

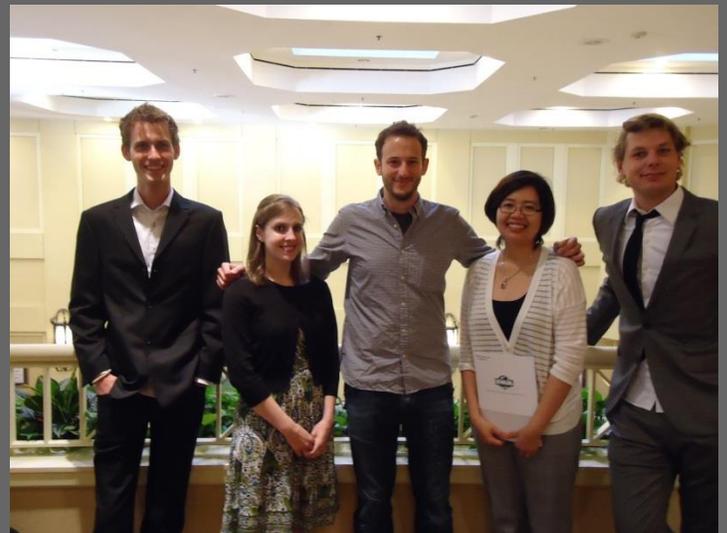


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# HIGHER EDUCATION SOLUTIONS NETWORK QUARTERLY REPORT

MICHIGAN STATE UNIVERSITY  
GLOBAL CENTER FOR FOOD SYSTEMS INNOVATION (GCFSI)  
AGREEMENT NO. AID-OAA-A-13-00006



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## Acronyms

<b>AFRE</b>	(Department of) Agricultural, Food, and Resources Economics at MSU
<b>ArcGIS</b>	Geographic Information System
<b>BFS</b>	USAID Bureau for Food Security
<b>DFID</b>	Department for International Development (United Kingdom)
<b>DSI</b>	Decision Support and Informatics The Fostering Agriculture Competitiveness Employing Information Communication Technologies
<b>FACET</b>	Technologies
<b>FSHN</b>	(Department of) Food Science and Human Nutrition at MSU
<b>GCFSI</b>	Global Center for Food Systems Innovation
<b>HESN</b>	Higher Education Solutions Network
<b>iAGRI</b>	Innovative Agricultural Research Initiative
<b>ICT</b>	Information and Communication Technologies
<b>ICT4D</b>	Information and Communication Technologies for Development
<b>IR</b>	Intermediate Result
<b>LU</b>	Lincoln University
<b>MIT</b>	Massachusetts Institute of Technology
<b>M&amp;E</b>	Monitoring and Evaluation
<b>MSU</b>	Michigan State University
<b>MT1</b>	Megatrend 1: Population Growth, Climate Change and Pressure on the Land
<b>MT2</b>	Megatrend 2: Rapid Urbanization and Transformation of Food Systems
<b>MT3</b>	Megatrend 3: Evolution in Skills Required by Food Systems Transformation
<b>O1</b>	Objective (1, 2, 3 or 4)
<b>OST</b>	USAID Office of Science and Technology
<b>RAID</b>	Redundant Array of Independent Disks
<b>SUA</b>	Sokoine University of Agriculture- Tanzania
<b>TERI</b>	The Energy Resources Institute - India
<b>TSC</b>	Translational Scholar Corps
<b>UC</b>	University of California (at Berkeley)
<b>US</b>	United States
<b>USAID</b>	United States Agency for International Development
<b>USDA</b>	United States Department of Agriculture
<b>WUR</b>	Wageningen University - The Netherlands

## Executive Summary

Building on the success of the GCFSI Launch Event held March 21 and 22, 2013, GCFSI launched operations with strength, focus and direction. The Launch Event provided the whole team, including GCFSI partners from Sokoine, Wageningen, TERI and Lincoln, as well as USAID an opportunity to converge in the same location, work on refining goals and direction and leave Michigan with clear marching orders.

During this quarter, the GCFSI team focused on conducting the research for the first round whitepapers due September 2013. The teams developed literature reviews, and supported their research with various data gathering trips to Africa. In May 2013, Tom Smith and John Dirx, from Megatrend 3 traveled to Tanzania to meet with our partners in Sokoine University of Agriculture. In June, Charles Steinfield, Susan Wyche and Dominic Nangea all traveled to Kenya and Tanzania to conduct research for the ICT4D component.

We had a lot of activity in the area of student involvement. We issued 6 student internships, 12 study abroad scholarships, and hired over 10 research assistants. Our Translational Scholar Corps took shape with the support of Tom Smith, and students Ayesha Razzaque and Ali Hussain. GCFSI students collaborated in the same space, took the lead in various collaboration meetings, and supported the launch of the GCFSI website, GCFSI Facebook page and Twitter accounts.

We worked extensively with USAID to develop the final M&E plan for the center, aligning metrics, objectives and goals to the HESN framework. This effort was launched with a visit of the GCFSI directors to the Lab Directors meeting held in Washington, D.C. in early April. This platform provided all HESN directors an opportunity to connect, interact, share ideas and develop a collaboration base.

During the months of May and June, the GCFSI management worked hard to develop a process for the first round of innovation grants. Given the shortened timeline of year one, USAID and MSU agreed to have a simplified process for this first round of grants, to be managed by the MSU Vice-President for Research. With a simplified procedure, this first round will be expected to be limited to no more than \$500,000 in grants, with RFA being developed using data gathered from the problem definition statements, which are an ad-hoc deliverable from GCFSI developed specifically for this first round of grants. The RFA is expected to be issued August 2013.

## Part 1: Major Milestones and Events Completed

### 1.1. Milestones

There were achievements and milestones reached across the various work streams of the GCFSI project. In general, the work focused on literature reviews, research, data gathering, process development, analysis and issue framing.

In particular, we focused on the following tasks:

1. Broadened teams to engage more stakeholders.
2. Conducted research, literature review and data gathering for the whitepaper development and problem definition statements.
3. Completed the communication strategy for GCFSI.
4. Submitted papers for the Food Security Conference to be held in the Netherlands, September-October 2013.
5. Conducted partner visits and potential hub visits (Tanzania and Kenya trips).
6. Fully established the DSI Unit.
7. Started to collect, store and synthesize data from various sources (USAID, WB, FAO, etc.).
8. Started the design and schema of an informatics management structure for DSI.
9. Launched the development of the online tool to access information processed by DSI analytics.
10. Defined a process to issue the RFA for the first round innovation grants that was discussed and vetted with USAID.
11. Worked with the MSU Vice-President for Research to prepare the RFA process for year one grants.
12. Wrote a draft RFA for student innovation grants (see Appendix 1).
13. Completed a selection process for 6 summer internships, and placed students with MT teams.
14. Issued 12, \$500 study abroad scholarships.
15. Engaged a team of over 40 students in GCFSI research and work.
16. Engaged private sector entities interested in supporting GCFSI work.

### 1.2. Events

- April 3-5, 2013: HESN Director's Meeting in Washington, D.C.
- May 5-17, 2013: Megatrend 3 Visit to Tanzania.
- May 21, 2013: Megatrend 3 visit to Chicago Council Global Food Security Symposium, Washington, D.C.
- June 6-21, 2013: ICT4D visit to Kenya and Tanzania.
- June 16-20, 2013: Megatrend 2 and Students participated in the IFAMA conference, Atlanta, GA.

### 1.3. Publications

- GCFSI Newsletter June, 2013.

## 1.4. Communications

- Updated the temporary GCFSI Website: [gcfsi.isp.msu.edu](http://gcfsi.isp.msu.edu).
- Updated GCFSI Facebook Page:  
<https://www.facebook.com/GlobalCenterforFoodSystemsInnovationsGCFSI>.
- Upkeep of the GCFSI Twitter Account:  
<https://twitter.com/GCFSI>.
- Created GCFSI LinkedIn account.
- Developed 3 slicks for GCFSI:
  - What is GCFSI
  - Details about Megatrends
  - The DSI
- Developed the GCFSI Graphic Element (see graphic element to the right)
- Hired two students (one PhD and another graduate) from the college of Communication Arts and Science to support the GCFSI communications component.



## Part 2: Description of Key Activities

### 2.1. Quarter Objectives

The main objective and focus of GCFSI for Quarter Three was to conduct significant amounts of research, literature review and data gathering to be able to develop a problem definition document in Late May. We also focused on consolidating our student teams and defining their operations via the TSC, and launching GCFSI to the world using various media such as Facebook, Twitter, Learning Labs, etc. A significant amount of time was spent developing the M&E plan and reshaping it to adjust to USAID's framework, with objective of having a final M&E framework approved in July.

Specifically, the **Megatrend teams** had the following objectives: 1) develop a whitepaper that identifies current data, methods and knowledge gaps and determines critical research needs that specifically address food systems challenges in priority developing countries, 2) develop a formal problem statements document directly related to the whitepaper generation process, and 3) build teams and connect with stakeholders to accomplish 1 and 2.

As part of the crosscutting themes, the **ICT4D** team had four objectives in this third quarter:

- Continue to assemble and review literature and data sources related to ICTs in agriculture and food systems in developing country contexts, aligned to the three Megatrends.
- Create a set of problem definitions related to ICT for development based on their review of literature and discussions with experts that will be used as input in the first year RFA process.
- Identify potential sites and relevant participants for a case analysis of use of ICTs in agriculture in our target region, and specifically in Kenya and Tanzania.
- Visit Kenya and Tanzania to explore ICT use among smallholder farmers in the field and identify ongoing innovative uses of ICTs in agriculture in these settings.

- Visit our partner organization, Sokoine University of Technology to forge ties with researchers there who are doing work in the area of ICT in agriculture.

Another crosscutting team, the **DSI team**, focused on the following objectives:

- Process and place the data into Microsoft SQL Server databases and ESRI ArcSDE geospatial databases
- Develop dynamic and data-agnostic visualizations in ArcGIS for use with any geospatial databases
- Deploy the search-agent website for use outside of the DSI

Finally, the **TSC team**, focused on giving their operations structure via a draft operating manual, organized the GCFSI students into one group with specific goals, meetings and deliverables, and helped to connect students from the various areas of the project.

