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USAID
Higher Education
Solutions Network

Global Center for Food Systems Innovations Michigan State University

First Round Innovation Grants - 2013
Request for Applications



MICHIGAN STATE

UNIVERSITY



GLOBAL CENTER
FOR FOOD SYSTEMS INNOVATION

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I. Purpose

The Global Center for Food Systems Innovation (GCFSI) is one of eight new development labs funded by USAID in their Higher Education Solutions Network (HESN). Through HESN, USAID hopes to harness the intellectual capacity of American and international research and educational institutions to help solve the most pressing global development problems. Michigan State University's lab focuses on generating solutions and transforming global food systems in response to population growth, climate change and urbanization.

The core of the GCFSI mission is finding, incubating and evaluating new and potentially disruptive knowledge and technology based solutions to development challenges. This request for applications (RFA) is seeking applicants who can help create innovation in the global food system.

For this inaugural competition, the GCFSI is seeking to increase collaboration, catalyze the formation of multi-disciplinary and multi-institutional teams and build connections within the HESN and other institutions while building capacity for understanding challenges in global food systems.

How to Apply:	Please submit applications to: gcfsi@msu.edu
Basic Eligibility:	This competition is open
Award Amount:	MSU anticipates awarding up to 5 grants with a value of up to \$100,000 each.

Program Contact: Maria Murphy, Program Manager, GCFSI
Email: rodri566@msu.edu
Website: www.gcfsi.isp.msu.edu

II. Timeline

Event	Date
1. RFA Distribution	August 20, 2013
2. Concept Notes Due	September 10, 2013
3. Invitations for Full Proposals	October 5, 2013
2. Full Proposal Application Deadline	November 4, 2013
4. Notification of Awards	December 1, 2013
5. Expected Funds Distribution	No later than January 31, 2014
6. Project Report Due	Quarterly as of date of contract

III. GCFSI Overview

(see www.gcfsi.isp.msu.edu)

The Global Center for Food Systems Innovation is one of eight development labs funded by USAID in their Higher Education Solutions Network (HESN). Through HESN, USAID hopes to harness the intellectual capacity of American and international research and educational institutions to help solve the most pressing global development problems. MSU's lab focuses on generating solutions to the most critical problems facing the developing world's food systems.

The MSU Lab will work with the USAID's field mission experts to apply science and technology to define and solve key problems in global food systems. The team will specifically address three global trends—climate change, rapid urbanization, and the evolution in skill sets needed in food systems.

WHAT MAKES THE CENTER DIFFERENT

The Center leverages MSU's extended network of partners to collaborate with hundreds of experts around the world. Members of the GCFSI team connect with faculty, students, universities, government agencies, non-governmental organizations, foundations and corporations to create multi-continent and multigenerational consortiums.

Core Tenets of the Global Center for Food Systems Innovation

- The GCFSI is a platform to engage students and faculty in creating science, technology, engineering and institutional based solutions to international development challenges.
- GCFSI is dedicated to advancing knowledge and effectively transferring innovations to stakeholders while building the next generation of development scholars.
- Finding, incubating and evaluating new and potentially disruptive knowledge and technology based solutions to development challenges by employing sound science, technology and engineering is the core mission of the GCFSI.
- The GCFSI also serves as a resource laboratory for USAID to increase the agency's efficiency and effectiveness by providing information, analysis and decision support. GCFSI will work closely with the newly created Food Security Innovation Center to align, complement and support food security programs at USAID.
- The GCFSI is integrated in our approach, looking across disciplines, methodologies and approaches to build multidisciplinary, multigenerational and multi-sectorial teams to address development challenges that engage the university, private sector and other stakeholders.
- The GCFSI is a "soft walled" laboratory dedicated to connecting across campus, across the Higher Education Solutions Network and across the globe to the best thinking on transformative solutions to development challenges.
- Gender is a key consideration across all activities of the GCFSI and its programs.
- The GCFSI is dedicated to the goals and objectives of the broader HESN and actively seeks partnerships, collaboration and networking with the network members.
- The GCFSI takes a broad view of innovation that encompasses technology, policy, markets, management techniques, analytics and combinations of these tools.

