Farmer-to-Farmer Zambia
Special Program Support Project
Final Report

NCBA CLUSA
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NCBA CLUSA Farmer-to-Farmer Zambia

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Region: Zambia/Southern Africa

Final Milestone Report

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Work Plan Summary

This milestone report marks the end of a successful one-year Farmer-to-Farmer (F2F) project in Zambia, conducted from March 23, 2015 to March 22, 2016 as part of the Volunteers for Economic Growth Alliance (VEGA) F2F Special Program Support Project, funded by the U.S. Agency for International Development (USAID). The project exceeded the original work plan indicators, completing nine volunteer assignments instead of eight, and assisting four host organizations instead of three. Volunteers provided technical assistance to smallholder farmers on a wide range of topics impacting the peanut value chain, including aflatoxin reduction, soil fertility and soil management techniques, improved peanut seed production, value addition activities, and cooperative enterprise development and marketing.

NCBA CLUSA led the initiative by creating profiles for each of the host organizations to provide volunteers with background on the history of the host organizations, their challenges and needs. Scopes of work (SOWs) were developed in coordination with Volunteer Coordinator Alex Hansingo and with input from the host organizations, outlining volunteer objectives and tasks during their assignment, along with the required expertise.

The recruitment and selection process for volunteers began with outreach through NCBA CLUSA's F2F volunteer repository along with outreach through public recruitment websites such as Devex and Idealist. Candidates were carefully vetted by NCBA CLUSA staff to ensure that they possessed the technical skills requested by the host organizations and the ability to operate within a different cultural context and engage with the farmers in effective training sessions and workshops. NCBA CLUSA staff also conducted reference checks for each volunteer per the Government Accountability Office (GAO) recommendations. This process included emailing volunteers' references and having them fill out a reference form, and utilizing NCBA CLUSA's WatchDOG procurement software that checks the SAM Exclusion List, Office of Foreign Assets Control, and United Nations Sanction Lists.

NCBA CLUSA's selected volunteers traveled to the Chipata and Katete districts of Zambia's Eastern Province to work with the host organizations, share their expertise and best practices with the farmers, and make recommendations to the hosts and farmers on how to make improvements. Over the life of the project, volunteers trained 968 people, 59.6% of whom are women, benefitting 5,517 farm family members. Volunteers directly assisted 1,044 people, 59.4% of whom are women. The high numbers of women trained and women directly assisted are noteworthy given the host organizations' male leadership. This is largely due to the fact that peanuts are traditionally produced by women in Zambia. It also demonstrates the host organizations' commitment to supporting all of their smallholder farmer members. NCBA CLUSA leveraged 167 volunteer days, worth $78,490 in volunteer time, and an additional $22,129 in resources was leveraged by the volunteers.

These results far exceed the original targets for the project, largely because of the partnership that was established with Full Belly Project (FBP), a North Carolina-based nonprofit that develops and distributes simple income generating agricultural devices in the U.S. and in developing countries. FBP's Research and Development Director Jock Brandis, and long-time FBP volunteer Randy Shackelford each completed two assignments for NCBA CLUSA's Zambia F2F project. Their assignments were longer than the average length of fourteen days because of the innovative technology they wanted to demonstrate, share, and test thoroughly. In addition, over the course of eight weeks (40 days) Brandis

developed the ozonation equipment that Shackelford brought on his second assignment; this $18,800 in volunteer time accounts for most of the resources leveraged by volunteers in the U.S. The completion of a ninth assignment also contributed to the higher numbers of persons trained and volunteer days.

Volunteer Assignments in FY15 and FY16					
	Quarter 1	Quarter 2	Quarter 3	Quarter 4	
	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Total
	2015	2015	2015	2016	
Zambia	0	2	1	6	**9**

Indicator Matrix

Indicator	Target	Project Total
Number of Volunteers	8	9
Number of Volunteer Days	112	167
Number of Host Institutions Strengthened	3	4
Number of Persons Trained	240	968
Number of Farm Family Members Benefitted*	1,368	5,517
Hectares under Improved Production Technology	192	1,400

*Based on 6.7 average household size in Eastern Province, Zambia (file:///C:/Users/vbunker/Documents/baseline-zambia.pdf, p. 18)

Activities by Country

Zambia – Overview

NCBA CLUSA HQ staff, with support from Mr. Hansingo, successfully facilitated nine volunteer assignments over the course of the project. Assignments ranged from 15-28 days, which is longer than the two week average. Volunteers provided technical assistance to four host organizations, including Chipata District Farmers Association (CDFA), Community Oriented Development Program (CODEP), Every Home for Christ (EHC), and Community Markets for Conservation (COMACO). HQ staff managed pre-departure and post-assignment logistics including providing orientation information, booking flights, and conducting all the necessary follow-up with volunteers after their assignments. Mr. Hansingo coordinated the on-the-ground logistics including lodging, transportation, and coordinating training schedules with host organizations. He accompanied each volunteer throughout the assignment, helped facilitate trainings and field visits, provided translation when necessary, and set up auxiliary trainings and meetings with other local stakeholders.

At the outset, 6 assignments were to be completed by the end of December 2015. However, logistical challenges arose due to a lengthy re-registration process in Zambia which resulted in a longer start-up time than anticipated. Furthermore, one volunteer, slated to conduct a soil fertility assignment in December 2015, cancelled his trip at the last minute for medical reasons, leaving little time to find a replacement before the December milestone was due. As a result, NCBA CLUSA completed two assignments by the end of 2015. These delays, however, did not affect overall project implementation as NCBA CLUSA effectively managed six assignments in the final three months of the project, including the additional ninth assignment that was added to the project with VEGA approval.