## 2.2. Summary of Key Activities

The key activities in the third quarter were directed at conducting research for the East Africa whitepapers and problem definitions. This included solidifying the teams, hiring all the necessary staff including student researchers, concreting the relationship with GCFSI partners, conducting various data gathering trips to East Africa and conducting literature review from various sources.

### 2.2.1. Megatrend One: Population Growth, Climate Change and Pressure on the Land

The whitepaper from MT1 will be a guiding document for future research and solution innovations development to address emerging issues related to food productions under increasing pressures of climate change and population growth. During the past quarter, the objectives of MT1 revolved around 1) enhancing the sub-megatrend definitions<sup>1</sup>, 2) developing relationships across campus and with GCFSI affiliates, 3) designing an outline for the whitepaper, and 4) assigning roles and allocating resources. Following the tentative outline of the whitepaper developed by Dr. Messina in the first two quarters of the project, the team was established and resourced, which resulted in the single largest activity, the generation of the problem statements component of the whitepaper. This was completed and submitted to USAID for review May 31, discussed at length in June, and approved at the end of the quarter. Other important activities included substantial student engagement with other sub-megatrends, the addition of two interns, and planning for field-testing of the problem statements and continued whitepaper development.

### 2.2.2. Megatrend Two: Rapid Urbanization and Transformation of Food Systems

During this quarter the MT2 team engaged in the following activities:

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<sup>1</sup> There are three sub-megatrends: 1) climate change, 2) population growth and 3) pressures on land/water. The three sub-megatrends have been enhanced with five thematic areas: 1) agricultural innovations in response to climate pressures, 2) integrated assessments of climate /agricultural relationships, 3) irrigation systems, 4) land use and cover change pressures, and 5) rural population pressures.

- The team developed its problem statements, shared them with USAID and revised them on the basis of USAID feedback.
- We added Dr. Steve Haggblade of AFRE to our analytical team, to prepare a chapter for the white paper on the nutrition transition in Africa.
- Four first-draft literature reviews were completed to feed into the white paper, for consumer willingness to pay for food safety, urban agriculture, gender in changing food systems, and food losses. Work began on all other literature reviews.
- Estimates for income elasticities of demand were finalized from household data sets for South Africa, Mozambique, Tanzania, Uganda, and Ethiopia, and were incorporated into the projection model for the evolution of food demand in Africa over the next 30 years. A first draft fully operational version of the model for the “maize mixed” food staple zone (covering a large share of East and Southern Africa) was finalized.
- Dr. David Tschirley collaborated with colleagues from University of Pretoria to participate in the IFAMA conference in late June, making a presentation on “MSU partnerships on issues of rapid urbanization and food system transformation in Africa:
- The Global Center for Food System Transformation (GCFSI) and the Modernizing African Food Systems program (MAFS)”

### 2.2.3. Megatrend Three: Evolution in Skills Required by Food Systems Transformation

MT3 finalized the composition of their team with the addition of 3 undergraduate students and 1 graduate student, all of whom participate in weekly meetings held on Mondays. They actively engaged stakeholders, including MAFS, InnovATE, the GCFSI DSI team and Sokoine University via a visit to Tanzania conducted in May. As with the other teams, MT3 focused on conducting research for problem definitions, which resulted in the outline of the whitepaper and problem definition statements presented to USAID in May. In addition, this Megatrend team was an active participant in various conferences, workshops and seminars, as detailed below.



#### **Presentations at conferences and workshops by MT3 for this quarter:**

1. *“Navigating the personal and the professional: Understanding issues of identity in graduate education abroad”* Presentation to the Forum on Education Abroad, Chicago, IL: April 3-5.
2. *“Transformative learning and education abroad”* A presentation for the Study Abroad Fellowship Training Program, Office of Study Abroad and Faculty and the Office of Organizational Development, Michigan State University: East Lansing, MI: April 12.

3. *“Complicating Teaching”* A panel presentation for the Emerging Scholars Workshop, American Educational Research Association Division J, San Francisco, CA: April 25 – 26.
4. *“Graduate education abroad: Academic tourism or deep travel?”* Presentation for the Annual Meeting of the American Educational Research Association, San Francisco, CA: April 27 – May 1.
5. *“Becoming a scholar-practitioner: The role of transformative learning”* Workshop conducted for the Executive Leadership Doctoral Program, George Washington University, Washington, DC, June 11.
6. *“Adult learning and the learning society in the United States: An overview”* a presentation for the Global Workshop for Malaysian Universities Administrative Staff, June 13.
7. *“To see a world in a grain of sand:’ the imaginative and collective nature of soul work”* a presentation for the Transformative Learning Meets *Bildung* Conference, University of Freiburg, Freiburg, Germany: June 21.
8. *“Science and lifelong education”* a presentation for the Global Center for Advanced Learning, Michigan State University: East Lansing, MI: June 25.
9. *“Building capacity with training and professional development”* a presentation for the Global Workshop for Malaysian Universities Administrative Staff, June 27.

#### **Conferences attended by MT3 this quarter:**

1. *“Gender equity in postsecondary education: International perspectives for the 21<sup>st</sup> Century”*. Higher, Adult, and Lifelong Education Global View Symposium, Michigan State University, East Lansing, MI: April 8.
2. *“Capitalizing on the Power of Science, Trade, and Business to End Hunger and Poverty”*. The Global Food Security Symposium 2013, Washington, DC: May 21 (included 2 undergraduate students).

#### **Webinars/online discussions attended by MT3 this quarter:**

1. USAID The Importance of Horticultural Research and Development to the feed the Future Initiative (May 29).
2. #AskAg Twitter Chat: Youth Employment in Agriculture. (June 11).
3. USAID e-consultation - Examining Sustainable Intensification Research Priorities. (June 18-19 online discussion).
4. USAID Microlinks - What will it take to transform Africa agriculture? (June 20).
5. USAID Agrilinks - Capacity Development for National Agricultural Research Systems. (June 26).

#### **2.2.4. Data Systems and Informatics**

DSI focused on achieving work under Objective 1<sup>2</sup>. In this context, the DSI team collected over 200 GB of relevant data, placed all of this data on the database server, selected the ArcSDE (spatial database

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<sup>2</sup> Objective 1. Provide decision support to improve data quality and access, as a way to promote evidence-based decision making in food systems.

engine) format for geospatial data to be used for visualization feature layers and selected Microsoft's SQL database format for general storage and querying of the data.

To support their operations, GCFSI purchased various pieces of hardware and software for DSI operations:

- **Hardware Research and Deployment:**

- Two Dell PowerEdge R720 servers: deployed one machine as a web server on the MSU network, and deployed one machine as a database server on the MSU network.
- Two Dell LCD Monitors.
- Secured all hardware with bezel locks, keypad access, and anti-theft security cables.

- **Software Research and Deployment:**

- Installed and custom configured Microsoft Server 2012 Datacenter Edition on both servers.
- Deployed Microsoft Internet Information Services (IIS) 8 on both servers along with a preliminary website.
- Configured secure remote access to both servers.
- Installed and deployed ArcGIS Server 10.1 to host all GIS services.
- Installed the ArcGIS suite on all non-server machines.
- Connected all machines to the remote ArcGIS server from the local ArcMap installations.
- Chose the JavaScript API to develop ArcGIS applications and visualizations for the website.
- Installed and set up six workstation computers in the Computer Science and Engineering Department.
- Purchased and installed Coffee Cup for web development.
- Acquired and installed Tableau for data visualization.
- Installed Microsoft Office 2013 on all machines.
- Deployed a FTP server, hosted by the DSI, to facilitate data sharing between its members.



### 2.2.5. Information and Communication Technology for Development

During the third quarter, the ICT4D team continued to assemble and review literature examining innovative uses and outcomes associated with ICTs in agricultural and food systems in developing regions of the world. In addition, student workers, Muhammad Ali, Joseph Lajavic, and Ryan Miceli worked with colleagues at the University of California Berkeley to develop a new interface to an online directory of ICT in agriculture projects adding additional details to the directory that will make it more useful to researchers.

On the basis of their review of literature, the ICT4D team identified six ICT4D problem areas that could be used to inform the first year GCFSI RFA process. Core problems identified in this process include:

1. Lack of systematic assessments of ICT4D projects.
2. A need to address sustainability through viable business models in ICT4D efforts.
3. Lack of understanding of farmers' information needs and technology capabilities.
4. Low adoption rates of mobile and other ICT services for farmers and a limited understanding of what drives adoption.
5. Limited analysis of new opportunities to use smartphones and other ICTs to support "precision agriculture" and enhanced decision making by farmers.
6. Lower access and use of ICTs by women farmers, which makes it more difficult for women to enjoy the same opportunities in the marketplace as men.

In May, the ICT4D team interacted with East Africa Region USAID mission staff, researchers on the USAID FACET project, Judy Payne of USAID, and others in the ICT4D field in order to identify appropriate organizations and people to interview for their planned field trip to Kenya and Tanzania. They also made arrangements to interview smallholder farmers as part of their inquiry into the use of mobile devices and other ICTs in this area. The ICT4D team planned to investigate general mobile phone use, as well as awareness and use of mobile applications that seek to provide information and services to farmers. They successfully completed an IRB application with MSU's human subjects committee prior to their field trip.

In June, the ICT4D team completed a three week field trip to Kenya and Tanzania (see Appendix 2 for the ICT4D Trip Report). In Kenya, they interacted with mobile application developers such as M-Farm, which offers an award winning SMS-based market information system in Kenya. They also met with the principals of Mediae, creators of a highly popular television program called Shamba Shape Up, which helps to educate farmers on farming techniques and farm management practices.