Megatrend Focus Areas

The Global Center for Food Systems Innovation is focused on three "megatrends" that will influence prospects for sustainable food production and consumption over the next two decades. The megatrends are characterized by several key common themes:

- They are cross border and cross generational phenomena that require long term, regional and global solutions.
- They often are characterized by complex interdependencies and the alleviation of one problem can aggravate another, requiring holistic understanding of the trend its impacts and its connections to other trends.
- They effects of all three are felt acutely in food systems in developing nations.

If ignored, these trends will thwart efforts around the world to achieve positive development goals. If we “bend the trend” toward equitable and sustainable development and build the body of knowledge on how to harness these trends, we can have the largest impact on the productivity of global food systems.

Megatrend 1: Population Growth, Climate Change and Pressure on the Land

With population growth, many farm households face diminishing land holding sizes with little room to expand farms and help meet the growing demand for locally grown food. Also, in many parts of the world, climate change is putting agricultural systems under stress from higher temperatures and increased rainfall variability. GCFSI is seeking to spur innovation in the global food system with climate smart agriculture, carbon mitigation in the food system and climate adaptation in food systems.

Megatrend 2: Rapid Urbanization and Transformation of Food Systems

Rapid urbanization and growing per capita incomes in the developing world are transforming consumption patterns and creating major opportunities and daunting challenges for local farmers, traders, processors, consumers and public officials. GCFSI is seeking innovation that increases understanding and assists in responding to this dynamic environment.

Megatrend 3: Evolution in Skills in the Food System

The Agricultural Education and Training (AET) system in many developing countries is integral to empowering individual livelihood and enhancing institutional capacity. However, it is clear that there are many deficiencies within the current AET system. These deficiencies center around six thematic areas: support for AET, students, curriculum, teachers-faculty, assessment and evaluation and the lack of collaboration across important stakeholder sectors. In many instances, these challenges have reduced the ability of AET to effectively respond to existing and future demands of and threats to the global food system relating to human and institutional capacity development.

Information and Communication Technologies for Development (ICT4D)

With the growing availability of mobile phones, computers, and Internet connections in the developing world, there are new opportunities to apply these technologies to improve food systems in developing countries. The issues pertaining to ICT4D are relevant across the three Megatrends and, as such, are considered a crosscutting activity of the GCFSI. In particular, research is needed to better understand the factors that influence smallholder farmers' adoption of ICT-based services, what impact these services have, and whether services have different implications for men vs. women farmers.

Gender

Food systems are embedded in a social context. The society defines different roles and responsibilities for men and women; determines who owns and has control over critical assets

of production; influences participation decisions as well as the allocation of benefits. The issues raised under each of the megatrends lend themselves to important gender considerations. The GCFSI is seeking innovations that would increase understanding of the general issues identified under each of the megatrends; as well generate knowledge on the gender specific issues relevant to the specific context.

IV. Geographic Focus

East Africa, (including Uganda, Kenya, Rwanda, Burundi, Tanzania, Zambia, Mali, Malawi, and Mozambique) is the geographic focus for this round of innovation grants. Applicants must demonstrate a thorough understanding of the East African context and demonstrate clear potential for their work to spur innovation in East Africa.

V. Innovation Questions

The GCFSI is seeking gap filling knowledge, and initial projects that build deeper understanding of the facets of the megatrends. Applicants are urged to develop projects that fill knowledge gaps in addition to developing tools (evaluation rubrics, knowledge dissemination channels, etc.) that assist in expanding the impact beyond the initial project. Applicants must address one or more of these questions and applications that are systematic and address the inter-linkages between the questions are strongly encouraged.

1) How can agricultural systems analysis be applied to guide investment and to diagnose constraints, opportunities and scalability of innovations to support resilient and sustainable farming?