Other small changes to the program included a shift in several assignment SOWs as were originally approved by VEGA, to better fit host organizations' needs and desired objectives. This is a testament to VEGA and the F2F program's flexibility and understanding that host organizations' needs are the biggest priority. For example, after the aforementioned volunteer dropped out, the assigned host organization, CODEP, decided that their main priority was receiving a TOT session in soil testing. This request was subsequently integrated into volunteer Ryan Hottle's assignment. After completing his soil fertility trainings with EHC farmers in Katete, Mr. Hansingo and Mr. Hottle traveled to Chipata to conduct the TOT with CODEP members also.

Unfortunately, Mr. Hottle's trip report brought to light concerning information about EHC, which recently started experiencing leadership challenges due to program restructuring. Although this created a degree of tension during one of Mr. Hottle's trainings, he reported that he was still able to deliver an effective training, and it did not damper his experience. NCBA CLUSA coordinated with Mr. Hansingo to ensure an appropriate follow-up was completed, with Mr. Hansingo meeting EHC leadership to make sure they understood that future F2F meetings must be platforms for volunteer trainings and not organizational matters such as the one that caused disruptions during Mr. Hottle's training. Subsequent volunteer trainings were completed without incident.

In February 2016, NCBA CLUSA determined the program budget could support a ninth assignment; HQ staff quickly coordinated with Mr. Hansingo to identify the most pressing host organization needs and develop a scope of work for VEGA approval. Following Bob Shumaker's soil fertility assignment in October 2015, CDFA had been hoping to find ways to better support their member cooperatives. One of Shumaker's recommendations is to focus on the cooperative business model as a way to pool farmers' resources to purchase inputs and aggregate products to receive better prices. Therefore, a cooperative enterprise development and marketing SOW with CDFA was developed for the ninth assignment. This assignment proved to be an important addition to the project.

Successfully facilitating six back-to-back assignments in the final quarter of the project would not have been possible without the flexibility and tremendous work ethic of Mr. Hansingo. All of the volunteers mentioned how much they enjoyed working with him. One former volunteer who participated in NCBA CLUSA's previous Zambia F2F project wrote in an email:

> I loved my experience with NCBA CLUSA in Zambia! I always recognized that it was a very special experience, but a recent assignment to another country with another program really brought to my attention how well organized the Zambia NCBA CLUSA program was (and I'm sure still is). I am pregnant so unfortunately am not in a position to be traveling internationally. But I just wanted to put in another good word for Alex Hansingo who I see from Facebook is thankfully still working with you. Alex was doing the work of the four people I worked with [on a different F2F project] and was still doing a better job. Alex has amazing foresight in planning assignments for the year, but I was most impressed by how well connected and respected he was in the communities we visited. I learned after working with him that the respect was well earned thanks to his passion and hard work. He's a gem indeed.

Assignment Descriptions

<u>Assignments 1 & 2: Aflatoxin Management with CDFA & CODEP</u>

The project's first two assignments were conducted by Jock Brandis and Randy Shackelford of FBP. According to their scope of work, the pair of volunteers were supposed to teach local farmers simple methods to reduce harmful aflatoxin contamination in peanuts, but they observed that most of the farmers

were already practicing good post-harvest handling and storage techniques to curb aflatoxin. Farmers were drying their peanuts in the sun and storing them in elevated granaries to reduce moisture and ensure airflow.

Jock Brandis and Randy Shackelford conduct the first aflatoxin testing tailgates in Africa and determine aflatoxin contamination levels in 15 minutes.

The volunteers then conducted the very first "aflatoxin testing tailgates" in CDFA and CODEP farmers' fields and on store shelves with the mReader, a portable testing kit that was developed by Mobile Assay, a Colorado-based technology company. Traditionally, testing involves mailing a peanut sample to a given country's Ministry of Agriculture, a process that in Zambia can take three to four weeks and rarely provides accurate readings. The rapid diagnostic testing capability of the mReader is a dramatic breakthrough. During the "tailgate tests," the volunteers ground up shelled peanuts in a blender powered by the cigarette lighter of a truck. Using a test strip modeled after immune testing performed in hospitals, a small sample of the blended peanuts was then inserted into a sensor connected to an iPad. Within fifteen minutes, an accurate reading appeared.

After testing samples from numerous fields, the results showed that the farmers' peanuts had very low aflatoxin levels, levels that actually met U.S. and European export standards. None of the peanut samples had a contamination level of more than 4 parts per billion (ppb), which is the European standard. When the volunteers tested processed peanut products off the shelves and in bags at warehouses, the aflatoxin levels were much higher, indicating that the main contamination points are not with the farmers, but further along the value chain in warehouses and with processors. Brandis and Shackelford then trained staff and lab technicians at the Zambia Agriculture Research Institute's (ZARI) Msekera Research Lab in Chipata how to use the mReader and donated the kit and iPad to the lab.

The volunteers also introduced FBP's universal nut sheller to farmers. This simple hand-powered technology reduces the time it takes to shell a 50 kg bag of peanuts from three days to one hour. It also reduces aflatoxin cross contamination from shell to kernel via the finger. The current cost of the machines is USD $75. Shelling is fast enough that 20 farm families can share one universal nut sheller, reducing the price to $3.75 per family, which is an affordable and very cost effective input for farmers. Five women's groups pooled resources to purchase the nut sheller from Zasaka, a local company that FBP had already been working with to manufacture the technology.

<u>Assignment 3: Improved Soil Fertility with CDFA</u>

This assignment was completed by F2F volunteer veteran Bob Shumaker, president of the Alaska chapter of the National Farmers Union. Shumaker has been a dedicated NCBA CLUSA F2F volunteer for several years. He volunteered twice with our previous Zambia F2F project and served also in Senegal last year with his wife. Shumaker has worked with CDFA before, so the organization was excited to host him again.

Bob Shumaker demonstrates how to use a solar water pump.