They explored collaboration possibilities, including the possibility of a special episode of Shamba Shape Up aimed at instructing farmers how to use various mobile services designed to support them. They also met with developers of other ICT4D applications, including Grameen Foundation staff working on a virtual warehouse system for agricultural products. They met with representatives from One Acre Fund who were using mobiles to enhance the efficiency of their programs that provide loans for farm inputs, farming information and hotline support, and repayment of loans via M-PESA, Kenya's mobile payment system. They also met representatives from Innovations for Poverty Alleviation (IPA) who are working with the Mumias Sugar Company to use mobile phones to provide reminder SMSs to farmers, as well as for mobile payments via M-PESA for

conditional cash advances. Another organization, the Animal Draft Power Program (ADPP) in Homa Bay connected us to several farmer groups, including one that has previously used M-Farm services.

As part of their visit to Kenya, they met with over 80 farmers, some individual and some in groups, to explore their use of mobile phones and other ICTs. These interviews took place in small villages and farms outside Bungoma, Mumias, and Homa Bay. In total, they met with approximately 80 farmers, nearly half of their study participants were women. During interviews, they observed farmers' abilities to use text and information services on their phones, and specifically explored their knowledge of and reactions to M-Farm's service.

Once in Tanzania, they met with Dr. Camilius Sanga and other colleagues at Sokoine University of Agriculture who were actively working on ICT4D projects. Among the projects discussed was a project to enhance farmers' access to extension services using mobile phones. Researchers and extension staff at Sokoine are designing an intelligent system that can receive questions from farmers and automatically direct the question to the appropriate expert with relevant domain knowledge. They also visited a village site with an active Internet center where the new extension service will be tested, and met with a number of other faculty members across the university as well as several department heads and the dean and associate dean of the Faculty of Science in order to update them on the progress of the GCFSI. They also met with the directors of iAGRI to explore collaboration opportunities and received a detailed tour of their excellent ICT facilities.

In Dar es Salaam, the ICT4D team met with the CEO of Femina, which produces a youth-oriented program aimed at young farmers that is integrated with SMS and social media. They explored collaboration possibilities similar to those discussed with the Mediae Shamba Shape Up creators.

On their return from field trip, Susan Wyche and Charles Steinfield submitted a workshop proposal to the International Conference on Information and Communication Technologies and Development. The workshop is titled, "ICT4Ag: Opportunities and Challenges for using Technology to Reach Rural Farmers in the Developing World."

#### **2.2.6. Translational Scholars Corps**

This team created a draft TSC Handbook and Policies, which is still a work in progress. The objective of this manual is two-fold: (1) it provides a detailed introduction to the TSC by introducing a framework for the operation of the TSC and a taxonomy delineating various roles and associated competencies within the TSC; (2) to serve as a reference guide for the TSC students. The handbook is being developed by the TSC as a group and will be vetted by all Megatrends after the document is ready, tentatively in early September. In addition, TSC focused on and achieved the following:

- Hiring a graduate student to coordinate TSC communication across all Megatrends and crosscutting units: A graduate student from the School of Communication Arts and Sciences has been hired to coordinate TSC communication across all Megatrends as well as the international partners. This is being done through listserv email, a Facebook group, and the GCFSI website, monthly newsletter, Flickr page, and video interviews of Mega-trend/cross-cutting team leads and students.
- Finalizing the various roles that students can have in TSC: 24 graduate and undergraduate students have been hired in various roles as translational scholars. For the past quarter, these included

scholars working on the communication aspect of the GCFSI; assisting MT leaders conduct literature reviews for the whitepapers as well as write parts of it.

- Creating a PowerPoint that shows how TSC is structured and cuts across all Megatrends and units: During this quarter, TSC made a presentation introducing the larger GCFSI team, including the international partners, to the concept and workings of the TSC. The idea behind this presentation was to introduce this relatively new concept to all Megatrends so that its usefulness for the work of the center is understood; explore with other MTs how TSC can help them with their work and vice versa; and invite students from other MTs as well as international partners to join weekly TSC meetings either personally or virtually.
- Support students participating in the IFAMA Conference (see Appendix 3 for the Report).
- Expanding student participation: GCFSI awarded 6 development internships and 12 study abroad scholarship, and engaging WUR, TERI and SUA students (see Appendix 4 for the WUR Student Engagement Report).
- Collaborating with ongoing MSU International Programs: TSC finalized mapping all study abroad programs against FtF countries and all Megatrend



focus areas. The objective of this exercise was to create an information bank for easy reference. The information bank provides Megatrends with names and contact information of study abroad programs, at MSU, doing work relevant to the various themes of the GCFSI in the FTF countries. This will be helpful in expanding on campus collaboration and engagement as well as leveraging existing MSU resources.

## Part 3: Intra-Development Lab/ University Engagement

### 3.1. Interdisciplinary Collaboration

With a strong commitment to collaboration and building our internal and external networks, all workstreams reached out to colleagues and other faculty. For example, MT1 engaged faculty and students who had not worked together before. In their team structure, MT1 included five colleges and nine distinct units. During the third quarter, students and interns working for MT1 became part of the newly created TSC managed by MT3.

For its part, MT2 drew from five departments across campus for their: Food Science and Human Nutrition (FSHN); Packaging; Telecommunications; Community Sustainability, and Agricultural, Food, and Resource Economics (AFRE). Beyond campus, they defined topics of work for individuals from Food Science and Agricultural Economics at Sokoine University of Agriculture in Tanzania. They involved the

Management Studies team at Wageningen University for stakeholder engagement and student engagement activities.

For their part, DSI worked with the Megatrend teams to establish datasets for analysis and to build understanding of the trends. In addition DSI participated in three proposals for projects in Uganda (USAID), the East Africa Region (USAID) and in West Africa (DFID). These teams included non-GCFSI faculty teams that wish to tap into the GCFSI analytics and data support. In total 28 faculty members made new connections to GCFSI through DSI work in supporting development research proposals that total \$7.5 million dollars. DSI and KM also have been working extensively with MSUGlobal and the college of Communication Arts and Sciences to develop a knowledge sharing platform that will allow for broad connection to the GCFSI and will create an environment in which the complex and interlinked nature of their work can be understood and connected with.

Finally, ICT4D continued to interact with researchers across the GCFSI regarding the potential for innovative uses of ICTs to solve problems identified in each of their respective areas.

### 3.2. Partner Engagement

The teams worked closely with WUR, Sokoine and TERI. Work was conducted this quarter to bring Lincoln University on board, and CRDF Global to manage the second round RFA for year two. In addition, Dr. Joseph Maitima from EcoDym Africa (Nairobi) became a partner in the whitepaper development and review process for MT1. MT1 also initiated contacts with Dr. Barry Haack (SERVIR (East Africa)), Dr. Pariwate Varnakovida (Bangkok, Thailand), and Dr. Jim Jones (AgMIP) as potential future collaborators and reviewers. MT1 also begun to engage TERI in India as an active partner for year two research. DSI worked closely with TERI via an intern from TERI University (Sumit Anand) who is working with the DSI unit to collect relevant geospatial data for Asia. He is also providing a series of online visualizations for various food security issues. As mentioned above, ICT4D and MT3 visited with GCFSI partners at Sokoine University of Agriculture and discussed many potential collaboration opportunities. ICT continue to actively explore research collaboration opportunities with Dr. Camilius Sanga, the head of the informatics department. They also discussed the potential of sending ICT interns from GCFSI to iAGRE to assist with their efforts to broaden access to advanced IT services for SUA faculty and students.

### 3.3. Student Engagement

MT1 engaged two post-doctoral researchers, five doctoral students, two interns, and one undergraduate. All have active roles in the production of the whitepaper and variously through literature reviews, data collection, and analysis. MT2 also supported two graduate students in AFRE, one in Telecommunications, and one in Packaging, and one student in FSHN. All are actively engaged in literature reviews and other work contributing to the white paper. The DSI members developed a Python programming course and have been teaching programming skills to other graduate students affiliated with the GCFSI. A student from Computer Science and Engineering attended ESRI's ArcGIS Users Conference for GIS development.

Four students worked with the ICT4D team during this quarter, Muhammad Ali, Joseph Lajavic, Ryan Miceli, and Dominic Nangea. Muhammad, Joseph, and Ryan all worked on the creation of an improved web interface to an online directory of ICT4D projects. This online directory was initially developed by

Professor Jenna Burrell and her doctoral student, Elisa Oreglia, both researchers affiliated with the HESN lab at Berkeley. ICT collaborated with Professor Burrell and Elisa Oreglia to add additional columns of information to the directory, and create a web form that simplifies updating the directory with new findings and new projects. This directory will be implemented both within GCFSI and at Berkeley, reflecting collaboration between the two institutions. In addition, Dominic Nangea, who is an undergraduate student in Food Science with an interest in ICT4D, was awarded one of the GCFSI summer research internships and accompanied Charles Steinfield and Susan Wyche on their field trip to Kenya and Tanzania. He supported field interviews, providing translation of questions and responses between Swahili and English, and gathered information for a paper on the use of mobile devices by small farmers.

### 3.4. Private Sector Engagement

Led by MSU's corporate relation team, Rolf Dietrich and his group focused on disseminating information about GCFSI to various private sector groups. In particular:

- **Land O'Lakes:** In-person conversations have been held with three Vice Presidents at Land O'Lakes about MSU's activities in international development, cross-cultural education and workforce enhancements. All are interested in finding new ways to tie these to our foundational relationships in agricultural and food production, business management, and public policy issues. Visits with faculty active and interested in GCFSI, as well as faculty and staff involved with MasterCard Foundation Scholars are being planned for the coming months.
- **BASF Shanghai:** We introduced the GCFSI concept to BASF Singapore/Shanghai by electronic communications and we are meeting with the Packaging/Food Safety team in Shanghai on July 19th and were requested to provide an overview with regard to the three trends (outline the problem statements) and we will share engagement opportunities for this global agricultural and food conglomerate. Call report will follow after the meeting.
- **Visit to IFAMA:** Multiple new corporate contacts were made at the recent annual IFAMA conference in Atlanta, with nearly universal interest in how MSU can help companies expand and strengthen their global business. VP-level or higher conversations were begun or advanced with Land O'Lakes, Coca-Cola, Syngenta, Tyson Foods, McDonald's and Novus International. Some of these talks involved GCFSI partners from Wageningen in addition to MSU.
- **Coca-Cola Company:** MSU has a strong relationship with the company in several areas including international studies, packaging and HR, but we have recently made efforts to engage the company in the field of sustainable agriculture. Ernesto Brovelli leads this area for Coca-Cola and also serves as the current President of the Sustainable Agriculture Initiative ("SAI"), a multi-stakeholder industry group celebrating its 11th year. Dr. Brovelli is very interested in continuing the conversations with MSU and Wageningen about multiple elements of GCFSI.
- **Novus International:** Thad Simons has been CEO of Novus since 2001 and is the current President of IFAMA. He has longstanding relationships with several MSU faculty and would like to know more about GCFSI and consider how Novus can participate. The animal feed and production company has customers in 90 countries.