Rationale for Question: Innovations to support food security in a changing climate, with a focus on production systems, and the potential for sustainable intensification and/or sustainable extensification of those systems across Eastern Africa requires development of systematic assessment frameworks and tools for commodity production systems. Example projects include:

- An assessment via an agricultural system’s framework of maize-based farming
- An easily accessible, understandable and repeatable rubric for evaluation of innovations in that system across East Africa.

2) Is it possible to construct significantly better uncertainty estimates for food production and food production risk by developing integrated social/crop/livestock/climate models?

Rationale for Question: Reducing uncertainty in crop production models can greatly enhance the utility and the validity of adaptation planning. We are seeking an exploration of the sensitivities of the systems that evaluate uncertainty or risk under plausible future climate scenarios at local to regional scales in a repeatable framework targeted at strategic planning. Example projects include:

- Integrated assessments and/or models designed to estimate **uncertainty** in the climate / agricultural / human decision-making system and to identify possible areas to reduce uncertainty at local and regional scales for:
 - Livestock systems or
 - Cropping systems.
- An integrated assessment framework for assessing uncertainty in crops or livestock, climate, land use, and human decision making/management models that may serve as a basis for enhancing the utility and relevance of those models.

- An exploration of the sensitivities of the systems that evaluate uncertainty or risk under plausible future climate scenarios at local to regional scales in a repeatable framework targeted at strategic planning.
- A framework including the identification of thresholds/tipping points or of transformational adaptive states where food production risk or food security risk is significantly reduced.

3) Is it possible to significantly reduce vulnerability and increase resilience of small-holder agriculture in East Africa through the design and implementation of small-scale irrigation projects?

Example projects include:

- Creation of an online platform that documents existing small-scale irrigation technologies being practiced in East Africa and could compare the advantages and disadvantages of small-scale irrigation technologies would fill a knowledge gap related to irrigation and resilience.
- Identification of technological / social / economic problems concerning implementation and adoption of small-scale irrigation technologies.
- Evidence based recommendations of socially acceptable and economically viable small-scale irrigation technologies for scaling.
- Identification of the intervention measures required for the large-scale adoption of recommended small-scale irrigation technologies.
- Estimation of adoption costs in different regions; assist in the development of design criteria for recommended small-scale irrigation systems, and assist in the identification of areas best suited for adoption with respect to sustainability, e.g. groundwater resources.

4) Where are the arable lands of East Africa? Where are the marginal arable lands? How might climate changes improve or degrade arable and/or marginal lands?

Rationale for Question: Synoptic, reliable, and accurate land use and cover data particularly focused on arable lands is necessary for vulnerability management, effective crop modeling and as a base layer for regional climate models. Moreover, the packaging of data into easily accessible and easily understood delivery mechanisms for broad knowledge sharing is also lacking. Example projects include:

- Methodologies for the efficient production of accurate arable lands data for East Africa
- The creation of broad land use and land cover dissemination channels that could serve to enhance regional strategic planning and the development of enhanced strategies for climate change adaptation.
- Products should demonstrate accuracy particularly for agricultural classes, currency, repeatability with existing or planned satellite platforms, and synoptic coverage.

5) What mechanisms could be developed and used to enhance the social equity of vulnerable populations responding to climate change in the East and Southern African context via rural to rural or rural to urban migration? Related subtopics include: how do we best empower migrants, especially women, through social networks to achieve economic viability in these settings?

Rationale for Question: In the East African context, more reliable data is needed on who engages in rural-urban migration; household- and community-level effects of urban remittances on agricultural practices that respond well (or not) to climate changes; analysis and policy

actions to understand migration as a gendered process and how that affects food production through analyzing different patterns, drivers and impacts on men and women and the relationship between the role and status of woman in the region and gendered migration; and effective resettlement assessments to include well-being/quality of life of pre- and post-resettlement. Example projects that build our understanding of facts of the question include:

- Development of rural-urban resource networks to improve how agricultural practices in sending communities respond to climate change.
- Better measures of population movements over space and time to include spatial models or mapping solutions.
- Evidence based report on policy actions to address social practices that discriminate migrants based on gender and other social/cultural norms.
- Measures to address the misallocation of resources for effective resettlement
- Innovative solutions to strengthen migrant social networks at rural origins and the impact of those networks on agricultural production.
- Innovative solutions to re-establish social networks at urban destinations and a report on how re-establish social networks can be a source for economic development both at sources and destinations.

