organizational experiments that improve the strategic management and operational efficiency of the University so that it can better engage with external partners in the public and private sectors, appears to have too great a potential for change to be confined to one institution. In a follow-on project phase, iAGRI might explore mechanisms to replicate the successful approaches of iAGRI at other universities or within the MAFC. The extension of the iAGRI approach presents a timely opportunity for taking lessons learned at iAGRI to be scaled up for broader impact.

b. *USAID Program Integration Coordinator (PIC).* USAID has a number of programs at SUA. Ten Feed the Future Innovation labs are active at the university, along with a number of other FTF projects supported by the Mission and Washington. All the programs and the overall impact of USAID on SUA and Tanzania could be enhanced by greater coordination of these efforts. One possible approach would be to fund, through iAGRI, a coordinator to pull together the SUA faculty who partner in USAID projects (with an emphasis on Innovation Labs) to increase awareness of each other's programs. This coordination would allow for shared training, complementary research focus areas and other joint efforts such as workshops and conferences. A coordinator would stimulate interaction and coordination to increase efficiency of resource use, and map out the cumulative landscape of USAID activity at SUA to better capture the total impact of USAID investment. The coordination of the Innovation Labs (ILs) and other USAID programs that take place at SUA holds great potential for capturing efficiencies, creating new opportunities, and enhancing the brand of the University in a new setting.

c. *Program to engage other Tanzanian universities.* The work at SUA appears to have too great a potential for change to be confined to one institution. Mechanisms for sharing the successful approaches of iAGRI should be explored. In particular Tanzania is developing a second new agricultural higher education institution; the creation of this institution might present an excellent and timely opportunity to apply lessons learned at iAGRI.

d. *Assessment and continuation of projects within the portfolio.* iAGRI leadership will need to assess the extent to which current projects and progress are sufficiently embedded within the institutional processes of the University to reduce project management attention and leadership. There is much to be gained in continuing to refine and adjust efforts as projects mature, continue to be nurtured, and in some cases are winnowed from the list of priorities. Some of the projects hold much yet unrealized potential rewards for the university, some will proceed under their own momentum, while yet others may fade away. Managing the dynamics of that ongoing process must be institutionalized within the university's culture and structure.

e. *Measures of higher education's impact.* The higher education indicators developed by iAGRI should be shared with the greater higher education community for review and discussion. This interaction would advance the field of M&E in higher education and might expand the discussion of the overall effect of higher education on development. The latter is critical to capture the full impact of higher education, and would allow policy makers to have the evidence for appropriate allocation of resources.

f. *Women in USAID funded training programs.* After team discussions with returned women participants, we realized that some of the USAID policies are impeding future plans of young faculty women. Accordingly, we suggest that USAID and its university partners need to discuss how to make child friendly policies that promote and not constrain women's participation in higher education training in the U.S. iAGRI has developed a policy for students trained in the U.S. that accommodates PhD students who are mothers with young children by giving them an extra trip back to Tanzania. Continuing attention to the issue of facilitating the experiences of female trainees would be beneficial.

g. *PhD not MS training.* For SUA's future, iAGRI should focus on PhD training to ensure faculty are sufficiently skilled and credentialed to obtain international support for their funding efforts. Given the domestic funding environment for research and outreach activities and the importance of research in training graduate students and maintaining the relevance of undergraduate education, PhD level faculty are essential for institutional advancement. This point was reinforced by the recognized need for post-docs advocated by one of the most productive members of the faculty. The MAFC research arm is also more interested in PhD level training.

h. *International Conferences at SUA.* The organization of key conferences that address critical issues related to FTF should be part of the future of iAGRI and SUA. They build SUA's reputation, increase its profile, enhance its ability to gain outside funding, and share the anticipated success of iAGRI's approach to institutional transformation.