- **World Food Prize Event 2014:** GCFSI is in the process of booking a venue for a corporate engagement event at the World Food Prize in Des Moines on the morning of Wednesday, October 16th. We are seeking high-level representation for this event also from USAID, and we have started sharing hold-the-date notices for expected attendees (Des Moines Marriott, Oct. 16th, 7:30 – 9:00 am).

### 3.5. Lessons Learned/ Good Practices

With almost one full year of implementation, we have started identifying a few lessons for operations:

- Despite the extraordinary resources of a major research institution, as the science questions expand, focusing early in particular regions / topics is critical to ramp up the necessary regional expertise.
- Budget flexibility is critical given the uncertainty around the nature of a science based deliverable, particularly given the complexity of faculty appointments and student availability.
- Effective communication systems is critical, as well as having one clear guidance and direction from our partners in USAID.
- Transparency of meetings and decisions works to facilitate the engagement of all involved and provides an effective network for others not directly involved with a team to engage and contribute.
- Student contribution at all educational levels, when combined as a team lends itself to some very innovative ideas.

## Part 4: USAID Engagement

### 4.1. Interactions

GCFSI staff met with representatives from BFS and OST to discuss an effective monitoring and evaluation plan for GCFSI during the directors' meeting held in April 2013. In addition, MT1 engaged USAID directly through the problem definition process and multiple phone conversations. These communication activities directly influenced the problem statement generation process and deliverable. For MT3 and TSC Clara Cohen, Susan Owens and Ken Scheffler have participated in some of the team's weekly meetings. MT3 had a conference call on April 12 with Rachel Blum to discuss engaging youth in workforce development. The ICT4D also interacted with several USAID staff to prepare for their field trip to Kenya and Tanzania. Representatives for the East Africa Regional Mission were instrumental in directing them to key resources during a teleconference in May. They corresponded also with Judy Payne about ICT4D activities and Susan Wyche met with Judy in Kenya to discuss their field work. Finally, the ICT team corresponded with Josh Woodard from FHI360 who led the FACET project, and he put them into contact with several field organizations doing interesting work with mobile technologies in Kenya.

### 4.2. Lessons Learned/ Good Practices

Concerning USAID engagement, we have been very appreciative to have the support of USAID Washington, via Ken Scheffler, Susan Owens and many others who are engaged in the day-to-day operations of the Center. We would like to have more interactions with USAID Missions, and have had

success this quarter engaging in conversations with USAID India, USAID Tanzania, USAID Malawi and others. We hope to continue this trend, and expand our connections with USAID Missions in West Africa and Asia. Our experience shows, we will need to start the dialogue with these Missions early.

## **Part 5: Collaboration with Other Development Labs**

### **5.1. Interactions**

GCFSI participated in the Directors' meeting held in Washington, DC in April, and used this opportunity to establish connections with other development labs. While the Megatrend teams had little interaction with the other development labs, DSI staff did connect with both the College of William & Mary and MIT in an effort to form collaborations on knowledge sharing and data sharing. They were involved this quarter in ongoing discussions with MIT as DSI work dovetails with theirs conceptually. Jarrod Goentzel the Director, MIT Humanitarian Response Lab is scheduled to visit MSU on July 17th to further explore how we can build synergy. For MT2, Dr. Steve Haggblade participated in a panel at the Conflict & Development Workshop in Washington, DC, on April 25, 2013. This workshop was organized by the Center on Conflict and Development at Texas A&M University.

Also, the ICT4D team continued interactions with Jenna Burrell and her doctoral student, Elisa Oreglia, ICT4D researchers at U.C. Berkeley's School of Information who are affiliated with the development lab there. These interactions focused on collaborations to improve an online directory of ICT in Agriculture projects. Additionally, ICT4D collaborated with them in developing their workshop submission for the ICT4D annual conference to be held in Cape Town in December and have invited Elisa Oreglia to be a panelist.

### **5.2. Lessons Learned/ Good Practices**

Very few lessons learned since there has not been much interaction with other labs. MSU feels it would be convenient if we had more information about their work, such as other work plans or statements of their operations that can help us identify more collaboration opportunities.

## **Part 6: Monitoring & Evaluation**

### **6.1. Preparation Activities**

GCFSI worked closely with USAID via our AOR to complete the monitoring and evaluation framework, tracker and detailed indicator reference sheets. Final framework was submitted in June for USAID approval.

### **6.2. Ongoing Monitoring & Evaluation**

As of the end of this quarter, we have not received USAID approval of the GCFSI M&E Plan. Since the complete structure of the M&E plan for GCFSI was modified at the end of June to align it to the USAID framework, we are awaiting USAID approval to present updated metrics, and expect to send metrics to USAID upon M&E approval expected in July.

## Part 7: Looking Ahead

### 7.1. Calendar of Events

JULY 2013				
DATES	EVENT	DESCRIPTION [PLEASE INCLUDE ACTIVITY NUMBER IF APPLICABLE]	USAID Leadership/ Involvement	Development Lab Collaboration
July 8-12	ESRI Conference	Student from DSI participating in a conference that will cover geospatial industry research and advancements	None	None
July 20- August 3	MT1 Visit to Malawi	Whitepaper research and hub analysis.	None	None
AUGUST 2013				
DATES	EVENT	DESCRIPTION [PLEASE INCLUDE ACTIVITY NUMBER IF APPLICABLE]	USAID Leadership/ Involvement	Development Lab Collaboration
Aug. 21-22	GCFSI Global Food System Symposium	Event to be held at MSU in August to bring together various specialists in the area of food security to discuss and vet the whitepaper findings	USAID AOR/BFS	None
SEPTEMBER 2013				
DATES	EVENT	DESCRIPTION [PLEASE INCLUDE ACTIVITY NUMBER IF APPLICABLE]	USAID Leadership/ Involvement	Development Lab Collaboration
Sept 29-Oct 3, 2013	Global Food Security Conference	Participate in the conference, support students who have been selected for posters, connect with WUR and visit WUR	None	None

## 7.2. Description of Future Activities

The most significant activities during the fourth quarter will be:

1. Launch the student innovation grant RFA (July 2013).
2. MT1 travel to Malawi to conduct whitepaper research and hub analysis (July 2013).
3. Launch the innovation grants RFA (August 2013).
4. Conduct the GCFSI Food Security Symposium to vet the content of the whitepapers with various stakeholders (August 2013).
5. Revise and submit a new budget for GCFSI operations for year two (August 2013).
6. Complete and submit the first round whitepapers for East Africa (Sept. 2013).
7. Write a manuscript for submission to CHI 2014 (ICT4D -a premier venue for sharing work on ICT for development, and developing a workshop for the annual ICTD meeting to be held in Cape Town in December).

### 7.2.1. Events

The GCFSI team is looking forward to coordinating the GCFSI Food Systems Symposium in August 21, 2013. The event will host various experts in the area of food security with particular interest in the areas of research of the center. With a first day devoted to GCFSI internal discussions, days 2 and 3 will host experts in open discussions aimed at addressing the whitepaper findings.

### 7.2.2. Publications

We plan to have in place the following publications:

1. Scientific publications based on the whitepaper problem definitions.
2. At least 2 project newsletters.
3. Various team submissions to the conferences identified above.

### 7.2.3. Communications

Next quarter, we hope to complete the Knowledge Management strategy, engage MSUGlobal, and continue to expand the GCFSI footprint in social media, and via various newsletters and publications.

## Appendix I. Student Innovation Grants RFA

### I. Purpose

Michigan State University's Global Center for Food Systems Innovation (GCFSI) is one of seven new development labs funded by the United States Agency for International Development (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.

At the core of the GCFSI mission is connecting to the next generation of innovators and supporting their efforts to create new solutions to food system challenges in the developing world, with a particular focus on East Africa for the project year 2013. We are issuing this call for applications to connect with student creativity and problem solving across higher education. We are making up to 16 grants of \$5,000 each to sponsor design challenges in senior level capstone design classes.

<b>Competition Opens:</b>	July 1, 2013
<b>Deadline for Questions:</b>	July 15, 2013
<b>Application Deadline:</b>	August 15, 2013
<b>How to Apply:</b>	Please submit applications and questions to <a href="mailto:gcfsi@msu.edu">gcfsi@msu.edu</a>
<b>Basic Eligibility:</b>	Applications must come from instructors or department chairs with capstone design courses in agribusiness management; food science; information and communication arts and sciences; and bio-systems and agricultural engineering.
<b>Award Amount:</b>	MSU anticipates awarding up to 16 grants with a value of up to \$5,000 each

Program Contact: Maria Murphy, Program Manager, GCFSI

Email: [rodri566@msu.edu](mailto:rodri566@msu.edu)

Website: [www.gcfsi.isp.msu.edu](http://www.gcfsi.isp.msu.edu)

## II. Timeline

Event	Date
1. RFP Distribution	July 1, 2013
2. Deadline for Questions	July 15, 2013
2. Application Deadline	August 15, 2013
3. Review	August 16-31, 2013
4. Notification of Awards	September 15, 2013
5. Expected Funds Distribution	September 30, 2013
6. Project Report Due	Quarterly starting 90 days as of contract

## III. GCFSI OVERVIEW

GCFSI is one of seven development labs funded by USAID in their 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 four global trends—climate change, rapid urbanization, population growth and skill gaps.