Shumaker's trainings covered topics such as soil selection for peanuts, soil testing, and correct use of

fertilizer, gypsum, and lime, which is dependent upon soil pH levels. He demonstrated two types of soil testing methods in the field and worked with the farmers to select eight demo plots to further increase farmer awareness and adoption of soil management techniques. Based on CDFA farmers' questions, he also covered several other related topics, including water management and marketing strategies.

Shumaker also visited with members of Chipata Farmers Cooperative (CFC), which CDFA and NCBA CLUSA helped form during NCBA CLUSA's previous Zambia F2F project. He was excited to learn about their progress as a cooperative and CFC wanted his guidance on cooperative development issues. Shumaker noted that CDFA was still managing CFC's funds and encouraged CFC to start its own bank account to become a more fully operational cooperative.

Assignment 4: Improved Soil Fertility with EHC

Ryan Hottle (second from left) conducts his first field visit with Zambia F2F program coordinator, Alex Hansingo (far left).

This assignment was completed by first-time volunteer Ryan Hottle, who holds a PhD in environmental science from Ohio State University (OSU) and serves as USAID Program Manager for OSU's International Programs in Agriculture. He also works with DiFD as a Science Advisor for a 5-year, 15 million pound climate smart agriculture (CSA) market systems investment program to support the scale up of CSA practices and market opportunities in Northern Uganda.

In testing soils on EHC farmers' lands, Hottle discovered a huge diversity of soil conditions with pH ranging from 6.1 to more than 9, in less than a kilometer. This means that blanket recommendations on lime and fertilizers cannot be made. Mr. Hottle trained farmers on demonstration site selection, soil pH and testing, application rates for lime, fertilization with phosphorous fertilizers and organic manure, crop rotation, and management of aflatoxin. In addition to working with EHC farmers in Katete district, Mr. Hottle also traveled to Chipata to conduct a TOT with CODEP farmers on soil testing methods.

Assignments 5 & 6: Aflatoxin Management with EHC, Aflatoxin Management – Phase II with CODEP & COMACO

Randy Shackelford introduces the universal nut sheller to Katete College of Agriculture students.

Shackelford returned to Zambia to complete another aflatoxin management assignment—this time with EHC—focusing on aflatoxin education and awareness and aflatoxin testing tailgates to further validate results from his and Brandis' findings during their first trip in September 2015. In addition to working with EHC farmers, Shackelford also trained students from the Katete College of Agriculture and the Chiyembekezo women's group. Shackelford's assignment also included a second SOW to work with Community Markets for Conservation (COMACO) on ozonation testing as a method to reverse aflatoxin contamination. Between trips Brandis developed an ozone injection device to kill aflatoxin in bagged peanuts. Shackelford brought the pilot technology to Zambia to test it at COMACO's facility, but when several of the parts malfunctioned, this portion of the

assignment halted. FBP decided to send Brandis to Zambia with replacement parts, and NCBA CLUSA coordinated Brandis' return trip into a F2F assignment.

Alex Hansingo (far left) and CFC smallholder farmers proudly show off their first constructed universal nut sheller.

Brandis fixed the ozonation device and continued inserting doses of ozone into bagged peanuts to try to determine the optimal dosage for reversing the contamination. The mReader was used to verify aflatoxin levels before and after ozonation, but they could not get consistent readings. FBP's pilot ozonation equipment did not achieve the anticipated results, but it is clear that ozonation can drastically reduce aflatoxin contamination, and FBP is hard at work conducting follow up tests on contaminated peanuts in the U.S. to refine their technology. COMACO was very encouraged by the progress made and seems committed to reducing aflatoxin at the processing and storage points in the peanut value chain.

In addition to the ozonation testing at COMACO, Brandis also conducted marketing training with CODEP farmers and coordinated with Mr. Hansingo to identify potential producers for the universal nut sheller. Until recently the device was produced locally by Zasaka, but due to production issues Zasaka is no longer producing agricultural technologies. Brandis successfully trained three members of Chipata Farmers Cooperative (CFC) on how to produce the nut sheller as an income generating activity. Mr. Brandis noted that when the men had finished making the nut sheller, "they must have stood around for an hour and marveled at what they had accomplished!" The men were eager to begin producing the nut shellers and selling them to their fellow farmers.

Assignment 7: Value Addition with EHC

The value addition assignment with EHC was conducted by Steve Laible, who completed a similar value addition assignment under NCBA CLUSA's previous F2F project in Zambia in partnership with Weidemann Associates. After a 30 year career in public accounting and advisory services, Laible now volunteers with Compatible Technology International (CTI) in St. Paul, Minnesota to support their Education and Technology (EAT) Center initiative in Bangladesh, India and Vietnam. With CTI, Laible helped establish a village based food production enterprise in Bangladesh providing supplemental family income to a women's co-op that now makes and sells peanut butter on a self-sustaining basis.

Steve Laible meets with EHC staff for orientation prior to starting his trainings.

During the beginning of his assignment Mr. Laible conducted an assessment to determine the market viability for roasting peanuts and peanut butter production and farmers' capacity for these value added activities. Due to procurement challenges with roasting and peanut butter processing equipment and an already competitive market for commercial peanut butter, it was decided that these value addition activities just weren't feasible income-generating activities. Mr. Laible noted an opportunity for the

processing and marketing of a snack nut for sale in the local area, so he focused his trainings on developing business plans and marketing strategies for selling peanut snack products.

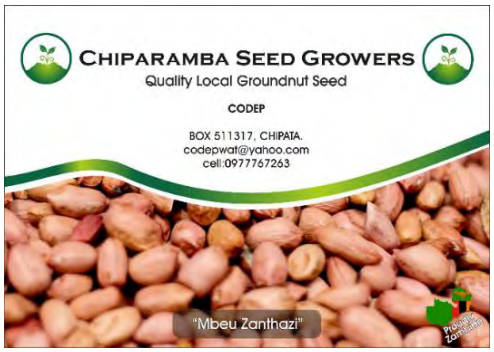
Assignment 8: Improved Peanut Seed Production with CDFA & CODEP

Charlene Nash, senior horticulturist at the Tennessee Aquarium, completed the improved seed production assignment with CDFA and CODEP. She volunteered with NCBA CLUSA's Senegal F2F project in 2015 and had such a positive experience that she applied for this assignment in Zambia. Mr. Hansingo shared that this assignment proved to be one of the best due to the dynamic nature of Nash's trainings, the practicality of the information she provided, as well as the techniques and technologies she demonstrated.