6) What are the structure, behavior, and performance of the food processing / wholesaling / packaging / logistics sector in East Africa? How are multinational, regional, and local firms re-organizing their procurement and market strategies, including forms of vertical and horizontal coordination, as a result of urbanization and retail transformation?

Rationale for Question: Understanding structure and performance of the urban food system opens the door to designing innovation systems that can lead to a broader, safer, higher quality and more reliable supply of food to urban areas. Initial steps in this direction require addressing questions such as how are processing and packaging technologies co-evolving in these sectors? What effects are these changes having on the cost, variety and quality of food available to urban consumers? What is the relative orientation of this sector of the food system to domestic and regional demand compared to international export demand, and where are the prime growth opportunities in both? Example projects include:

- New empirical research is needed in East Africa spanning a range of food system transformations that (a) characterizes the evolving structure (who is doing what and has what market shares), behavior and performance of the food processing / wholesaling / packaging / logistics sector, (b) highlights the role of multi-national (western and non-western), regional and smaller local players in this sector, and (c) establishes the importance of international export- vs. domestic and regional demand in driving this sector's growth.
- An integrated assessment of individual countries in a repeatable framework will enable better adaptation and planning for food system transformations.

7) What are the key characteristics of wholesale facility ownership, logistics management, enterprise management structures and clusters of establishments that result in high use and value added for consumers, producers and traders, and what are the conditions and approaches that allow these structures to come into being? Which of these models have the potential for expansion and adaptation to climate change and population increases in urban areas in East Africa, and what are the barriers to expansion?

Rationale for Question: Conceiving, designing and building new or improved wholesaling infrastructure that is used by traders, adds value for consumers and farmers and addresses municipal authorities' concerns about congestion, health and crime is a high priority for rapidly growing African cities. Given the vastly expanded populations these structures will need to support, understanding of successful ownership and management and logistics structures for wholesale facilities is an important first step. Example projects include:

- Empirically documenting a range of successful structures, explaining how they emerged, and linking measurable performance indicators to them allows for rapid evaluation of system health and potential for adaptation.
- Empirical field research which identifies these success factors is an important initial step. This may pave the way for the creation of a knowledge sharing platform that can disseminate the range of success stories, explains how they emerged and links measurable performance indicators to them provides a baseline for expansion of successful models.

8) *What commodity supply chains are growing most rapidly in and around urban areas? What specific activities in these chains are receiving the investment? What types of firms are making that investment, and what role is public sector investment playing in spurring productive private investment?*

Rationale for Question: An assessment rubric that can assist in prioritizing public policy and investment priorities to more effectively link close-in food production and processing areas to urban markets is a key tool in strategic planning for urban food systems. Example projects include:

- Field research that characterizes the food system transformations taking place within a defined radius (perhaps up to 150 km) of 3-4 developing country cities, including the interaction (positive or negative) of public policies and investments with private sector investment in meeting growing and changing urban demand.
- An assessment framework and case study applying it, of the policy and investment potential in these systems, is an important information gap in developing policy and investment strategies in East Africa.

9) *What role does urban and peri-urban agriculture currently play in food supply to African cities and how is this role likely to evolve over time? What is the potential of urban agriculture to fill niche food system functions such as micronutrient supply, fresh vegetable provision, alleviating concerns regarding food deserts, or expanding food availability and opportunities for the poorest residents?*

Rationale for Question: There is a dearth of research that documents the quantitative importance of different supply zones for the supply of food to cities and of different sources of food supply to urban residents in a selected set of developing country cities. The overall goal of the work will be to anchor thinking about urban agriculture's role in urban food supply using scientifically developed, disaggregated and representative information about the current role that urban production agriculture plays in a city's food supply, creating a baseline for understanding its future potential. Example projects include:

- New research that (a) identifies and disaggregates the market shed – the spatial extent of supply areas – of several key commodities (main cereal staples, main fresh produce staples, milk, poultry and other meat) for selected developing country cities

and (b) the quantitative importance of different sources of supply among poor urban residents.