### 3.1 WHAT MAKES THE CENTER DIFFERENT

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

### 3.2 GCFSI's CORE TENETS

- 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 HESN 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.

### 3.3 MEGATREND FOCUS AREAS

**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 in climate smart agriculture, carbon mitigation in the food system and climate adaptation in food systems as well as technologies that would increase food production by intensive agriculture or extensive agriculture by placing more land in production in the context of developing countries. Specifically, GCFSI is seeking innovative solutions to address the following problems:

1. What approaches, systems, technologies or solution would make agriculture more resilient to climate change?
2. What approaches, systems, technologies or solutions would allow farmers/growers to increase production per unit area of farm land?
3. What approaches, systems, technologies or solution would allow farmers to manage marginal arable lands?
4. What approaches, systems, technologies or solution would make food production more carbon neutral?

**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. Specifically, is seeking innovative solutions to the following problems:

1. What approaches, systems, technologies or solutions would allow farmers and growers increased access to urban markets?
2. What approaches, systems, technologies or solutions are needed in the staple food value-chain that would substantially move large quantities of food into urban population centers while maintaining quality and safety of food?
3. What approaches, systems, technologies or solutions would allow production of high-value perishable foods within the urban and peri-urban area?

## IV. Questions and Application Instructions

Questions to clarify content must be submitted to [gcfsi@msu.edu](mailto:gcfsi@msu.edu) by **5:00 PM Eastern Standard Time of the United States on July 15, 2013**. GCFSI will consolidate questions and answers and publish these on the website <http://www.gcfsi.isp.msu.edu> and other outlets. E-mails with questions shall contain “GCFSI- Student Innovation Grant – Questions” on the subject line to be considered.

All applications must be submitted to [gcfsi@msu.edu](mailto:gcfsi@msu.edu) by **5:00 PM Eastern Standard Time of the United States on August 15, 2013**. The applicant will receive a confirmation email upon submission. Each application will be screened for eligibility and completeness upon receipt. Any applicants whose application is deemed ineligible will be notified by e-mail. E-mails with applications shall contain “GCFSI- Student Innovation Grant – Application” on the subject line to be considered.

### **Applicants should note the following general rules for this competition:**

1. All applications must be complete when submitted. Applications that do not have all required elements as indicated in this program announcement will be ineligible.
2. Only emailed applications are accepted.
3. No modifications may be made to the application once it has been received.
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](mailto: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 in a single electronic portable document format (PDF) file to [gcfsi@msu.edu](mailto:gcfsi@msu.edu). Applications submitted as multiple files may not be considered.
7. Applications shall be drafted in Arial font 12 pt. Charts and tables may use font Arial 10 pt. Applications that exceed **10 pages** will not be considered.

**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 challenge.
2. **Course Description.** Statement of the course goals, credit awarded and an example of past projects. Should include the professional development benefit to students.
3. **Technical Approach and Statement of Alignment with the GCFSI Mission.** A short description of how the proposed design challenge aligns with the GCFSI mission of creating innovation in global food chains, and how the work applies in the developing country context. Should include a documentation and communication plan that lays out how the team will document their experience for GCFSI, this can be through direct communication, social media, blogging etc.
4. **Sponsorship acceptance from appropriate Dean or Department Chair.** The lead faculty or instructor must provide a letter endorsing the sponsorship progress and stipulating contact information for the transfer of funds.
5. **Budget.** The budget must detail how the challenge funding will be applied. The intent of these awards is to sponsor a team of students to engage in novel problem solving, therefore, use of this funding to support development of new courses, instructor salary support, and textbooks are not allowable expenses. Allowable expenses include materials, tools, software, and other materials and supplies needed for the completion of the student capstone projects.

## V. Selection Process

Review of eligible applications will follow the criteria listed below:

1. **Course Content and Approach:** Demonstration of a clear understanding of the subject and its implications, the innovation possible within the design challenge, the ability to create effective and dynamic student teams.
2. **Technical Approach and Alignment with GCFSI focal areas:** The degree of alignment with the stated program goals of GCFSI, specifically in connecting students to developing country challenges, creating innovation in the food system and connecting teams to the broader HESN and USAID network of problem solvers. Gender considerations in the approach will be a plus.
3. **Documentation and Communication Plan.** The strength of the plan to provide feedback to GCFSI of lessons learned, connections made and student experiences.
4. **Professional Benefit:** Relevance of the proposed work to the student's career goals and areas of specialization and interest, potential for proposed work to facilitate the applicant's career goals and development, and the likelihood that the work may lead to collaborations with other university students.

## VI. 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](http://www.gcfsi.isp.msu.edu).

## VII. Additional Technical Support

Inquiries regarding technical difficulties with this Request for Applications should be directed to GCFSI Program Manager at [rodri566@isp.msu.edu](mailto:rodri566@isp.msu.edu). Applicants are requested to identify themselves in all correspondence and put the phrase “GCFSI- Student Innovation Grant - Support” in the email subject line. MSU at its sole discretion may choose not to disclose certain information in a response to any request for support 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.

## VIII. Application Checklist

Checklist of the Application Contents
1. <input type="checkbox"/> Class Description
2. <input type="checkbox"/> Technical Approach and Statement of how the proposed course aligns with the GCFSI Mission
4. <input type="checkbox"/> Sponsorship acceptance from appropriate Dean or Department Chair
6. <input type="checkbox"/> Budget

## Appendix II. ICT4D Trip report – Kenya and Tanzania June 2013

### TRIP REPORT

**Name:** Charles Steinfeld, GCFSI ICT4D Lead  
Susan Wyche, GCFSI ICT4D Co-Lead  
Dominic Nangea, GCFSI ICT4D Research Intern

**Trip Report:** The purpose of this trip was to meet with the developers and users of ICT applications targeting the agricultural sector in Kenya and Tanzania, with a focus on mobile applications. An additional goal was to meet with faculty conducting research on ICT systems for farmers from Sokoine University of Agriculture to investigate the potential for cooperative research.

**Travel Dates:** June 5 - June 22, 2013

**Report Date:** June 27, 2013

**USAID Contract No:** AID-OAA-A-13-00006

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**PURPOSE:** The purpose of this trip was to:

- Investigate innovative and promising ICT-based applications, especially those aimed at rural, small farmers
- Interview and observe smallholder farmers to assess their knowledge of and ability to use mobile phones to access information services
- Learn more about ICT4D research being undertaken at Sokoine University of Agriculture (SUA) and build a basis for research collaboration

#### STRATEGIC OBJECTIVE ADDRESSED:

SO1, IR 1.1, Activity 1.1.9 Role of ICT in Ag and Food Systems

#### LOCATIONS VISITED:

- Grameen Foundation, Nairobi, Kenya
- M-Farm, Nairobi, Kenya
- Wakilima Market, Nairobi, Kenya
- The Mediae Company, producers of *Shamba Shape Up*, Nairobi, Kenya
- One Acre Fund (OAF), Bungoma, Kenya
- M-Kopa, Nairobi, Kenya
- iHub Research and Consulting, Nairobi, Kenya
- Innovations for Poverty Action (IPA) and the Mumias Sugar Company, Mumias, Kenya
- Animal Draft Power Program (ADPP), Homa Bay, Kenya
- Sokoine University of Agriculture, Morogoro, Tanzania
- Kilosa Rural Services and Electronic Communication Center (KIRSEC), Kilosa, Tanzania

- Femina, Dar es Salaam, Tanzania
- Various individual farmers and farmer groups near Bungoma, Mumias, and Homa Bay, Kenya

## **ACTIVITIES AND ACCOMPLISHMENTS:**

In Nairobi, prior to Charles Steinfield's and Dominic Nangea's arrival, Susan Wyche met with Erin Conner of the Grameen Foundation, which has developed a virtual warehouse application for farmers and Katherine Macmahon from the Mediae Company, who oversees a social media site developed for Kenyan farmers. Wyche also met with Judy Payne, e-business Advisor and Africa ICT coordinator at USAID, to discuss the ICT landscape in East Africa and attended a lecture titled "Bringing Science to Life: CCAFS and Shamba Shape Up" at the World Agroforestry Center. Laura Murphy, PhD, Clinical Associate Professor at Tulane University, met with Susan to discuss strategies for recruiting farmers during our field work.

After Chip and Dominic arrived our team met with Jamila Abass, a co-developer of M-Farm, an award-winning SMS system aimed at small farmers that provides daily market prices as well as a service that links buyers with sellers in Kenya. We also met with David Campbell, the CEO of the Mediae Company which produces Shamba Shape Up, an educational television show aimed at small farmers that incorporates both SMS interaction and social media.

We then traveled to Western Kenya, where we explored smallholder farmers' use of mobile phones in a series of interviews. These included interviews with individual farmers and their spouses, as well as focus groups with as many as 10-12 farmers including several small farmer collectives. These interviews took place in small villages and farms outside Bungoma, Mumias, and Homa Bay. In total, we met with approximately 80 farmers, nearly half of our study participants were women. During interviews, we observed farmers' abilities to use text and information services on their phones, and specifically explored their knowledge of and reactions to M-Farm's service.

We also visited three organizations during these field visits that work with farmers, or were using novel mobile applications to facilitate their work with farmers. These organizations included OAF in Bungoma, which works directly with smallholder farmers and is currently experimenting with a mobile repayment application using the M-PESA service. Small farmers use M-PESA to make direct weekly payments to OAF to repay loans for farm inputs. OAF also is testing a hot line service and an SMS alerting/information service with their farmers. A second organization is IPA, which is working with the Mumias Sugar Company to use mobile phones to provide reminder SMSs to farmers, as well as for mobile payments via M-PESA for conditional cash advances. A third organization was ADPP in Homa Bay, which connected us to several farmer groups, including one that has previously used M-Farm services.

Once in Tanzania, we met with Dr. Camilius Sanga and other colleagues at Sokoine University of Agriculture who were actively working on ICT4D projects. We met with a number of other faculty members across the university as well as several department heads and the dean and associate dean of the Faculty of Science in order to update them on the progress of the GCFSI. We also met with the directors of iAGRI to explore collaboration opportunities and received a detailed tour of their excellent ICT facilities.