Charlene Nash demonstrates how to use the solar tea brewer to improve soil quality.

Nash took a holistic approach to seed production and covered several topics around seed quality, including soil fertility, making compost using locally available waste materials, growing cover crops, and building permanent field beds for seed multiplication. She stressed the importance of improved soil fertility and water holding as a means to improve seed production and quality because buying new seed and growing under the same conditions will not yield better results. Nash explained that the best way to achieve crop improvement is through changing farming methods, and by increasing fertility farmers will have quality seed which stores better, resists pests better, and has heavier test weights.

During the improved soil fertility portion of the training Nash introduced compost tea and demonstrated how a solar air and water pump can be used to brew the tea which is poured over the soil and the compost. Nash left the device with the farmers and gave instructions so they could each brew enough tea for their field and then pass it along to other farmers.



Nash also worked with a group of farmers on marketing strategies for selling their peanut seeds to other local farmers. She helped them design a logo for their seeds and even offered to pay for the first 1,000 labels. Nash is coordinating with Mr. Hansingo and a local Zambian labeling company to procure the labels for the farmers.

Assignment 9: Cooperative Enterprise Development & Marketing with CDFA

The final assignment was a cooperative enterprise development and marketing assignment completed by Mollie Moisan, Director of Cooperative Development at Pachamama Coffee Cooperative. Pachamama is an NCBA CLUSA member, and over the past few years Ms. Moisan helped the coffee co-op experience tremendous growth. In 2015, Pachamama reached USD $1 million in sales for its fair trade, organic coffee.

Mollie Moisan makes sure all training participants understand the 7 internationally recognized cooperative principles.

Pachamama is the only 100 percent farmer-owned and governed coffee cooperative in the U.S. This cooperative is owned by five smaller cooperatives in Peru, Nicaragua, Guatemala, Mexico, and Ethiopia that comprise more than 100,000 family farmers. One hundred percent of profits go back to these farmer-owners.

CFC treasurer signs paperwork to open up their own bank account.

Ms. Moisan enjoyed her volunteer experience last year with NCBA CLUSA's Senegal F2F project so much that she wanted to volunteer in Zambia as well. She provided cooperative enterprise development and marketing training to CDFA and several of its members, including CFC, Feni Multipurpose Cooperative Society, and Mwende Cooperative. Encouraged by the fact that a mix of membership and board members showed up for the workshops, Moisan focused her trainings on "co-op 101" basics like the cooperative principles and what differentiates the cooperative business model from other businesses; cooperative governance and board roles and responsibilities; building membership engagement; mapping different types of cooperatives locally and globally; and brainstorming how to support the social and economic goals of the cooperative. Moisan included examples of her work with Pachamama and this excited farmers to learn how cooperatives in other countries are improving their members' lives.

Perhaps the biggest accomplishment of the assignment is that Ms. Moisan helped CFC to finally start its own bank account. CDFA had been overseeing CFC's finances since it was established in 2012. Bob Shumaker, who completed the soil fertility assignment with CDFA in October 2015, urged CFC to start its own bank account to become a more autonomous cooperative. Moisan's cooperative principles training resonated deeply with CFC leadership, and they decided to do just that. Everyone agreed to extend the day's training session so that Moisan would have time the following day to focus on gathering the necessary documents and signatures to open the bank account. In his follow up interview with CFC, Mr. Hansingo noted that the co-op greatly appreciated Moisan's vision setting exercise and is pursuing Moisan's recommendations. For example, CFC is currently researching grant opportunities to scale up production of FBP's universal nut sheller and for aflatoxin safe peanut marketing.

Feni Cooperative board and members take a celebratory photo with Mollie Moisan after she becomes their 211th member!

Another highlight is that Moisan became a member of Feni Multipurpose Cooperative Society. Impressed with Feni's professionalism and dedication to the cooperative business model, Moisan asked about becoming a member of the co-op. Offering the last 50 kwacha she had on her, all of the members were thrilled to have her join their co-op. Feni recorded her American name and new Zambian name (Chisomo Banda) in their books, and noted the amount paid. Moisan intends to pay the other 450 kwacha to become a fully vested member! In addition to the eye-opening trainings that Moisan facilitated, the act of her becoming a Feni member really drove home for the other members the idea that they are part of the global cooperative movement.

Below is a chart of the volunteer assignments completed over the course of the project:

	Name	Volunteer	Country F2F Project	Assignment Start Date	Assignment End Date	Volunteer Days Completed	Host(s)
1	Aflatoxin Management	Jock Brandis	Zambia	9/3/15	9/24/15	22	CODEP
2	Aflatoxin Management	Randy Shackelford	Zambia	9/3/15	9/24/15	22	CDFA
3	Soil Fertility	Bob Shumaker	Zambia	10/15/15	10/31/15	17	CDFA
4	Soil Fertility	Ryan Hottle	Zambia	1/1/16	1/15/16	15	EHC
5	Aflatoxin Management Phase I&II	Randy Shackelford	Zambia	1/14/16	2/10/16	28	EHC, COMACO
6	Aflatoxin Management Phase II	Jock Brandis	Zambia	1/26/16	2/11/16	17	CODEP, COMACO
7	Value Addition for Peanuts	Steve Laible	Zambia	2/9/16	2/23/16	15	EHC
8	Improved Peanut Seed Production	Charlene Nash	Zambia	2/21/16	3/6/16	15	CDFA, CODEP
9	Cooperative Enterprise Development & Marketing	Mollie Moisan	Zambia	3/3/16	3/18/16	16	CDFA
		TOTAL				**207**	

Public Outreach

NCBA CLUSA worked diligently to ensure that Zambia F2F activities were covered regularly in the Cooperative Business Journal (CBJ), the organization's weekly online publication, as well as on social media. Over the course of the project, six articles were published in the CBJ, and thirteen Facebook posts were written. Full Belly Project mentioned the project in its October 2015 newsletter as well.