i. *Continue to promote revenue-generating activities.* iAGRI has helped SUA to develop a number of experiments in this area and should continue with experimentation. One example is in geospatial technologies, one of the great technological advances for agriculture, environment and any number of human patterns of land use, behavior etc. Mapping is a powerful tool to integrate data, present patterns for public consumption and policy debate, and to illustrate production across heterogeneous landscapes. The development of this capacity, in partnership with US universities, would offer a major resource to open up a wide range of additional opportunities

for the university to engage the public and private sectors and become more active in the policy debates.

j. *Develop the ICT capacity of the university.* The rapidly evolving area of online education offers a unique opportunity to increase the quality of education and possibly reduce costs. This is a dynamic area in which US universities are excelling; they have an array of approaches and well- developed technical capacities. iAGRI could engage its partners to build the capacity of SUA to produce its own courses using existing platforms for adaptation. Partnering US universities with SUA through iAGRI would be a cost- and time-effective way to speed the process. Developing such educational capacity would build overall ICT for other uses such as outreach and continuing education. Perhaps most important, ICT would be a means to deal with the demographic youth bubble that Tanzania is and will increasingly face in the future.

k. E*xpand the capacity of the statistics lab.* In an age of nearly unlimited access to data and information, the ability to critically analyze information becomes more critical. Statistics is a key tool. Additionally the effectiveness of experiments and surveys is a direct result of appropriate experimental design. The further development of the iAGRI initiative to address statistical needs and experimental design will greatly enhance the impact of investments in research and ultimately on development investment.

l. *Alumni connection efforts.* iAGRI has taken the lead in developing the first stages of alumni relations. Given the potential of alumni support, both financial and political, alumni relations should be further developed and supported.

m. *Grant development support services.* iAGRI might work with SUA to develop a grant support office that would have the capacity to monitor the funding environment, alert and connect faculty to opportunities relevant to their expertise, provide coaching in grant writing skills, and coordinate and link with researchers in other institutions. A most important function of this office would be to train both faculty and students on the competitive grants process and how to link effectively with the international research community. With time an indirect structure might support and sustain the office. Linkage with the proposed FTF/Innovation Labs coordinator would also be useful.

Further Areas for iAGRI to consider
a) *The decentralization process.* In the short time of the team's exposure to SUA's environment, it is clear that greater decentralization of authority for operations would be useful for increasing performance. Such a plan for decentralization of the administrative structure that gives more decision making to colleges and department exists at SUA. The implementation of

this process depends upon the iterative interplay of the informal and formal organizational structures of SUA, one of the principal goals of iAGRI.

b) *Build service oriented operations.* Support by iAGRI for additional infrastructure (i.e., bricks and mortar) and lab facilities (i.e., soil, nutritional analysis labs, microbial and DNA analysis) would allow SUA to provide services to the public to increase engagement of stakeholders, generate modest revenues and advance faculty research opportunities and output. These operations build on existing infrastructure and can provide modest new revenues that are critical and may even leverage larger, more encompassing capital investments.

c) *Support for the "well rounded student".* In our meeting at the MoE Prof. Sylvia Temu (Director of Higher Education) stressed the need for curriculum reform that would result in a well-rounded student. The integration of liberal arts into the curriculum of other universities, including SUA, was recognized as having potential value. While technical skills are important, problem-solving skills are critical in science and the administration of science. In a globally connected world, science has its international standards of ethics and operations that are very much a part of the development process. Curriculum enhancement could be an important legacy of iAGRI contributions to the institution, and to the values of education that will shape the future citizenry of Tanzania.

d) *Continue to build the SUA website.* Understanding the importance of the SUA website in modern communications as the face of the University and its role in establishing within the rankings of universities, iAGRI should consider how to make the website most effective in linking the public to the university. Access to information relevant to agriculture, nutrition and environment and successful engagement should be emphasized.