Finally, in Dar es Salaam, Charles Steinfield and Dominic Nangea met with Minou Fuglesang, CEO of Femina, which produces a youth-oriented program aimed at young farmers that is integrated with SMS

and social media. Wyche returned to Nairobi where she had a follow-up meeting with David Campbell to discuss findings from our fieldwork and to discuss future collaboration opportunities. She also met with Angela Crandall, research manager at iHub to learn about her prior studies of farmers and mobile phones in rural Kenya.

#### KEY COUNTERPARTS MET OR INVOLVED IN DELIVERABLE:

Name	Email	Role/ Position
Erin Conner	<a href="mailto:ec Connor@grameenfoundation.org">ec Connor@grameenfoundation.org</a>	Grameen Foundation, Nairobi
Jamila Abass	<a href="mailto:jabass@mfarm.co.ke">jabass@mfarm.co.ke</a>	Co-Founder, M-Farm, Nairobi
David Campbell	<a href="mailto:david@mediae.org">david@mediae.org</a>	CEO of Mediae, producers of Shamba Shape Up, Nairobi
Katherine MacMahon	<a href="mailto:katherine.macmahon@media.org">katherine.macmahon@media.org</a>	Social Media Coordinator at Mediae
Dr. Laura Murphy	<a href="mailto:lmurphy2@tulane.edu">lmurphy2@tulane.edu</a>	Department of Global Health Systems and Development, Tulane University
Judy Payne	<a href="mailto:jpayne@usaid.gov">jpayne@usaid.gov</a>	e-business Advisor and Africa ICT coordinator at USAID
Tom Mortimore	<a href="mailto:tom.mortimore@oneacrefund.org">tom.mortimore@oneacrefund.org</a>	One Acre Fund, manages mobile repayment trials, Bungoma
Zishan Jiwani	<a href="mailto:zishan.jiwani@oneacrefund.org">zishan.jiwani@oneacrefund.org</a>	One Acre Fund, manages mobile reminders and customer engagement center, Bungoma
Noah Mambo	<a href="mailto:nmambo@poverty-action.org">nmambo@poverty-action.org</a>	Project Associate, Mumias Sugar Projects, IPA, Mumias
Celestinus Khaemba	<a href="mailto:ckhaemba@poverty-action.org">ckhaemba@poverty-action.org</a>	Project Associate, Mumias Sugar Projects, IPA, Mumias
Martha Othieno	<a href="mailto:merangelyne@yahoo.com">merangelyne@yahoo.com</a>	Monitoring and Evaluation Coordinator, ADDP, Homa Bay, Kenya
Tobias O. Althiambo	<a href="mailto:altuambotobias@yahoo.com">altuambotobias@yahoo.com</a>	ADDP, Homa Bay, Kenya
Dr. Camilius Sanga	<a href="mailto:csanga@gmail.com">csanga@gmail.com</a>	Head, Department of Informatics, SUA, Morogoro, Tanzania
Dr. Maulilio J. Kipanyula	<a href="mailto:kipanyula@yahoo.com">kipanyula@yahoo.com</a>	Dept. of Veterinary Anatomy, SUA, Morogoro
Prof. Malongo Mlozi	<a href="mailto:mrmlozi@yahoo.com">mrmlozi@yahoo.com</a>	Department of Agricultural Education and Extension, SUA, Morogoro
Prof. Siza Tumbo	<a href="mailto:siza.tumbo@suanet.ac.tz">siza.tumbo@suanet.ac.tz</a>	Dept. of Agricultural Engineering and Land Planning, SUA, Morogoro
Mr. Mark Farahani	<a href="mailto:mfarahanitz@yahoo.com">mfarahanitz@yahoo.com</a>	SUA alumnus and founder of KIRSEC, Kilosa, Tanzania
Mr. Erick Farahani	<a href="mailto:emctz.marandu@yahoo.com">emctz.marandu@yahoo.com</a>	Administrator of KIRSEC
Ms. Mary Richard	<a href="mailto:marylucastz@yahoo.com">marylucastz@yahoo.com</a>	KIRSEC, womens agro-processing group, Kilosa
Theobald Mosha	<a href="mailto:tcemosha@yahoo.com">tcemosha@yahoo.com</a> <a href="mailto:tcemosha@suanet.ac.tz">tcemosha@suanet.ac.tz</a> +255(0)767-844-024	Professor, Food Science and Nutrition
Isaac Minde	<a href="mailto:mindeisa@msu.edu">mindeisa@msu.edu</a>	iAGRI, SUA, Morogoro
David Kraybill	<a href="mailto:Kraybill.1@osu.edu">Kraybill.1@osu.edu</a> <a href="mailto:kraybill@iagri.org">kraybill@iagri.org</a>	iAGRI, SUA, Morogoro
Prof. B. E. Chove	<a href="mailto:bchove@suanet.ac.tz">bchove@suanet.ac.tz</a>	Head, Department of Food Science & Technology, SUA, Morogoro
Dr. Alfred Sife	<a href="mailto:asife@suanet.ac.tz">asife@suanet.ac.tz</a>	Deputy Director Institute for Continuing Education, SUA, Morogoro
Prof. P.L.	<a href="mailto:pmwangingo@yahoo.com">pmwangingo@yahoo.com</a>	Dean, Faculty of Science, SUA, Morogoro

Mwang'ingo		
Dr. G. K. Karugila	karugila@yahoo.com	Deputy Dean, Faculty of Science, SUA, Morogoro
Mr. Alcado Alex	damaskaz2007@suanet.ac.tz	Department of Informatics, SUA, Morogoro
Mr. Joseph Phillip	josephmasamaki@suanet.ac.tz	Department of Informatics, SUA, Morogoro
Dr. Benedictor Kazuzuru	bwenke_99@yahoo.com	Department of Biometry and Mathematics, SUA, Morogoro
Angela Crandall	angelac@ihub.co.ke	Manager, iHub Research and Consulting, Nairobi, Kenya

## Appendix III. IFAMA Students Report

### Students' Reports about IFAMA 2013 Conference

The Coordinators of GCFSI at WUR (GCFSI@WUR)

**Domenico Dentoni and Dimitrios Mitsopoulos**

Management Studies Group (MST)

Wageningen University and Research Centre

The GCFSI funded two (2) MSc and two (2) PhD students from Wageningen University and Michigan State University (MSU) respectively to attend the International Food and Agribusiness Management Association (IFAMA) 2013 Conference in Atlanta and to participate in the study case competition as one team. Mentors of the team were Charles McKeown, Professor at Agricultural Food and Resource Economics at MSU and Domenico Dentoni, Assistant Professor in Management Studies group at Wageningen University. The WUR students were Sebastiaan Van Leur and Jelle Baumgartel, both from Management Studies group.

Information about IFAMA: <https://www.ifama.org/about/MissionAndHistory.aspx>.

The 2013 IFAMA Conference had the following theme: The Road to 2050: The Talent Factor - Meeting Future Global Needs of Food and Agriculture. For information about the workshops, the speakers, the sessions, the discussions and all the detailed program of the conference please visit the following link:

<https://www.ifama.org/events/conferences/2013/Default.aspx>

For photos of the WUR and MSU students during the conference and detailed description of the study case competition please visit the following links: <http://www.gcfsiatwur.org/2013/06/the-ifama-conference-student-case.html> and <https://www.ifama.org/getinvolved/students/SCC.aspx>. Also, the IFAMA Conference photo gallery in the link: <http://www.gcfsiatwur.org/2013/06/the-ifama-conference-photo-gallery.html>.

#### A. Report by Jelle Baumgärtel, MSc Student at Wageningen University

Attending the IFAMA conference was a novel, interesting and fruitful experience for me. I had never experienced an event where academia, the business world were so close together sharing what are the most pressing issues in their respective views. Also, the focus on students was new although I had expected it to some degree considering the theme of the conference: The Talent Factor.

The conference started off with the student case competition. In my studies I was not confronted with such a high pressure assignment. The fact that I had not met any of the other team members added to the novelty of the experience: I'm used to getting to know my 'colleagues' before getting started. I went in expecting that the case competition was going to be one big improvisation. We used the one and a half hour before we were given the case to get to know each other. I think that this was helpful. Prior getting to know each other might increase the effectiveness of the group and, towards the end of the process, leave time for important details. I have to say that from what I've heard other groups also experienced lack of time.

Overall the case competition went very well and I have gained valuable experience in teamwork and

strategic decision making. Through the grapevine I heard that the judges were surprised (in a good way) about our results especially considering we only met a few hours earlier. In the end they have to judge by the product of course and therefore I understand that we have not advanced to the finals.

Besides the case competition there was of course the academic symposium. Although agriculture and business are not my field I was very interested to hear what are 'hot topics' in agriculture and food management. I was surprised to hear that many issues that are relevant in my field (urban environmental management) also dominate the discussion in agriculture. Waste, resource use and sustainability in general were much-discussed during the symposium. Hearing the approaches and analytical techniques of agricultural- and management-scientists was interesting and although much sounded familiar (enabling me to ask relevant questions) there were also fields of research that were rather new to me (such as case-studies of failed regional renewable energy transitions).

Another session that I attended that intrigued me was about the Harvard style case method. This innovative, unconventional way of teaching appeals very much to me and I had a lot of fun learning about it. Hearing teachers from renowned business schools such as Mary Shelman (Harvard) and Damien McLoughlin (Smurfit Business School, Dublin) speak about their experiences, learning process and obstacles in implementing this method in their classes was very inspiring. After the introductory class I participated in an actual case session about a Pakistani poultry company. Although normally one would read the case and discuss ones views in a small study group prior to the plenary session, the session that day was informative and I was surprised at the fluidity with which Damien McLoughlin guided this underprepared group and let us arrive at sensible insights about the company.

Attending the session by the CEO of CHS Carl Casale gave me some new insight in how a coop-owned agribusiness company works. I had never considered this kind of company before and learned a lot about its benefits and limitations. Mr. Casale's presentation was noticeably different in style than the academics' presentations (although I should be careful about generalizing). I think his experience in business gives him a different perspective on agriculture and this is refreshing to hear (especially) as a student.