The Zambia F2F project was also featured in NCBA CLUSA's Learning4Impact lunch presentation series at the Washington, DC office. Volunteers Jock Brandis and Randy Shackelford came to the office on December 4, 2015 and gave a presentation about their F2F experience in Zambia. This learning event was held a day after Brandis and Shackelford received VEGA's Volunteer of the Year award at VEGA's annual meeting and F2F 30th anniversary celebration.

Although the Zambia F2F project officially ended on March 22, 2016, NCBA CLUSA still implements a Senegal F2F project in partnership with ACDI/VOCA and is always looking for opportunities to engage its U.S. cooperative membership in its international work. This June, at the NCBA CLUSA hosted Consumer Cooperative Management Association (CCMA) conference in Amherst, Massachusetts, NCBA CLUSA international program staff will hold a panel session on the F2F program, which will include the perspectives of F2F program staff and volunteer Mollie Moisan, who has volunteered with NCBA CLUSA's Senegal and Zambia projects. The session, entitled "A More Inclusive Principle Six: Cooperation among Cooperatives across Borders," will focus on the theme of diversity and inclusion and demonstrate how cooperatives in the U.S. engage in the global cooperative movement by supporting cooperatives in developing countries through the F2F program.

Project Results and Impacts

NCBA CLUSA's Zambia F2F project had positive impacts on all four host organizations, their members and staff in a very short period of time. The biggest impact is in aflatoxin awareness and the significant discovery that peanuts in farmers' fields, in fact, have very low aflatoxin levels. Brandis and Shackelford's mReader "testing tailgates" indicated that the main aflatoxin contamination points are further along the value chain in storage and processing facilities, contrary to the common perception which assumes that toxic aflatoxin levels stem from farmer-level post-harvest handling methods. This is a major milestone in providing a path to combating the aflatoxin problem in Zambia's Eastern Province.

By conducting follow up assignments aimed at addressing the aflatoxin problem in processing and storage facilities, Brandis and Shackelford were able to continue their awareness campaign combatting contamination assumptions. Although the prototype ozonation equipment Brandis developed did not achieve its anticipated results of reversing contamination in bagged peanuts, COMACO understands the potential of ozone treatment. As one COMACO staff member stated during the tests, "this only shows more the importance of the ozone treatment."

The project was also highly successful in technology transfer. Thanks to Brandis and Shackelford, the mReader was left with key staff and lab technicians at Msekera Research Station who were trained on how to test aflatoxin levels using the device. Demand from farmers to have their peanuts tested was so high that Msekera ran out of testing strips and reached out to Mobile Assay to purchase more. This demonstrates not only the sustainability of the technology but also has provided a solution at the local level which will increase access to farmers in the area.

In addition to the mReader, NCBA CLUSA volunteers also introduced several other agricultural technologies to farmers, including FBP's universal nut sheller, a solar water pump, and a solar tea brewer. Four hundred and sixty-two smallholder farmers, nearly 72% of whom are women, learned how to use the nut sheller. Three CFC members learned how to construct the nut sheller, and they are eager to start producing and selling them. Nash taught 60 farmers how to use the solar tea brewer and left the device and instructions with farmers so that they could continue to improve their soil quality, which is critical for production of good seed. Nash, Shumaker and Hottle all trained farmers on improved soil fertility practices. Of the 12,000 hectares managed by CDFA, CODEP, and EHC smallholder farmers, 1,400 hectares are under Improved Production Technology due to Zambia F2F volunteer technical assistance, an 11.6% increase. This far exceeds the original target of 192 hectares.

The next harvest is not until August, so the project cannot report on the impact of these technologies on farmer incomes and sales at this time. However, based on the market price for packaged seed of ZMW 18 per kg, farmers who use the labels that Nash helped them develop are likely to triple their sales. Many currently selling at ZMW 6 per kg as subcontractors will be able to sell directly to other farmers for ZMW 18 per kg.

Although NCBA CLUSA's Zambia F2F project ended, the volunteers left behind recommendations that host organizations are pursuing and even began to implement during the project, such as CFC opening its first bank account and researching funding opportunities. Farmers' continued engagement with Msekera Research Station to get their peanuts tested for aflatoxin levels demonstrates their commitment to producing quality peanuts, and COMACO's willingness to host Brandis and Shackelford for follow up assignments on aflatoxin reduction testing also shows their commitment to tackling the problem. Farmers that Nash trained on growing cover crops to improve soil fertility and seed production are moving forward with these seed multiplication strategies.

In addition to project impacts on host organizations, their members and staff, volunteers also met with several other local stakeholders involved in the peanut value chain, including local government officials and extension agents, input suppliers and other private sector companies, and college students studying agriculture. All of these formal and informal meetings and auxiliary trainings increased awareness around the aflatoxin issue and highlighted how F2F volunteer technical assistance and innovation can support smallholder farmers in tackling their challenges, improving production quality, and increasing production levels.