e) *Connecting with local government authorities.* In the decentralization of the Tanzanian political structure, much emphasis has been placed on the role of the districts. They are the point of much of the delivery of governmental services. iAGRI might consider developing mechanisms for greater linkage with the districts that might include educational support of MAFC extension workers, identification of research to solve local problems, networks to share district level information, and small grants competition for district staff to collaborate with SUA staff. This dimension might be enhanced if a follow-on project phase of the iAGRI project is funded.

f) *New multidisciplinary public policy program at SUA*. Such a program was envisioned by one faculty member to provide public policy analyses that drew on the strengths of the faculty and would improve the brand of the

university. The contributions of Dr. David Nyange were given as an example. Dr. Nyange was one of the creators of the iAGRI project and is now working at the MAFC as a Policy Advisor under MSU.

Appendix 1

BIFAD-APLU Familiarization Visit to iAGRI
May 11-17, 2015 (in Tanzania)
Visitors

NAME	POSITION
Dr. Brady Deaton	Chair, BIFAD Chancellor Emeritus, University of Missouri
Dr. Montague Demment	Vice President for International Programs, APLU
Susan Owens	Executive Director, BIFAD

Program

Date	Location	Activities
Monday May 11	Travel	• Arrive Dar es Salaam: Drs. Deaton and Demment on Swiss LX 296 at 9:05 PM to be met by Dr. Kraybill; Ms. Owens on Kenya Airway KQ 488 at 12:50 AM to be met by Avis driver, Hussein (mobile #0788382338) • Lodging at Sea Cliff Hotel, Dar es Salaam (phone: +255 22 5529900, +255 764 700600)
Tuesday May 12	Dar es Salaam	• 8:00 AM Pick up at Sea Cliff Hotel by embassy driver (Fred) • 9:00 AM: USAID Feed the Future team (Dr. Mary Hobbs and others) • 10:00 AM: USAID Mission Director, Ms. Sharon Cromer, and Deputy Mission Director, Mr. Tim Donnay • 11:15 AM: Depart for downtown • 11:45 AM: Lunch at Serena Hotel with Dr. David Nyange, Advisor to Ministry of Agriculture (via Michigan State University) and formerly with USAID Tanzania • 2:00 PM: Ministry of Agriculture, Permanent Secretary, Mrs. Sophia Kaduma, and Director of Research and Development, Dr. Fidelis Myaka • 4:00 PM: Ministry of Education, Director of Higher Education, Prof. Sylvia Temu • 5:00 PM: Head back to Sea Cliff Hotel • 7:00 PM: Dinner at Sea Cliff Hotel with Mr. Geoffrey Kirenga, Exec. Dir. of Southern Agricultural Growth Corridor (SAGCOT) and Ms. Rebecca Savoie, Chief of Party, Tuboreshe Chakula Project