The presentation by Tim Fox (Institute of Mechanical Engineers) surprised me in multiple ways. First of all the nature of what he said: food waste is so vast that if all produced food were consumed and not wasted there would be enough food even now (without increased production) to feed 9 billion people. And reducing waste can be achieved by implementing relatively simple engineering solutions. Secondly, his view was the exception at this conference. Besides Tim Fox and Sonny Ramaswamy no-one talked of the importance of food waste. I also joined the session about preventing waste in supply chains (moderated by Tim Fox). Three speakers from different companies gave their views on preventing food waste and the obstacles they encountered and solved (or are still solving) in practice.

Another session that was relevant to my field was provided by Ernesto Brovelli about SAI platform: Sustainable Agriculture Initiative platform. He addressed practical issues in defining what sustainability means when you try to agree with many stakeholders and also how to implement this view (operationalization). For example, growers need simplicity when trying to implement these agreed upon codes but simplifying a complex problem like sustainability without violating key aspects is a difficult task that SAI is trying to achieve. The session was also the global kickoff for a checklist that growers can use to implement the sustainability code.

The World Forum was closed with a keynote by Anders Sorman-Nilsson; a futurist and founder of

strategy think tank Thinqe. His views on digital minds and analogue hearts, supported by personal anecdotes and stories succeeded in putting the conference and its theme in an even wider perspective. Also, Anders Sorman-Nilsson's presenting style is something that I can learn a lot from since he was highly engaging and managed to hold the audience's attention to the very end.

A post-conference activity that I attended was the excursion to the Georgia Tech Food Processing and Technology Division (FPTD) followed by a visit to the Product Development Kitchen of Chick-fil-A, a quick-service restaurant chain. Seeing the specific problems that FPTD is working on and how they capitalize on their knowledge was interesting and I saw some parallels to Alterra; a research institute related to Wageningen University. During the Chick-fil-A tour we learned more about the development process of new products (including marketing research, test phases etc.) and had a look at 'The Hatch': the big testing hall in which Chick-fil-A develops and tests new store concepts and trains employees. Seeing that a quick-service restaurant invests so heavily in innovation was surprising to me and made me look at the Chick-fil-A restaurant where I had dinner afterwards with different eyes.

All in all I can say that the IFAMA experience has expanded my views on agricultural management as well as on my own field since obstacles and approaches presented during the conference (especially regarding sustainability) directly apply to my own field (albeit in the urban context). Hearing business men and women speak about their particular approaches and challenges was refreshing and provides a broader view on my future work.

#### **B. Report by Sebastiaan van Leur, MSc Student at Wageningen University**

On the verge between my academic education and professional career, IFAMA 2013 could not have come at a more suited moment in my life. Both personally and professionally the symposium and conference offered the dignifying opportunity of presenting myself and my research in a highly dynamic and interdisciplinary environment. Being granted the thru privilege of attending the 23rd International Food and Agribusiness Management congress in Atlanta, USA, has yielded a highly valuable and charitable experience to me.

The memorable IFAMA week started off early on Sunday morning. Not being influenced by any prior knowledge on my teammates backgrounds, four young ambitious students from two different Universities ran off with a copy of the cases subject to the student case study competition. The challenge was considerable and the learning curve proved to be impressive. Reflecting on this day I perceive that we went through a mental rollercoaster which challenged both our hard and moreover soft competences. It has been remarkable to see how the team members intuitively end deliberately bundled their skills and competences in to a project team that was operating under strict time pressure. We were just allowed to spend four hours on developing a strategy to address the issues and opportunities presented by the case. Overall it is my conception that we have been able to deliver a honourable product and where able to present our recommendations in a professional and attractive way. Having been part of this pressure cooker experience will allow me to respond and adjust to various situations in my future professional career being it in project management, strategic management or even crisis management.

Personally I perceived the competitive element for our team to be distinct from winning the student case study competition. Obviously it would have been nice to reach the final but reaching an effective and efficient collaboration was to me the greatest challenge. I feel we have achieved this as a team. Having being plunged in the deep end might be the best way sometimes of learning how to swim. Based

on the feedback we were able to receive on our performance and my personal impression of the process we went through I can say that I am proud of what we have achieved and what I have learned. I truly think that this experience will help me to recognise and address various issues and behaviours when working with unfamiliar collaboration partners in the future.

During the symposium and conference I met many different inspiring people from highly diverse backgrounds in either the academic field or corporate industry. My objectives during these days have been threefold. First I was granted the opportunity to present an academic research paper on behalf of my co-authors. Secondly I wanted to explore potential new fields of research which are of my personal interest. And finally I had the objective of exposing myself to academics and business people to present myself and gain confidence in the interpersonal process of networking.

Having the privilege of presenting at a scientific symposium was a first time experience to me. This opportunity allowed me to both work on my presentation skills and to obtain valuable feedback on the presentation and the research performed. Though the common background of the audience was in Agriculture or Agg as I learned, I feel that my presentation could have been more funneled. This by providing a more elaborate and broader context to the research subject. Capturing the audience with an intriguing example and taking them on a gurney toward the specific insights our research yields with regard to addressing these bigger picture of it al. This feedback is highly valuable to me. I became more aware of the art of presenting for a diverse audience and the feedback I received will help me to master this art as I get more experienced over time.

The remainder of the symposium I have been shopping from the impressive menu of interesting research presentations. Apart from attending a presentation by my academic supervisor I have been able to attend several interesting sessions in which the tremendous variety in the academic agricultural research field raised my awareness on the contributions academics in our field make to the daily lives of many around the world. Being it though examining and educating farming practices in Nepal, studying the availability of real-time market intelligence for remote smallholders in Argentina or the assessment of the performance of an online course on information technology to Australian students. Getting introduced in this vast range of research topics opened a whole new world to me and made me realize that I could make a real contribution in my on discipline of food technology innovation.

The learning and inspiration went on as the symposium came to an end and the congress started. Several admirable speakers addressed the audience in a capturing way, making sure the common objective of setting a long term goal on food security planted into the souls of the industry, academics and moreover young talent that is so urgently needed to enable to sustain the livelihoods of humanity. These captains of industry enlighten a spark and a deep willingness to be one of the many young professionals that will take on the challenge and impact the lives of an ever growing population. The open atmosphere allowed me to feel comfortable in networking and resulted in many valuable contacts to me.

Let me express my sincere appreciation for offering me this life changing experience!

## Appendix IV. WUR Student Engagement Report

Period: June 1, 2012 – July1, 2013

The Coordinators of GCFSI at WUR (GCFSI@WUR)

**Domenico Dentoni and Dimitrios Mitsopoulos**

Management Studies Group (MST)

Wageningen University and Research Centre

### 1. Participation in student competitions

IFAMA conference June 2013 in Atlanta, USA

Assistant professor Domenico Dentoni in collaboration with assistant professor Stefano Pascucci selected and trained six (6) MSc students from Wageningen University (WUR) who participated in the IFAMA conference, June 2013 in Atlanta, USA. The students were in two different teams, specifically:

- The first team consisted of two (2) MSc and two (2) PhD students from Wageningen University and Michigan State University (MSU) respectively. The students were funded by the GCFSI to attend the conference and to participate in the competitions, workshops and all kind of sessions (students 'reports in attachment). Mentors of the team were Charles McKeown, Professor at Agricultural Food and Resource Economics at MSU and Domenico Dentoni. The WUR students were:
  - Sebastiaan Van Leur (Management Studies)
  - Jelle Baumgartel (Management Studies)

The team did a very good job according to the attendants and the committee despite the fact that they met just the previous day before the first round of the competition. Unfortunately the team did not succeed to pass to the next and final round. It should be mentioned that all the teams (22 in total from all over the world) were divided in four groups and only one team from each group could pass to the final round. The judges' comments about the students' presentation at the Global Student Case Study Competition in Atlanta are reported below:

#### Team: MICHIGAN STATE/WAGENINGEN

Judge	Situation Analysis	Originality & Creativity	PowerPoint Presentation	Oral Presentation	Responses to Judges' Questions	Other Comments
Judge 1	Did not really tie in social media aspect but overall approach to solution well thought out.	Average	Below average	Excellent – very professional and articulate	Above average – explained how arrived at conclusion which was not born out in presentation.	Good coordination even though from different schools.
Judge 2	Solution for supporting selling, very clear & detailed	Good in direction	Poor job	Clear, explain the intention	Team work together responds very well.	

The second team consists of (4) MSc WUR students. Mentor of the team was Stefano Pascucci, assistant professor at Wageningen University at Management Studies group. The four students were funded by StartLife but they were promoted, collaborated with the GCFSI. The students were:

- Alison Jenkins (Management Studies)
- Aglaia Fischer (Management Studies)
- Marieke van Deelen (Management Studies)
- Jasper de Lange (Management Studies)

The WUR team passed to the final round and achieved to take the third place in the competition. A great job indeed by the mentor, the students and the whole team in general. The judges' comments about the students' presentation at the Global Student Case Study Competition in Atlanta are reported below:

**Team: WAGENINGEN UNIVERSITY (Preliminary Round)**

Judge	Situation Analysis	Originality & Creativity	PowerPoint Presentation	Oral Presentation	Responses to Judges' Questions	Other Comments
<b>Judge 1</b>	Nicely structured situation analysis well done.	Suggested model was good. However could have been explained in a better way	Nicely structured presentation	Whole team participated in the presentation	Questions were handled by the team nicely and were satisfactory	Should have focus more on the recommendation and solution
<b>Judge 2</b>	Liked your set up of the issue & recognition – liked your providing an agenda – SWOT – listing of facts; facts we the audience knows – so why do they matter?	Scenario assessment was creative way to think about the evolving situations	Nice slides	Well done	Each person did one question/rather each question received one answer – good	Recognized social media but didn't do much with it.
<b>Judge 3</b>	Good and polished. Well done, and good detailed consideration of facts and options. Please make sure to clearly state your conclusions + recommendations to limit confusion about what you are proposing. Very nice efforts on the game that was mentioned at the end.	Original and creative work on the power points. Well done.	Very nice PowerPoint. Good use of colour.	Again, nice and polished.	Poised job of responding to and answering the questions	