Annex I

Scopes of Work
Volunteer Trip Reports
PERSUAP Report

NCBA CLUSA
The National Cooperative Business Association • CLUSA International

June 3, 2015

Eric Wallace
Farmer-to-Farmer Special Program Support Project Director
Volunteers for Economic Growth Alliance
1726 M St NW, Suite 800
Washington DC 20036

Dear Mr. Wallace:

Subject: Actions in Response to GAO Report on the Farmer-to-Farmer Program – "USAID Farmer-to-Farmer Program Volunteers Provide Technical Assistance, but Actions Needed to Improve Screening and Monitoring"

This letter confirms that the Volunteers for Economic Growth Alliance Farmer-to-Farmer Special Program Support Project (F2F SPSP) for Zambia:

- Does not engage in transactions with, or provide resources or support to, individuals and organizations associated with terrorism, including those individuals or entities that appear on the Specially Designated Nationals and Blocked Persons List maintained by the U.S. Treasury or the United Nations Security designation list. All potential volunteers are screened against these and other watch lists and this provision is included in all sub-agreements, including the sub-award and contract issued under the F2F Zambia award.

- Carries out at least two reference checks on all potential first time F2F volunteers in addition to other required screening and carries out reference checks on all repeat F2F volunteers with regard to prior F2F assignments, and additional external references if no F2F assignments have been completed within the past 24 months.

- Immediately informs the USAID AOR of any negative F2F volunteer performance or behavior and provides information on such performance or behavior experiences to other F2F implementing organizations when contacted for reference checks on potential volunteers.

Sincerely,

Jane Podolsky
Senior Program Manager
NCBA CLUSA

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NCBA CLUSA
The National Cooperative Business Association • CLUSA International

May 11, 2016

Laura Alexander
Senior Program Manager
Volunteers for Economic Growth Alliance
734 15th Street, NW, 11th Floor
Washington, DC 20005

Dear Ms. Alexander:

Subject: Farmer-to-Farmer Special Program Support Project M&E Certification

The National Cooperative Business Association CLUSA International (NCBA CLUSA) confirms that we have: a) used established indicators and definitions; b) participated in regular (annual) workshops reviewing indicators and M&E systems; and c) trained field staff on indicators and data collection systems. The above mentioned training sessions include extensive instruction in the collection and reporting of indicators.

Sincerely,

Jane Podolsky
Senior Program Manager
NCBA CLUSA

National Cooperative Business Association CLUSA International
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NCBA CLUSA
Farmer-to-Farmer Zambia PERSUAP Reporting

PERSUAP Implementation Experience – F2F Assignments:

Over the period covered by this report, NCBA CLUSA did not implement any assignments requiring the F2F PERSUAP.

Assignments with Pesticides: N/A

Assignments with SOWs in IPM and pesticide safer use: N/A

Needs for a PERSUAP amendment: N/A

F2F PERSUAP Assignment Data Table[1]:

Assignment (Trip) Number	Volunteer Name	Country	Country F2F Project	PERSUAP Assignment Type	Work Directly with USAID Mission or Mission-funded Project (Type 4) – Check for Yes	Training Syllabus Sent to F2F AOR/ Mission Environmental Officer (Type 1) – Check for Yes	Training Attended by USAID (Type 1) – Check for Yes
Counts:							

Certifications of assignment and office compliance with PERSUAP guidelines:

A. PERSUAP Compliance – F2F Assignments

[Implementing partner] certifies that all volunteers have received the F2F Environmental Brochure. For all PERSUAP Type 1, 2 and relevant Type 4 SOWs, [implementing partner] further certifies the following have been provided to and developed by the relevant volunteers:

	Type 1 SOWs[2]	Type 2 SOWs[2]

Provided to Volunteer	• F2F PERSUAP with Attachments A - H • SUAP briefing with F2F field staff • Implementing Partner F2F PERSUAP Questionnaire • List of any IPM practices and any tools, forms, protocols, plans from previous volunteers • Host country list of approved pesticides • Approved pesticide list from any other applicable PERSUAPs	• F2F PERSUAP with Attachments B, C, F, H • SUAP briefing with F2F field staff • Implementing Partner F2F PERSUAP Questionnaire • List of IPM practices from previous volunteers
Developed/ Provided by Volunteer	• Syllabus for training event • Material Safety Data Sheets (filed in field office) • Any pesticides that the F2F program should be able to recommend/use which are included on an approved list • Limitations/successes of F2F PERSUAP • Recommendations for additional support on pesticide management practices • Recommendations/feedback on local IPM practices • Highly Toxic Pesticides (Attachment E)/poor pesticide practices witnessed • Tools, forms, protocols, plans for implementation of pesticide-related recommendations	• Limitations/successes of F2F PERSUAP • Recommendations for additional support on pesticide management practices • Recommendations/feedback on local IPM practices

B. PERSUAP Compliance – F2F Offices

[Implementing partner] certifies that all F2F staff have reviewed the F2F Environmental Brochure for staff the fiscal year and that the following have been updated and kept on file:

	Home Office	Field Office
Documents Updated and on File	• F2F Environmental Brochure for staff • PERSUAP with Attachments A-I • Any USAID Mission- or sector-wide PERSUAP(s) for relevant country/sector	• F2F Environmental Brochure for staff • PERSUAP with Attachments A-I • USAID Mission- or sector-wide PERSUAP(s) for relevant country/sector • Host country list of approved pesticides[3] • Implementing partner F2F PERSUAP Questionnaire, with any volunteer additions • Material Safety Data Sheets for relevant pesticides[4] • Tools, forms, protocols, plans developed by volunteers

[1]Required only for PERSUAP Type 1 & 2 SOWs, and for Type 4 SOWs that follow Type 1 & 2 requirements
[2]If governed by F2F PERSUAP, Type 4 SOWs should follow requirements for Type 1, 2, or 3 SOWs, as most relevant
[3]Or, letter from host country government stating that there is no list of government-approved pesticides and noting any specific measures that should be taken when F2F volunteers recommend pesticides
[4]It is recommended that these documents be translated into local languages for distribution to relevant hosts and partners. Please note if they have been translated (in whole or in part), and if not, why.

