



Sustainable Agriculture and Natural Resource Management Collaborative Research Support Program

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Trip Report: Kenya and Uganda 6-23 October, 2010

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Purpose of Trip:

1. To visit and evaluate capabilities of blacksmith/welding/fabrication facilities in each study area to manufacture simple reduced tillage implements from detailed drawings;
2. To meet with host-country partners to refine and develop details of experimental phase;
3. To discuss data input progress and initial findings of baseline surveys;
4. To assemble stakeholder advisory groups in each study area and meet with them to define current farming systems, discuss sustainability shortfalls of current practices, and brainstorm alternative practices that improve sustainable food security;
5. To identify as many on-station and on-farm trial locations as possible.

Sites Visited:

Makerere University and National Agriculture Research Organization, Kampala; Kapchorwa and Tororo in Uganda.
Manor House Agricultural Center, Kitale; and SACRED Africa, Bungoma, in Kenya

Description of Activities:

During the trip we identified one fabrication shop with clear ability to manufacture a multi-use tillage implement from detailed drawings, as well as at least one shop at each area capable of copying a prototype built at the first shop. We solidified our study design and confirmed one on-station and four on-farm sites at each of our four study areas (Kapchorwa and Tororo, Uganda, and Bungoma and Kitale, Kenya). Two sites were located at Kapchorwa during the trip and two afterward. Each site was GPSed and the conditions and expectations discussed with the farmers and managers, all of whom are eager to participate in the project. Nine of the on-farm sites are controlled by men, six by women, and one was clearly jointly controlled by wife and husband. We held advisory group meetings at each location that were well-attended by men and women opinion leaders of each community. These were active, participatory meetings where we forged consensus on the typical current system, the shortcomings of that system with respect to soil quality/sustainability, the concepts of CA, how specific CA practices address shortcomings of the current system, and which practices we should attempt to evaluate in on-station and on-farm

trials. Interactions during the trip went far to develop a cohesive team and common understanding of our objectives and roles in the project.

Training Activities Conducted:

Program type (workshop, seminar, field day, short course, etc.)	Date	Audience	Number of Participants		Training Provider (US university, host country institution, etc.)	Training Objective
			Men	Women		
Workshop	Oct 14	farmers	29 – W	29 – M	University of Wyoming	Develop local CA advisory group and identify practices and sites
Workshop	Oct 18	farmers	22 – W	22 – M	University of Wyoming	Develop local CA advisory group and identify practices and sites

Itinerary:

October 6-7: travel, Denver to Entebbe, Uganda;

October 8:

1. Makere University, Kampala, Uganda: meeting with Co-PIs Bernard Bashaasha and Rita Laker-Ojok, grad student Isaac Chepkurui, and soil science professors Dr. John Baptist (JB) Tumuhairwe and Dr. Ateenyi Twaha, both of whom have been involved with CA projects. Discussed Uganda baseline survey data entry progress with Bashaasha and Chepkurui. Discussed and agreed on study design with one on-station and four on-farm sites at each study area.
2. National Agriculture Research Organization (NARO) Agricultural Engineering & Appropriate Technology Research Center (AEATREC), Kampala, Uganda: Met with supervisor Okurut Samuel and shop manager Richard about CA project and manufacturing of minimum till equipment;
3. Africa 2000 Network, Kampala, Uganda: Meeting with executive director Frederick Musisi Kabuye to discuss successes and failures associated with CA project in eastern Uganda;

October 9-10: Travel to Manor House Agricultural Center, Kitale, Kenya, with AT Uganda director Rita Laker-Ojok and Jim Norton, engineer and volunteer to design minimum till equipment;

October 11:

1. Joined by Dominic Sikuku, East Africa LTRA field coordinator, who traveled with Norton for remainder of trip;
2. Met with MHAC SANREM coordinator Dennis Shibonje to discuss baseline data entry progress and initial impressions from surveys. Dennis hosted meetings with four artisan/manufacturing shops:
 - a. Met artisan/welder/mechanic Sammy Omondi and mfg partners to discuss possible mfg of minimum till implement;
 - b. Visited farm implement repair business;
 - c. Visited two other chaotic repair/fabrication shops;
3. Travel to Bungoma, Kenya.

October 12:

1. Met with Johnstone Odera, SACRED Africa SANREM coordinator to discuss baseline data entry progress and initial impressions from surveys;
2. Visited Brebamn Engineering fabrication shop in Bungoma;
3. Visited Mabanga Agriculture Technical Training Center/Agriculture Technical Development Center, Bungoma. They operate a CA project and own no-till planters and minimum-till implements: Met with Officer In Charge Peter Barasa Khaoya and Design & Fabrication Officer Hendricks Wakochwe;
4. Travel to Kapchorwa, Uganda.