**Team: WAGENINGEN UNIVERSITY (Final Round)**

<b>Judge</b>	<b>Situation Analysis</b>	<b>Originality &amp;</b>	<b>PowerPoint</b>	<b>Oral</b>	<b>Responses to Judges'</b>	<b>Other</b>
<b>Judge 1</b>	<ul style="list-style-type: none"> <li>•Two market growth</li> <li>•Understood the cultural transfer</li> <li>•Expand market channels and</li> <li>•Southern Supply chain.</li> <li>•Clear. Market Reservations</li> <li>•Focus. Sales in Targets.</li> </ul>	<ul style="list-style-type: none"> <li>•Understanding the creative aspect of growth in market. New product development. Quality of southern production?</li> </ul>	<ul style="list-style-type: none"> <li>•Marketing approach – clear. Not. Clear. On market strategies</li> </ul>	<ul style="list-style-type: none"> <li>•Clear presentation on how the strategy will execute.</li> </ul>	<ul style="list-style-type: none"> <li>•Clear. Answers to production. Problems/more. Comments from others.</li> </ul>	<ul style="list-style-type: none"> <li>•Need to share in the comments answers.</li> </ul>
<b>Judge 2</b>	<ul style="list-style-type: none"> <li>•Concise overview of situation and focus growth approach. Keep market focus and to exit where not profitable – clarity in direction.</li> </ul>	<ul style="list-style-type: none"> <li>•Expansion of supply production, farmer education are creative thoughts.</li> </ul>	<ul style="list-style-type: none"> <li>•Very well laid out and organization of presentation</li> </ul>	<ul style="list-style-type: none"> <li>•Engaging presentation</li> </ul>	<ul style="list-style-type: none"> <li>•Connection of case and business knowledge to questions, good involvement of team</li> </ul>	
<b>Judge 3</b>	<ul style="list-style-type: none"> <li>•Presentation and analysis quite complete</li> <li>•Market analysis a bit too descriptive and not enough analytical</li> <li>•Challenges well described</li> </ul>	<ul style="list-style-type: none"> <li>•Significant risk recognized or brand through delocalization of product for portfolio</li> </ul>	<ul style="list-style-type: none"> <li>•Used to support oral communication mainly use much graphical.</li> </ul>	<ul style="list-style-type: none"> <li>•Good. Several culture were represented teamwork.</li> </ul>	<ul style="list-style-type: none"> <li>•Less of a team work when answering questions</li> </ul>	<ul style="list-style-type: none"> <li>•Cover all items expected from many people/supply/d iversified market</li> </ul>
<b>Judge 4</b>	<ul style="list-style-type: none"> <li>•Sound job here.</li> </ul>	<ul style="list-style-type: none"> <li>•Good response to social media question</li> <li>•Onboarding program -&gt; good idea</li> </ul>	<ul style="list-style-type: none"> <li>•Well-articulated slides! Especially the last summary slide</li> </ul>		<ul style="list-style-type: none"> <li>•Only one team member responded to most of judges questions. Should have shared that task more</li> </ul>	
<b>Judge 5</b>	<ul style="list-style-type: none"> <li>•Two market growth.</li> <li>•Understood the cultural transfer</li> <li>•Expand market channels</li> <li>•Supply quality identification</li> <li>•Clear market delineations</li> <li>•Focus sales.</li> </ul>	<ul style="list-style-type: none"> <li>•Understood the creative aspects of growth in the market</li> </ul>	<ul style="list-style-type: none"> <li>•Marketing approach was clear</li> <li>•Some disjointed focus</li> <li>•Presentation could have had more detail.</li> </ul>	<ul style="list-style-type: none"> <li>•Clear presentation on how the strategy will execute</li> </ul>	<ul style="list-style-type: none"> <li>•Clear answers to production needed more team participation</li> <li>•Overall a good market strategy but a bit lacking in overall company</li> </ul>	<ul style="list-style-type: none"> <li>•Needed to share in answering questions</li> </ul>

## 2. Participation in conferences

### IFAMA conference June 2013 in Atlanta, USA

Sebastiaan Van Leur (Management Studies) was selected also by Dr. Dentoni to present his paper during the IFAMA conference 2013 in Atlanta.

### First International Conference on Global Food Security September - October 2013 in Noordwijkerhout, The Netherlands

The GCFSI@WUR informed about the funding opportunity by GCFSI to sponsor two MSc/PhD students from two groups (Management Studies, Plant Production Systems) and one MSc/PhD student from an institute (Centre for Development and Innovation) at Wageningen University to participate and to present their work in the above mentioned conference. The groups and the institute were selected due to the fit of their work with the aims of the Center. The professors from those groups selected their students and the GCFSI@WUR approved the selection. The students were:

- Sheida Sattari (PhD student in Plant Sciences, subdivision Plant Production Systems, supervisor Prof. Ken Giller)
- August Raimy Sjauw-Koen-Fa (PhD student in Management Studies group and senior economist in Rabobank, supervisor Prof. Onno Omta)
- Betty Adjei (PhD student in Knowledge, Innovation and Tehnology, supervisor Prof. Sietze Wellema).

Except the PhD student Koen-Fa, the rest two students were accepted in the conference to present their work. These students are those who will eventually funded by the GCFSI.

## 3. Engaging with students via social networking devices, discussion sites and media

- GCFSI@WUR has launched a website ([www.gcfsiatwur.org](http://www.gcfsiatwur.org)) which is updated regularly. Via the website students and other individuals can be updated about the progress of the Center's work and conferences and activities that fit with the aims of the Center, to have the option to download documents related with the work and also to have the opportunity to comment and to suggest on any updates or activities.
- GCFSI@WUR has created a Facebook page ([www.facebook.com/GCFSIatWUR](http://www.facebook.com/GCFSIatWUR)) to disseminate information among students (individuals or student communities) about the activities of the GCFSI, to increase the publicity of the website and the GCFSI and to engage with the students through workshops, seminars and thesis opportunities and other kind of collaborations. There are already eighty-six (86) students and academics followers of the website!
- GCFSI@WUR has created three posters about GCFSI@WUR which were placed in different locations at the building of Social Sciences to inform and attract students and scientific staff to collaborate with the Center at WUR advertising the website ([www.gcfsiatwur.org](http://www.gcfsiatwur.org)) and the provision of various opportunities.
- GCFSI@WUR has informed by email students at Wageningen University about the first round of student innovation challenge grants by the GCFSI.

#### 4. Engaging with students through the staff

- GCFSI@WUR has informed by email academic staff at Wageningen University about the first round of student innovation challenge grants by the GCFSI.

#### 5. Collaboration with student communities

- GCFSI@WUR collaborates with the International Student Organization Wageningen (ISOW-[www.isow-wageningen.nl](http://www.isow-wageningen.nl)), an organization that has more than 1.500 followers on their Facebook page and hundred regular subscribed members. The agreement includes a very close collaboration between the interested parties and it has begun with the announcement of the launch of the GCFSI in the newsletter of the previous month. In addition to that, via their weekly newsletter to WUR community will inform the students about the activities of the Center and any funded opportunities that provides. In that way the GCFSI@WUR achieves to reach thousands of WUR students quickly and easy. A poster that has already been created was placed at the ISOW building. An event and a presentation of the GCFSI will follow after the summer in ISOW building.

#### 6. Supervision of dissertations and internships

- Dr. Dentoni has informed students and staff via posters and emails about possible thesis topics within the aims of GCFSI. Students who have an interest about the GCFSI's work they will do their thesis dissertation or internship under the supervision of Dr. Dentoni who is 1st or 2nd supervisor depending on the subject.
- Domenico Dentoni now supervises five (5) MSc, PhD or pre-PhD students doing research and training on GCFSI topics:
  - Giuseppina Piga (MSc student in University of Sassari - UniSS): sponsored internship in Wageningen University by the EU Erasmus Programme
  - Noor Ali Amir Ali (MSc student): MSc thesis on role of multi-stakeholder partnerships on the market accessibility of small and medium enterprises in developing countries.
  - Sebastiaan Van Leur (MSc student): internship at Progreso, a Dutch NGO working globally on climate change topics in multi-stakeholder settings.
  - Dimitris Mitsopoulos (pre-PhD student, i.e., PhD to be started in 2014): the relationships between multi-stakeholder partnerships, its' private sector members' stakeholder orientation and their strategies in relation to GCFSI Megatrends.
  - Silvia Perez Perdomo (PhD student): the impact of multi-stakeholder innovation partnerships on farmers' ambidexterity in Uganda, Rwanda and Democratic Republic of Congo.
- As leverage funding of GCFSI, Domenico Dentoni has prepared two grant applications to bring four PhD students at WUR on themes related to the GCFSI:
  - Suryani Durham, applicant for PhD student position with funding from the Malaysian Government in the area of Agribusiness Small- and Medium-Sized Enterprises' Development & Innovation.
  - Three PhD students with funding from the Dutch Ministry of Foreign Affairs & Dutch Academy of Sciences (NWO-WOTRO) in the area of Food System Transformation, Micro- and Small-Size Farmers Choices & Public-Private Innovation Platforms; one student in collaboration with MSU Department of Agricultural Economics.



**GLOBAL CENTER**  
FOR FOOD SYSTEMS INNOVATION

**MICHIGAN STATE**  
UNIVERSITY

**Director**

Ajit Srivastava, Ph.D.  
Professor and Chair  
Biosystems and Agricultural Engineering  
College of Agriculture and Natural Resources  
College of Engineering  
Tel: (517) 353-7268  
[srivasta@msu.edu](mailto:srivasta@msu.edu)

**Director**

Reitumetse Mabokela, Ph.D.  
Professor and Assistant Dean  
International Studies  
College of Education  
Tel: (517) 353-6676  
[mabokela@msu.edu](mailto:mabokela@msu.edu)