Farmer-to-Farmer Program
Support for Improving Soil Fertility
Scope of Work

Host/Partner: Chipata District Farmers Association (CDFA)

Beneficiary Organization: Chipata District Farmers Association (CDFA)	**Location of Project:** Chipata Eastern Province, Zambia
Primary Contact Person: Virgil Malambo Coordinator	**Date Project Started:** April 2015
Telephone/Fax: +260 97 7 767263	**Type of Assignment:** Improving soil fertility for peanut production
Email: chipatafarmers@yahoo.com	**Dates of Assignment:** September 2015
Brief background on beneficiary organization: Chipata District Farmers Association is a Non-Governmental Farmers Association with 2,000 registered farmers, most of whom are small-scale farmers. The Association's main focus in the Eastern Province is offering training to farmers in agriculture related subjects such as poultry, piggery, crop husbandry, and agribusiness. It also focuses on poverty reduction and land access for disadvantaged members of the community. The association offers seasonal agricultural inputs on credit in partnership with Zambia National Farmers Union (ZNFU) and Zambia National Commercial Bank (ZANACO). CDFA works with 1,500 groundnut producers, of whom 85% are women. The vast majority of groundnut farmers in Eastern Province produce as little as 300 kg per Ha of peanuts as opposed to the potential of over 2,000 kg. Lack of access to technical knowledge on how to manage soil PH and fertility are production weaknesses that contribute to lower yields. This assignment will equip farmers with soil management techniques that will allow them to increase their yields.	**Objectives of the Assignment:** • To equip groundnut farmers with techniques that will improve soil PH levels, including the correct use of fertilizer, gypsum, and lime, which will improve yields in seed multiplication and grain production.
Tasks to be carried out: • Teach importance of soil testing • Training on plant nutrition for peanuts • Practical training in application and use of recommended blended fertilizer, lime and gypsum • Soil management training • Land preparation training	
Expected number of persons to be trained (m/f): 10/20	**Required expertise of Volunteer:** Plant agronomist

NCBA CLUSA Farmer-to-Farmer Program
Soil Fertility in Groundnut Production
Robert Shumaker

Volunteer Trip Report

Assignment Information

1. **Robert Shumaker**
2. **CDFA,**
3. **10/15-31/2015**

Recommendations to the Host Organization

Following up on soil testing in the different regions would be my first recommendation. Maybe do a select farm in each and then showcase the results in order to get more participation. Partner with local fertilizer dealers and see if they won't make testing a service. The second would be to continue to provide support to the Chipata Farmer's Cooperative Society Ltd. Help them to secure a building location so that they can begin to build on their own. Also separate accounts so that they are in charge of their own funds. Give them the responsibility they require. Third would be to pursue moving towards a renewable example. Actions such as placing solar panels upon the CDFA headquarters building so that the farmers can see how they can control their own energy independence since energy is expensive and unreliable at present. Promote a movement towards fencing of property for maximization of compost componets as well as revision in land ownership so that individual farmers can access financing from local lenders. To do this I would partner up with the local lenders and have them address groups of farmers in an effort to look at all the aspects of financing. Host organization currently supplies access to a tractor and that is great until other issues are addressed. There is a need to move towards mechanization in order for the small holder farmer to compete in the market place and that requires financing. Host could help begin the process to secure sources of ground nut seed or help list the locations of seed companies that are carring clean groundnut seed such as Pannier and NWK.

Achievement of Objectives

1. List assignment objectives from the Scope of Work

   The main task centered around soil testing for groundnut production and increase production of groundnuts.. Besides testing we included timing and rates of fertilizer and lime application. The emphasis was on increase production of groundnuts to meet the growing demand. We also focused on soil and soil types, what to look for and what is important. Cultivation practices were included in this discussion. .

2. Assess your success in fulfilling the objectives.
   We were very successful in conveying the message regarding soil fertility and the role it plays in a bountiful production of the groundnuts. Most if not all of the groups asked for access to the test kit or how they could purchase one for themselves. Due to the high prices of fertilizer they were very motivated for improvement.

3. Were there changes in the objectives during your assignment? If so, explain what the changes were and why they occurred. Did you work on objectives or in areas other than those specified in the Scope of Work? If so, explain what they were and why your work extended to those areas.
   Yes from the onset we realized that to increase production of groundnuts in the harsh environment Africa poses we would need to address other areas. We chose a targeted approach meaning that besides focusing on soil management additional consideration would be given to other important areas such as; water management, fertilizer and fertilizer blends, composting, diseases and funguses (Aflotoxins, molds), cultivation practices, seed and seed sources, and managerial approaches. The reasons for a targeted approach included: limited resources (educational or otherwise), lack of available power, methods of production (mostly limited to manuel labor), and environment (growing conditions).

Key Results and Anticipated Impacts

1. What specific actions do you realistically hope to see the hosts take in implementing your recommendations?
   My hopes are that the host (CDFA) develop or build some kind of soil testing unit where the different sites could request soil tests done and for a small fee get that service. Or help the available seed/fertilizer companies come on board and provide that service as a component of purchase to the different blocks.

2. How do you anticipate the economic well being (or income) of the host will improve as a result of implementing your recommendations?
   The individual farmers will benefit very well by being able to lower their input costs in a time when those costs are steadily rising. By working with water management as well the goal was to free up time that can be used on other aspects of the production process.

During your assignment, you collected the names and contact information of farmers or business people you trained. Please provide a list of them here, or as an attachment. This is essential in order for NCBA CLUSA to be able to follow-up on your assignment.

List of Contacts

List of farmers and others trained on _____

– See Appendix 1.

Host Profile Data

1. Did you obtain any data that supplements or corrects the data in the existing Host Profile? If so, please list it here.
   It is common knowledge that the soils of Zambia as well as Africa tend to be more acidic. Being Acidic means that addition steps must be taken to promote production of a crop such as groundnuts. We tested the soil at every location using the basic test and found that to be true. Most soils tented to be in the 5-5.5 area. Thereby requiring the need for additional lime. We also found most soils to be good or better in terms of quality.