Wednesday May 13	Morogoro	• 7:00 AM: Departure from Seacliff Hotel for Morogoro • 11:00 AM: Arrive at Nashera Hotel in Morogoro • 11:30 AM: Departure for Sokoine University of Agriculture (SUA) • 11:45 AM: Tour iAGRI headquarters • 12:00 PM: Overview of project, Prof. David Kraybill and Dr. Isaac Minde, iAGRI Director and Deputy Director. iAGRI conf. rm. • 12:45 PM: Tour of main campus • 1:30 PM: Lunch at SUASA Club on SUA campus with Kraybill, Minde, Mattee, Mullei, Barnabas • 2:30 PM: iAGRI's approach to institutional capacity development, Kraybill and Minde. iAGRI conf. rm. • 3:30 PM: Meet with iAGRI program managers in training, research, innovation portfolio, gender. Emmanuel Rwambali, Lucy Chove, Isaac Minde, Maria Mullei, Carolyne Nombo. iAGRI conf. rm. • 5:00 PM: Meet with iAGRI students • 5:45 PM: Leave SUA for Nashera Hotel
Thursday May 14	Morogoro	• 8:30 AM: Leave Nashera Hotel for SUA • 9:00 AM: Meet with SUA Vice Chancellor, Prof. Gerald Monela; Deputy Vice Chancellor-Academic, Prof. Peter Gillah; and Deputy Vice Chancellor-Administration & Finance, Prof. Yonika Ngaga. VC's office. • 10:30 AM: Meet with Dean of Faculty of Agriculture, Prof. Susan Nchimbi-Msola. Dean's office. • 12:00 PM: Visit SUALISA (SUA Laboratory for Interdisciplinary Statistical Analysis), Dr. Benedict Kazuzuru, Dr. Kassile, Emannuel Msemo. • 12:45 PM: Visit Sokoine National Agricultural Library • 1:30 PM: Lunch at SUASA Club with VC & DVCs plus Kraybill, Minde, Barnabas • 2:30 PM: Visit iAGRI-supported horticulture demonstration facility at SUA • 3:30 PM: Visit poultry trials conducted by SUA for private sector through iAGRI's Innovation Portfolio, Dr. Salome Mutayoba and Dr. Maria Mullei • 4:00 PM: HICD for the 21st century, discussion with iAGRI staff (Kraybill, Minde, Mattee, Rwambali, L. Chove, Mullei, Asia). iAGRI conf. rm. • 5:30 PM: Leave SUA for Nashera Hotel
Friday May 15	Morogoro	• 8:30 AM: Leave Nashera Hotel for SUA • 9:00 AM: Meeting with iAGRI students • 10:30 AM: Join SUA-iAGRI Monthly Leadership Forum for Deans, Directors, and Heads • 11:00 AM: Discussion with Department Heads in Faculty of Agriculture • 12:30 PM: Lunch at SUASA Club with faculty Tumbo, Nyambi, Kinabo, Nyamete, Kazwala, Kajembe plus Kraybill, Barnabas • 1:30 PM: Visit International Tanfeeds, a local private company

		• 3:30 PM: Meet with Dr. Frederick Kahimba, SUA engineering researcher leading team providing technical services to MEDA • 4:30 PM: Meet (virtually) with MEDA, a client of SUA and iAGRI's Innovation Portfolio • 5:00 PM: Meet with Profs. Mbassa and Gillah on Convocation (alumni association), iAGRI conf. rm. • 5:00 PM: Leave SUA for Nashera Hotel
Saturday May 16	Morogoro/ Dar	• Summarizing and report writing • Leave Morogoro at 2:00 PM for Sea Cliff Hotel, Dar es Salaam in iAGRI vehicle
Sunday May 17	Dar es Salaam	• Arrive at airport in Dar es Salaam three hours before departure

Appendix 2

BIFAD iAGRI Visit Overview

NAME	POSITION
Dr. Brady Deaton	Chair, BIFAD Chancellor Emeritus, University of Missouri
Dr. Montague Demment	Vice President for International Programs, APLU
Ms. Susan Owens	Executive Director, BIFAD

Brief Overview of Visit

The visiting team will arrive in Tanzania on May 11. On May 12, they will meet with USAID, the Ministry of Agriculture Food Security and Cooperatives and the Ministry of Education and Vocational Training in Dar es Salaam. On May 13, the team will travel in the morning to Morogoro for a visit to iAGRI and Sokoine University of Agriculture. On May 17, they will return to Dar and leave the country that evening.

Purposes of Visit

- To familiarize USAID/BIFAD with the iAGRI partnership with SUA and MAFC;
- To familiarize USAID/BIFAD with the dimensions of HICD in this project.
- To understand how the project is working, the opportunities and challenges, and the potential for scaling up in other places;
- To gain a sense of long term significance of investment by USAID in the context of the overall national investment in universities for the social and economic development of Tanzania.

Objectives of Visit

- Relationships: how iAGRI operates. Within SUA and with the ministries. With the private sector. With other USAID funded programs at SUA. With the USAID Mission. With Ohio State University. With other donors and their programs. How does SUA fit within the strategic plans and bureaucratic structure of education and agriculture within Tanzania?
- Challenges: Operational, project design, training, research, institutional strengthening and theory of change, assessment process, connections with private sector

- Future opportunities: possible iAGRI future opportunities? Perspectives of international actors engaged in shaping higher education in Tanzania? Engagement and coordination with other USAID programs in Tanzania? Plans for the partnership and potential outputs expected?