- Quantifying the importance to the cities of production located in the cities themselves, in close-in areas being affected by the development dynamic of the city and in more distant rural areas.
- Quantifying the importance of, among other channels, own production, direct purchase from urban farmers, market purchases, rural food remittances and other exchange mechanisms; the study should be capable of quantifying this data by income levels or poverty status of households.

10) What is the distribution of consumer and producer Willingness to Pay (WTP) for food safety across a range of cultural settings and levels of development? What factors drive these distributions, and what does this imply about the future evolution of consumer WTP for food safety in East Africa?

Rationale for Question: Designing food safety systems that are appropriate to, and evolve with, a country's context socio-economically and in light of cultural practice becomes increasingly important as population and incomes rise. The overarching goal of GCFSI is to examine how food safety systems need to evolve in response to the changing food system including policy, awareness, education, food testing regimes and food safety technology implementation. An initial focus of this holistic effort is the examination of the market for food safety, the ability and willingness of customers to pay for food safety, and how these are likely to change in the future with rising incomes and other socio-demographic changes. Example projects include:

- Estimation distributions of consumers' Willingness to Pay (WTP) and producers' Willingness to Accept (WTA)
- Generation of quantitative knowledge of the socio-economic, demographic and other factors that determine consumer and producer behavior. This serves to ground the larger needs assessment within a key potential constraint.

11) What networks of food systems expertise currently exist within the different universities, vocational schools and training centers in East Africa with respect to science, technology and engineering, as well as food and agriculture?

Rationale for Question: Discovering, characterizing and mapping networks for knowledge sharing are key elements in adapting workforce skill sets to climate change and urban pressures on the food system. We are interested in discovering what connections currently exist and the areas and levels of expertise, credentials, the strength of the networks, and connectivity to USAID programs and centers, as well as connectivity to other development organizations. We envision a system that builds channels for sharing based on innovative assessments of network strength and quality of the members. Example projects include:

- A digital network map that captures these and other factors in East Africa in a user friendly and accessible way would be a springboard for effective knowledge sharing and rapid skills change.

12) What is the entrepreneurial environment in East Africa specific to the food system?

Rationale for Question: Incentivizing and supporting entrepreneurship and new business start-ups is a critical component of a broader food system workforce educational development strategy that will eventually include higher education, vocational and technical training and

developing strategic linkages throughout the educational system. Movement of businesses from the informal sector to the formal sector can create value and wealth, as well as expanding jobs and adding to the diversity of business types and sizes with the food system. While a host of factors are involved in developing a thriving entrepreneurship sector, it is hypothesized that in the right business environment properly targeted training and education can play a role in boosting new business creation. Research to better understand small enterprise development is the initial component of the broader GCFSI Megatrend three activities in workforce development. We need to better understand the entrepreneurial environment in the food system in the region including:

- Case studies of small start-ups that include both men and women-owned businesses that have demonstrated successful efforts to establish themselves as viable and competitive businesses. Are the constraints of women, men and youth entrepreneurs the same or different? What about their ability to employ others?
- Mapping of organizational assets in East Africa that support entrepreneurial development in the food and agriculture sector.
- Mapping the small and medium-sized businesses in East Africa involved in the food system.

13) What innovative ways using social media and other ICTs, either through new or established networks, can be utilized to develop a systematic and sustainable method for following up on graduates of food systems programs?

