UG107 William J Zimmerman

Conservation Ag in Eastern Uganda 2017

After landing late Tuesday night, May 16, in Entebbe Airport, I spent a quick night in Kampala only to check out the next morning. More travel was imminent on my tight schedule. After my orientation with Maria Nakayiza (project coordinator) and security briefing at the headquarters of the Catholic Relief Services (CRS)-implemented USAID Farmer-to-Farmer (F2F) program, we hit the road for a 3-hr trip to Iganga in Eastern Uganda. My home away from home was to be Mum Resort.

Iganga is a center of the Busoga region, a traditional Bantu kingdom. Iganga town lies about 30 min up the highway from Jinja, the 2nd-largest city in Uganda. The regional language is Lusoga. As usual, I managed to learn a handful of words and phrases during my limited stay, but was mostly focused on the training agenda. My singular regret on each F2F assignment is that I can't spend adequate time trying to learn the area language. Actually, I had hoped to expand my knowledge of Swahili, but that is not a relevant idiom here. English is an official language stemming from British colonialism but training with local farmers required a translator, of course.

Approximately 11 km north of Iganga town lies the village of Namungalwe. This daily commute became very familiar as we drove around to various parishes in that area for 2-day trainings over the next weeks. My assignment was to teach field techniques for what is now popularly termed climate-smart agriculture (CSA). These methods are simply well known facets of conservation agriculture (CA) under a comprehensive new umbrella.

Namungalwe Area Cooperative Enterprise (NACE) is a maize marketing cooperative structured with seven (four active) Rural Producer Organizations (RPOs). NACE members are small holder farmers dealing with degraded soils, less predictable rainy seasons and other effects of climate change. But regional agriculturists have also contributed to climate change and global warming by continued traditional field burnings, inefficient use of charcoal, deforestation without afforestation, *etc.* And poor soil conditions and erosion have always been problematic.

NACE has received several F2F volunteers in the last few years on subjects ranging from agribusiness to post-harvest storage. The initial implementer was CNFA and following their project completion CRS took over managing F2F. The latest item on their checklist was technical assistance in combating effects of climate change.

My research before arrival to Uganda indicated that the government, and NGOs, have had initiatives on CSA for at least a decade. So conservation practices are not exactly unknown. My objective - modified after introduction and perusal of the situation - was to clarify how to perform a selection of such techniques, and to promote small demonstration plots that transition into CA. With experience and positive results, we hope that others might eventually be persuaded to perform soil erosion control, composting, and the more daunting methods of minimum tillage.

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My mantra to everyone during this nearly 3-week training was the Three Principles of CA:

- 1. Minimum soil disturbance
- 2. Maximum soil cover
- 3. Crop rotation (and mixing)

My major themes were soil fertility (as always) and water management. My rules of thumb were to "know your land" (walk the field during a heavy rain to really gain insight on soil erosion), and to "start small" when making any changes to CA in order to gain experience and comfort before expanding its use.

Some topics were familiar to NACE members – cover crops (but their definition differed from mine), intercropping, crop rotation, and weed control. Erosion control was a bit less familiar to most – bunds, contours, vegetative barriers, plant residues. As was rainwater harvesting. Unknown was minimum tillage because this practice mandates a completely different mindset. For example, not using a traditional oxen plow, meaning mouldboard plow. Ripper plows are not well known but they are available in Uganda (one manufacturer resides in Kenya, but local manufacturers could also construct them). With CA and minimum tillage, we are talking about laying rip lines or just creating permanent plant basins with hand hoes. And connected to everything is a continuous composting system on and near cultivated fields.

Field trainings were concise because farmers have other work at this time of year, and also need to prepare for their first maize harvests. We worked mostly on methods to lay contours (A-frames and water tube levels), earth bunds and other erosion control methods, plant basins, and composting.

Each RPO membership had a different collective personality and leader, but field trainings were similar and a bit redundant. But always rewarding to perform and (fingers crossed) motivational enough to instigate some changes. This will require NACE and RPO leaders to actively engage with CA, manage demonstration plots on bits of their own land, not just to rely on fields of members, and to stay actively informed, ready to offer advice to others. Of course, this duty would be on top of their many organizational and marketing duties.

Finally, one Sunday I did manage a day trip to visit the White Nile....fascinating bird life, view of Lake Victoria, etc., as well as fish farms and a port in the distance. My first visit to the intriguing nation of Uganda has proved to be valuable and interesting. Unfortunately, Kampala remains unknown to me as it merely served as a way station into and out of Uganda. Oh well, there's always next time......