Venues to Visit
- USAID, Dar es Salaam
- Ministry of Agriculture Food Security and Cooperatives, Dar Es Salaam
- Ministry of Education Vocational Training, Dar es Salaam
- iAGRI headquarters, Morogoro
- Sokoine University of Agriculture, Morogoro

Expected Outcomes
Upon completion of the visit, the participants will prepare a written report.

Board for International Food and Agriculture Development (BIFAD)
The Board for International Food and Agricultural Development advises USAID on agriculture and higher education issues pertinent to food insecurity in developing countries. The President appoints members. BIFAD was established under Title XII amendment in 1975 to the Foreign Assistance Act of 1961. The Board supports the critical role of U.S. land-grant institutions in agricultural development, domestically and abroad, and helps to oversee their representation in USAID development assistance programs.

Association of Public and Land Grant Universities (APLU)
The Association of Public and Land-grant Universities is a research, policy, and advocacy organization dedicated to strengthening and advancing the work of public universities in the U.S., Canada, and Mexico. With a membership of 238 public research universities, land-grant institutions, state university systems, and affiliated organizations, APLU's agenda is built on the three pillars of increasing degree completion and academic success, advancing scientific research, and expanding engagement. The association's work is furthered by an active and effective advocacy arm that works with Congress and the administration as well as the media to advance federal policies that strengthen public universities and benefit the students they serve.

Sokoine University of Agriculture (SUA)

In 1965, the Government of Tanzania established the Morogoro Agricultural College for diploma (high school) training in agriculture. In 1969, it became the Faculty of Agriculture of the University of Dar es Salaam. In 1984, through an act of the Tanzanian Parliament, it was transformed into an independent institution, known as Sokoine University of Agriculture (SUA). Today, it has four faculties: Agriculture, Forestry and Nature Conservation, Veterinary Medicine, and Science. SUA is three kilometers from the center of Morogoro Municipality, located 200 km west of Dar es Salaam. The university is currently made up of two primary campuses, both in Morogoro: the Main Campus and the Solomon Mahlangu Campus. In addition, SUA has a Forestry Training Institute at Olmotonyi near Arusha. SUA offers training that lead to awards of certificates, diplomas, bachelors, masters, and doctorates. In 2013-14, the university had a student enrollment of 7,620, of which 550 were in certificate and diploma programs,

6,000 were undergraduates, and 1070 were masters and PhD graduate students. In the same year, it employed 468 members of academic staff (professor, associate professor, senior lecturer, lecturer, assistant lecturer, and tutorial assistants), of whom over 50% have PhDs.

Ministry of Agriculture, Food Security, and Cooperatives (MAFC)

The Ministry is made up of eight divisions: research and development, training, crop development (extension), food security, agricultural land use, agricultural mechanization, irrigation, policy and planning, and administration and human resources. MAFC operates seven zonal agricultural research institutes (as well as several commodity-specific research institutes) and 15 agricultural training institutes which provide training at the certificate and diploma levels.

The mission of the Ministry is to deliver agricultural and cooperative services, provide a conducive environment to stakeholders, build capacity of local Government Authorities and facilitate the private sector to contribute effectively to sustainable agricultural production, productivity and cooperative development.

Innovative Agricultural Research Initiative (iAGRI)

The Innovative Agricultural Research Initiative is a USAID-funded project and part of the Feed the Future suite of programs in Tanzania. The prime contractor is The Ohio State University (OSU), and the project is managed by the Office of International Programs in Agriculture (IPA). The Co-PIs are Dr. Mark Erbaugh, Director of IPA, and Dr. David Kraybill, Professor of Agricultural, Environmental and Development Economics. Dr. Kraybill is the Chief of Party. OSU subcontracts with five other land-grant universities (Iowa State University, Michigan State University, Tuskegee University, University of Florida, and Virginia Tech) for delivery of various services to iAGRI.