Rationale for Question: Keeping track of graduates of higher education is a notoriously difficult problem; moreover, understanding the applicability and quality of programs through the career outcomes of graduates is a long term challenge. A value-added benefit of tracking graduates is to better measure capacity building efforts in higher education by understanding the retention of graduates in countries and regions where they were educated. The creation of a new suite of tracking tools that leverages social media helps create community, provides a mechanism for capturing graduate stories and provides a platform to understand medium and longer term training and education outcomes. Example projects include:

- Development of an innovative process for maintaining relationships with graduates can provide important feedback with regard to program quality and effectiveness in addition to feedback on whether programs offered are well tailored to the workforce's demand for talent. Most relevant to our work is to utilize graduate networks to facilitate cross-sector collaboration.

14) What factors inhibit or encourage the successful adoption of new ICT services aimed at improving the livelihoods of smallholder farmers and other food system actors?

Rationale for Question: There is a need to better understand adoption patterns for value added agricultural ICT services. Many services aimed at "bottom of the pyramid" farmers are introduced with great fanfare but are not taken up by the farmers they are designed to support. Example projects include:

- A rigorous but focused assessment of the factors that contribute to adoption and successful use of a particular value-added ICT service by target actors in the food system value chain is needed as an initial step in developing high value ICT tools.
- Identification of both barriers and facilitators to adoption of the ICT-based value added agricultural service, including a realistic assessment of whether the service as designed

can be sustained through fees or other funding sources in order to inform the private sector, NGOs and other policy makers.

15) What impacts do value-added agricultural ICT services have on the livelihoods of smallholder farmers and other actors in food system value chains?

Rationale for Question: There is a need for a better assessment of the impacts of using value-added agricultural ICT services on smallholder farmers and other actors in the food system value chain. Outcome measures must go beyond demonstration of usage and include both intermediate outcomes such as on farm productivity and broader outcomes of interest to the development community such as impacts on farmer income and quality of life. Example projects include:

- A focused and rigorous assessment of the impacts of a particular value-added agricultural ICT service creates a baseline of outcomes that inform future strategy development. This research must identify the mechanisms that explain who benefits, in what ways, why some benefit while others do not, and what implementation approaches improve likelihood of benefits.

16) What are the challenges related to differential access, adoption and usage of ICT's due to gender?

Rationale for Question: There is a need to carefully investigate how new ICTs can support women actors in the food system value chain as the design and implementation of new ICT's may have fundamental outcome constraints attributable to gender. For example, there is evidence that the use of mobiles by women farmers can enhance outcomes, but their access to and use of mobiles and other ICT services are very constrained. Moreover, the current design of services may discourage women farmers from successfully adopting and using services. Example projects include:

- An assessment of both the challenges for women as well as the strategies to empower women by providing access to ICT-based value added services that incorporate gender-sensitive features fills a key knowledge gap in creating successful ICT strategies.
 - This research must identify specific constraints faced by women farmers – as well as women working in other segments of the food system – and tests alternative strategies for designing and deploying ICT-based services that empower women.

VI. Application Instructions

This competition is composed of two phases, concept notes and full proposal.

Phase One Concept Note

Applicants will submit a two page concept note detailing their idea. Concept Notes must be received no later than 5 pm Eastern Daylight Time of the United States on **September 10, 2013**.

A suggested outline is:

- a. Purpose of the project
- b. Innovation question(s) from this RFA addressed
- c. What the innovation(s) and the new knowledge created will potentially enable
- d. Statement as to the sustainability and future steps for the research
- e. PI/Team expertise overview

- f. Budget sketch, a detailed budget is not required at this stage, only a sketch that includes Salary, Fringe, Travel, Equipment, Supplies, Subcontracts, Other Direct Costs and Indirect Costs. Admissible indirect costs are up to 26%, to be included as part of the \$100,000.

Upon selection and notification, selected applicants will be invited to submit a full proposal in phase two.

Phase Two Full Application

Applicants with successful concept notes will be invited on or about **October 5, 2013** to submit full applications due on or before **November 4, 2013**. Full proposals will be accepted only from invited applicants. All applications must be submitted in English to gcfsi@msu.edu by 5:00 PM Eastern Daylight Time of the United States on **November 4, 2013**. The applicant will receive a confirmation email upon submission. Each proposal must include all of the elements listed below. Only applications that include all the information below will be considered.