October 13:

1. Joined by Julian Nyachwo, AT Uganda, Prof. Bashaasha, and grad student Chepkurui;
2. Travel to Kwsir Subcounty Headquarters to inspect potential on-farm trial location. Approved steeply sloping maize field chosen by Tulwo Producer Farmers Group and owned by Mbayin Jackson;
3. Visited NARO Research Center, Kawanda, for potential on-station site. Station manager Nyangas Simon showed us potential fields, which are mostly leased to local farmers and in continuous maize;
4. Visited Atari Village sublocation to inspect second potential on-farm trial location. Gently sloping field selected by farmers group and owned by Florence Maunya. Florence rotates wheat, beans, Irish potatoes, and maize. Tentatively approved the location;

October 14:

1. Kapchorwa Advisory Group Meeting, Masha Hotel, Kapchorwa: 29 people attended. Provided overview of SANREM program and east Africa LTRA, role of advisory groups at each study site, CA concepts, discussed and came to consensus on most common current agricultural practices for maize production, discussed short comings of the current system, and how CA practices might address those shortcomings. Listed and prioritized CA practices for potential field trials;
2. Visited 2nd potential Kapchorwa on-station site adjacent to new KACOFA facilities with Bashaasha, Sikuku, and KACOFA board member. Decided on Kawanda site.
3. Travel to Tororo;

October 15:

1. Joined by Nambozo Ketty, Field Coordinator, AT Uganda-Mbale;
2. Visited implement seller who is on advisory group. Sells several brands of ox plows but no minimum tillage implements;
3. Visited hammer & chisel cold-forging business that makes all parts for plows;
4. Visited Busitema University and met with University Secretary Dr. Maurice A. Muhwezi-Murari and Professor Olietho Godfrey. Toured facilities for teaching fabrication and metalworking. They own several CA implements from past project. Laker-Ojok, Bashaasha, and Norton, Sr., departed for Kampala.

October 16:

1. Visited/selected Tororo on-farm study sites in Molo and Kisoko subcounties, plus on-station site:
 - a. Molo 1: Adrian Oketch;
 - b. Molo 2: David Otapong (Molo contact/farmers group chair is John Owor Oiwingo);
 - c. Kisoko 1: Suna Joachim;

- d. Kisoko 2: Faith Osinde (Kisoko contact/farmers group chair is Twingishe Dinah);
 - e. On-station: District Agricultural Training and Information Center (DATIC), Mr. Wandera, manager. Norton and Nambozo drafted letter to administrator requesting access;
 - 2. Tororo Advisory Group Meeting: 17 people attended. Same agenda as in Kapchorwa;
 - 3. Travel to Bungoma, Kenya (Norton and Sikuku). Nyachwo departed for Kampala.
- October 17, Sunday; work and rest in Bungoma.

October 18:

- 1. Rejoined by Julian Nyachwo and by Judith Odhiambo, UWyo PhD student recruit;
- 2. Bungoma Advisory Group Meeting: 22 people attended. Same agenda as in Kapchorwa and Tororo;
- 3. Soils research group meeting to discuss research protocol. Attended by Norton, Okalebo, Mukhwana, Sikuku, SACRED staff, and Moi graduate students;
- 4. Visited Mabanga as potential on-station site because not enough space on the SACRED campus. Agreed to locate on-station site at Mabanga; Norton and Mukhwana drafted letter to administrator requesting access;
- 5. Visited/selected Bungoma on-farm study sites in Nalondo sublocation:
 - a. Nalondo 1: Protus Opicho
 - b. Nalondo 2: Lawrence Wanyonyi Ngichabe
- 6. Sikuku departed for Kitale;

October 19:

- 1. Norton and Mukhwana visited/selected Bungoma on-farm study sites in Kanduyi sublocation:
 - a. Kanduyi 1: Boniface;
 - b. Kanduyi 2: Bonventure Wanyama (ultimately rejected because of lack of space);
 - c. Kanduyi 3: Michael Martin Sifuna.
- 2. Traveled to Kitale/Manor House Agricultural Centre.

October 20: Joined by Sikuku, MHAC instructors Dennis Shibonje and Joshua Okua, and MHAC students for the day.

- 1. Inspected/selected Kitale on-station study site at MHAC;
- 2. Visited potential Kitale on-farm study sites in Naisambu and Wekhonye sublocations:
 - a. Naisambu 1: Michael Cheboit (Naisambu farmers group manager is Chris Kimaiyo);
 - b. Naisambu 2: Leah Keitany (farm manager: Vincent Wanyonyi);
 - c. Wekhonye 1: James Boaz Omondi;
 - d. Wekhonye 2: Billiah Wekesa.

October 21: Kitale Advisory Group Meeting, Naisambu Community Center. 30+ people attended. Same agenda as other advisory group meetings.

October 22: Norton travel to Kampala;

October 23: Meeting with Laker-Ojok, Bashaasha, and soil science professors Dr. John Baptist (JB) Tumuhairwe and Dr. Ateenyi Twaha.

October 24 (Sunday): work and shop in Kampala;

October 25: return to US.