The project aims to prepare the next generation of agricultural scientists, leaders and knowledge-generating institutions in the food system of Tanzania. Its domain of activity is human capacity and institutional capacity development through training, research, organizational transformation, and public-private partnerships. iAGRI was initially funded for five years (2011-2016) but was subsequently extended by USAID to six years, ending in February 2017. Under the cooperative agreement between USAID and Ohio State University, iAGRI could be extended up to a total of 10 years.

Questions to be Addressed

1.   Innovative Agricultural Research Initiative (iAGRI)
Objectives
Stakeholder Institutions
Guiding Principles
Capacity building
Theory of change
Training
        Long-term (degree)
        Short-term
Collaborative Research
Strengthening International Linkages
        Faculty Exchanges
        Study Tours
RUFORUM
        Punjab Agricultural University
2.   SUA
Administrative Structure
        Governance
        Academic Units
Funding
        Sources and Levels
        Funding for Research
Strategic Plan
Enrollment History
Staffing
        Staff Qualifications
        Professional Development Opportunities
Restructuring from Faculties to Colleges
Linkages to Tanzanian Higher Education Agencies
Training
Research
Outreach
Linkages to Private Sector
3. Ministry of Agriculture, Food Security, and Cooperatives (MAFC)
4. Ministry of Education, Directorate of Higher Education
5. Tanzania Commission on Universities

Appendix 3

Management Entity Contributions to iAGRI.

iAGRI is a USAID-funded project and part of the Feed the Future suite of programs in Tanzania. The prime contractor is The Ohio State University (OSU) and the project is managed through the iAGRI Management Entity (ME) in the Office of International Programs in Agriculture in the College of Food, Agricultural and Environmental Sciences (CFAES) at The OSU in Columbus, Ohio. Mark Erbaugh is the Administrative Director Co-PI and David Hansen is the Project Coordinator in the ME. Also in the ME is the Budget Manager, David Mackie; training coordinator, Wendi Howell; and Administrative Assistant, Pat Rigby. The ME coordinates all project activities with Project Management Unit (PMU) which is located in Morogoro, Tanzania on the campus of Sokoine University of Agriculture (SUA).

The ME is the primary support office for iAGRI activities undertaken in Tanzania by the PMU and related project activities in the United States. Among the major support functions provided by the ME are:

1. Contract Management Responsibility - The ME through the OSU Office of Sponsored Program (OSP) assumes all contractual responsibility for the Cooperative Agreement 621-A-00-11-00009-00, signed by USAID/Tanzania on March 1, 2011. This includes all financial reporting, annual work plan development, quarterly performance reports, annual performance reports, and the eventual final report. All project support funding flows through the ME. Audit responsibility is through the OSP, but final signatory approval rests with the iAGRI administrative director.

      The ME currently maintains 9 subcontracts with OSU development partners including 5 with OSU Consortium (OSUC) partners Iowa State University, Michigan State University, Tuskegee University, University of Florida, and Virginia Tech, plus additional subcontracts with SUA, Regional University Forum for Capacity Building in Agriculture (RUFORUM), Mikocheni Agricultural Research Institute and the Punjab Agricultural University in India.

2. Interface with OSU Consortium Partners occurs primarily through identified campus representatives on each campus. Their project contributions are formalized through annual subcontract agreements that cover management personnel, degree training, collaborative research and capacity building inputs. Each year of the project, the ME has convened an OSUC planning workshop on the OSU campus. The objectives of the workshop are: 1) update OSUC members on the progress of iAGRI; 2) seek input from OSUC campus representatives about how to improve performance; 3) provide a forum for their interaction about project activities.