1. **Abstract.** In one concise page, summarize all relevant aspects of the proposed research, with special attention to its objectives and methods (1 page).
2. **Proposed Research.** Explain the proposed research and how it relates to GCFSI goals (up to 5 pages).
 - a. Purpose of the project
 - b. Innovation question(s) from this RFA addressed
 - c. What the innovation(s) and the new knowledge created will potentially enable
 - d. Statement as to the sustainability and future steps for the project
 - e. Include team composition and rationale/expertise for team members.
 - f. Detailed budget
3. **Curriculum Vitae (CV).** The application must contain a curriculum vitae for each of the principal investigators. The CV should include information on the applicant's education, relevant prior and current employment (if any), honors received, research interests and long-term professional goals (up to 2 pages per CV as a separate appendix).
4. **Past Performance.** Applicants shall briefly describe their general past performance, their past performance on similar activities (size and scope), and the past performance records of major Subcontractors. If Applicant or their proposed Subcontractors encountered problems on any of the referenced projects, they may provide a short explanation and the corrective action taken (2 pages as a separate appendix).
5. **Letter(s) of Support.** Letters from team members, collaborating institutions and USAID mission or programmatic staff that support the approach and the proposed deliverables. Multiple letters of recommendation may be submitted but are not required (3 letters maximum, 2 pages each as a separate appendix).
6. **Invitation Letter from Host University or Institution.** If work is to be done outside the United States, applicants should submit a letter of invitation from the host institution (2 pages as a separate appendix).
7. **Budget.** The budget must detail all estimated expenses for the grant period, including international travel costs, visa fees, meals and incidentals calculated based on the published rates of the United States Department of State for the relevant location,

emergency health insurance (required), indirect costs (maximum allowable 26%) and ground transportation. Grant funds must be used to carry out the project within a period of 12 to 18 months to start as of the date of contract signing. An application proposing a budget higher than \$100,000 will be deemed nonresponsive to the Request for Applications and will not be accepted for review. Indirect Costs above 26% will not be admissible. Air travel to and from the US must comply with the provisions of the Fly America Act as amended by the Open Skies Agreement. Specifically, air tickets must be purchased from a U.S. carrier or from a U.S. or EU carrier if the traveler will transit an EU country.

VII. Special Requirements (for full proposal only)

Conflict of Interest: Recipients will be required to disclose any real or potential conflicts of interest during the post award process as per MSU conflict of interest policy, see: <https://coi.msu.edu/>.

Research involving Human Subjects: If the research involves human subjects the applicant must show approval by an IRB review board or certify that the research will comply with MSU IRB policy. Found at: <http://www.humanresearch.msu.edu/>

Data Sharing: Data sharing is essential for expedited translation of research results into knowledge, products and procedures to tackle global development challenges. MSU and USAID expect the timely release and sharing of research data for use by other researchers and development practitioners. Awardees are expected to develop data sharing that include release timetables and platforms or communicate to MSU GCFSI an acceptable rationale why data sharing will not be possible.

MSU reserves the right to archive information in an expertise database for the purposes of future collaboration building.

To reduce duplicate efforts and to ensure projects are new, applicants for Innovation Grants must demonstrate their knowledge and understanding of the literature, evidence base, and current and existing USAID projects in their problem area. A list of projects that should be reviewed for redundancy is provided in Appendix one.

Applicants should take into account what may be accomplished with an Innovation Grant given the funding available and period of performance. The potential rigor of the analysis will be a major criterion of evaluation, where appropriate.

Applicants in the ICT4D area, should specify both the technology they will focus on and the agricultural tool or service (e.g. a phone app that will assist in applying the right amount of fertilizer, or a radio program that will assist with growing the right crops). Applications must demonstrate a sound knowledge of the gender situation of the particular context. This would include a gender mapping of activities, roles and responsibilities, ownership and control over production resources, etc. (evidence of a gender analysis – could be from a desktop review).

Applications should demonstrate an excellent understanding of how existing gender relations in the specific context would influence research planning, the conceptualization of research problem, the analytical framework and type of data to be collected.