3. Co-management of the Collaborative Research Program. The 9 collaborative research programs in place to date required the ME to identify OSUC scientists to collaborate with those from SUA and Ministry of Agriculture, Food Security and

Cooperatives (MAFC) on composing the research background papers on each theme then, developing competitive proposals and budgets. The ME identified external reviewers to evaluate these proposals. Budget administration for participating OSUC partners has also been by the ME.

4. Co-management of the degree training program. An important role of the ME is degree student placement, visa processing, and monitoring. The ME is responsible for placing and monitoring Tanzanian students in the USA with OSUC partners and in India at PAU. Currently the ME has placed 69 students in the USA and 6 in India. Placement requires finding appropriate faculty advisors and providing tuition support through subcontracts and co-approving and administering student research proposals and budgets with the PMU. Visa processing through the USAID TraiNet system for all students and Tanzanian visitors coming to the US is managed by the ME. This also includes arranging all international and domestic travel.

5. **Interface with relevant actors in Washington, D.C.** The ME has maintained contact with USAID Washington, BIFAD, APLU and the World Bank. The ME arranged and accompanied the SUA VC, DVC Academic and Director of Research on visits to Washington.

The ME has also networked with NGOs and Development Partners from North America and Europe that serve in Tanzania and the East African Community in order to define and act upon opportunities to leverage resources contributed by each in support of programs that complement iAGRI goals and objectives.

6. **OSU campus outreach**: The ME is responsible for maintaining support for the project on the OSU campus. To create cross-campus alliances at the beginning of the project necessitated establishing legal standing in Tanzania to facilitate the flow of funds. To do this the IPA/OSU formed an affiliated, non-profit entity in Ohio through the Global Gateways and registered it as a foreign corporation doing business in Tanzania. The OSU Board of Trustees approved the creation of the company at its June 2011 meeting.

Additionally, the IPA Director must report directly to the Vice President for Agricultural Administration and Dean of CFAES and to the Vice Provost for Global Strategies. Linkages with other colleges are also encouraged and the ME has engaged 4 other colleges in iAGRI activities including the Colleges of Veterinary Sciences, Education and Human Ecology, Fisher College of Business, and Arts and Sciences.

Communications regarding the project handled through the ME include maintaining link on IPA website, articles for the OSU and popular press, and posters prepared by the IPA communications officer.

These linkages assist in the development of research projects and training / outreach programs that align with OSU-wide initiatives and complement iAGRI goals and objectives and take advantage of OSU capabilities to provide opportunities for OSU faculty and students to become more "international development" savvy as part of their research and outreach experiences.

6. **Grants & Contract Administration Responsibilities**
   o Develop and manage fiscal activities and procedures on behalf of the iAGRI Project Management Unit located in Morogoro, Tanzania. This includes approvals, guidance and troubleshooting for proposed expenditures and project activities.

   o Manages annual iAGRI budget preparation, analysis, forecasting as well as annual, quarterly and ad hoc reporting as needed.

   o Manages HR related functions and for OSU, IPA positions within iAGRI.

   o Provide project procurement services including the issuance of purchase orders, development and execution of sole source justification documentation per OMB A-110, OMB A-21 and university requirements, consultant agreements and vendor compliance.

   o Develop and approve project sub award, cash advance requests/justifications, and sub awards implementation and ongoing award administration. Currently, the iAGRI project has 10 international and domestic sub awards.

   o Analyze and audit costs and expenditures and provide planning guidance to ensure award compliance.

   o Oversee internal and external audits for all iAGRI project activities and expenditures, to assure compliance and accountability and promptly address and identified issues.

   o Serve as a liaison with the Office of Sponsored Programs, university offices, project partners, CFAES offices, departments and central administration.

   o Serves as liaison and point of contact to federal and non-federal agencies and subcontracting institutions.

   o Identify and resolve grants administration issues using knowledge of laws, regulations, and the policy at the university, federal and agency levels, precedent cases, and other requirements which effect grant program administration.