Applications should, in addition to the general, identify gender-based opportunities and challenges, map gendered-impacts and propose gender sensitive solutions to food system challenges.

As appropriate, applications should differentiate the issues identified as well as the responses for different kinds/groups of men and women.

Alternative models designed to combine subject matter specific framework of analysis and gender analysis framework in grasping the complex food systems challenges are strongly encouraged.

Applications should identify, as appropriate, indicators that could be used in measuring and differentiating the impact of the proposed innovative solution by gender and other relevant categories.

All projects are requested to be 12 to 18 months in duration.

Each application will be screened for eligibility and completeness upon receipt. Any applicants whose application is deemed ineligible will be notified by e-mail. Applicants should note the following general rules for this competition:

1. Only applications submitted to gcfsi@msu.edu will be accepted.
2. All applications must be complete when submitted. Applications that do not have all required elements as indicated in this program announcement by 5 pm Eastern Time of the United States on November 4, 2013, will be ineligible.
3. Applicants may submit modifications to their applications as long as they are received as full applications no later than 5 pm Eastern Time of the United States on November 4, 2013.
4. If applicant's circumstances change significantly after application submission such that the project can no longer be carried out as proposed, the applicant must notify MSU in writing to gcfsi@msu.edu and indicate that they are withdrawing the application from the competition.
5. MSU reserves the right to request additional information from applicants if necessary.
6. The full application should be submitted to gcfsi@msu.edu.

VIII. Selection Process

Review of eligible applications will follow the criteria listed below:

- 1. Technical/Scientific merit:** Demonstration of a clear understanding of the subject and its implications on food system innovation, the likelihood that the proposed research will have a substantive and positive benefit to society in general and to developing nations in particular.
- 2. Personnel Capacity:** The expertise of the applicant(s) in carrying out the proposed research.
- 3. Research Plan:** The technical soundness of the proposed approach, the clarity and rationale for the stated goals of the project, the adequacy of technical resources available to accomplish the work, and the soundness of the plan to fully achieve the project within the time allotted.
- 4. Alignment with HESN and GCFSI objectives:** Relevance of the proposed work to the goals of the HESN and the GCFSI (including gender-responsiveness), potential for proposed work to facilitate new collaborations and innovation, and the likelihood that the work may lead to scaling innovation in the global food system.

The competition results will be announced on or before December 1, 2013.

IX. Definitive Version of This RFA

In the case that MSU amends or make corrections and clarifications to this announcement, amendments will be posted at www.gcfsi.isp.msu.edu

X. Additional Information and Support

Inquiries regarding this Request for Applications should be directed in English to Maria Murphy, GCFSI Program Manager at rodri566@msu.edu. Applicants are requested to identify themselves in all correspondence and put the phrase "GCFSI- Innovation Grant - I" in the email subject line. MSU at its sole discretion may choose not to disclose certain information in a response to any question or query, if in our view such details would affect the fairness or transparency of the competition or convey an undue advantage to an applicant. MSU also reserves the right to disclose to all other applicants an answer or clarification to a question from an applicant in the interest of fairness, objectivity, and transparency of this competition.

XI. Full Proposal Checklist

Checklist of the Application Contents	
1.	<input type="checkbox"/> Abstract
2.	<input type="checkbox"/> Proposed Research Narrative
3.	<input type="checkbox"/> Curriculum Vitae
4.	<input type="checkbox"/> Past Performance
5.	<input type="checkbox"/> Letters of Support
6.	<input type="checkbox"/> Invitation Letter (as applicable)
7.	<input type="checkbox"/> Budget
8.	<input type="checkbox"/> Documentation on Human Subjects Research (if applicable)

Appendix One: Selected Programs Recommended for Review

- USAID's Africa RISING
- Modernizing Extension and Advisory Services
- DFID's Research into Use
- IFAD's Modernizing African Food Systems
- The Connected Farmer Alliance
- GSMA Development Fund's mWomen program
- The ICT in Agriculture Sourcebook