2. Observations about the host organization (optional). Share your impressions of the host organization. NCBA CLUSA appreciates your assessment of the likelihood of the host organization's success in the future, their weaknesses and strengths, etc.
   If you are implying CDFA then I will give you my knowledge. CDFA is not a cooperative but a receivership. They work off of money that is given to them by outside (foreign entities). Their intentions are good and by no means are they not working or sharing with the farmers in some form. They are not the cooperative that we started in 2013. That cooperative has been pretty slow in developing mainly because there was not follow up support to move them down the road. The treasury was shared with CDFA and I think this week it will be separated, giving CFCS autonomy and independence which I believe will cause them to take a more active role in their development. CDFA was helping them by holding their funds-I just think it allowed CFCS to be lazy. I vision CDFA morphing into a managerial role for CFCS in the future but for now the two entities are separate. CDFA provides a vital service and promotes agriculture in the Chipata or Eastern region of Zambia. They are not lined with the Zambia National Farmers Union but tend to align Their biggest asset is that they have a location in which the small holder farmer can come to and vent their frustrations. Do they have power or authority to make change I am not so sure but you do see from time to time material or an article from them. Does that mean the cooperative will become strong or able to affect change, only time will tell. But I support both and pray the cooperative takes hold and becomes successful. In part since I helped develop it and mostly because I believe that the answer to the small holder

farmer development and strength lies with themselves and not in all the money we foreigners throw at them. .

Recommendations to NCBA CLUSA (optional)

1. NCBA CLUSA is very interested in your assessment of what should be done next to assist the host organization. Should NCBA CLUSA continue to send volunteers to this host organization? In what areas do you feel the hosts could use additional volunteer assistance? These recommendations will be confidential, and not shared with the host organization.

   I don't know what NCBA provides CDFA but I do know that Hedrick works for CDFA and he did an outstanding job of getting the meetings set up and insuring that the farmers were assembled for the trainings. He is not a translator as of yet. Alex is a pro in that area and very vested in the outcomes, showing compassion for all and particularly the small holder farmer. He is also well know around the community and has access to what resources a person needs. He works for you. If you provide financial support in some for that is great, I may have understood CDFA's mission at one time but have forgotten it now. It is that "how far do you go" thing that comes to my mind. Two plus years ago, with the help of organization and setting we were able to start a cooperative outside of CDFA but also dual members. The building site was selected and a assurance by Mr. Malumbo that it was available followed so I purchased a sledge hammer and we got about 10 "smacks" in before we were stopped by some entity. Then Virgil assured us that it was available again but today it stands with no roof but cleaned up some because of the location. Again Virgil said he controls it but no work has been done. I can tell you up front that ownership/title and such of land is difficult at best. After I flew back to America the cooperative was given some buildings out towards the Central block but that property is being contested because another group also said the government gave it them as well. All I know is that for the cooperative we started to gain status and succeed it needs a headquarters and their own bank account. Please meet with them when you get there and get their input. CDFA has a tractor that was given to them and they rent it out to small holder farmers. CDFA also has a large truck they were given a couple of years ago but had rented it out during harvest time so that the cooperative couldn't move the shelling unit I had purchased for them. The unit was to be an asset in which to make money. The contract between me and them is that they are to pay me back the purchase price and then I will purchase them a hammer mill in which to make meale meal out of their members maize produce. After that they are to pay me back for that and then we are done. The problem is in moving the mill. I had thought CDFA would lease them the truck. At the inception of the cooperative I had also secured an agreement with "The Real Meat Company" for 100 pigs to be given in groups of 3-5 and 1 boar if the participants built facilities per the agreement. That got turned sideways and the board of the cooperative thought it was meant to be one large operation. So that didn't materialize as well. It will all work out in time, it just takes

time. I don't know if that agreement still stands because since then an outbreak of swine flu has destroyed many pigs. It was not CDFA's responsibility to make the coop grow. It has 60 members. SO reading between the lines and since I believe the way for the small holder farmer to become more than a subsistence farmer is for them to mobilize into a cooperative. I recommend that you begin to focus support on the cooperative group at the same time you are working on other agendas. Those would be the pictures I would post. You will need to continue to work along side of CDFA just because they have a home and their intentions are good. I personally would also find the person that Alex knows that is from Switzerland or some country that it interested in only Cooperatives and see what he has learned. At the village level we found that they are very much interested in a cooperative based upon the 7 principals. CFCS hasn't done a great job yet of letting other's know of its existence. They need water and electricity at the village level. The country's electrical supply is a mess so that is where solar come in. It would be great to develop a show case place where there was a battery bank along with solar panels that lit a small village such as George Mphanza's in the Eastern Block. I left the solar panel and water pump with him. It will be interesting to see how he develops that into his production scheme. Of course George is also my father in law and a dedicate farmer. He was instrumental in Agro Forestry some 20 years ago. One way or another we will try and set up a solar system for showcase and development whether on my next trip or you get it done before then! It would be neat to see someone integrate into compost development. Hope this helps.

2. NCBA CLUSA is also very interested in your recommendations on how the logistics of your assignment can be improved for future volunteers. Please include any detailed comments and/or recommendations concerning pre-departure briefing, in-country briefing, hosts, assignment logistics, or Program Coordinator here.
   Seemed like a tight schedule returning home with very little time between planes. Hotel or motel in Zambia where I have stayed when getting into town has for the past two times given me a room where it had not been cleaned, bed a mess, towel in the bathroom used and on the floor. It was good that Alex also saw this both times and it was funny that we both remembered. We then stayed at the town Crossroads which was better. So maybe just do Crossroads in both cities. Be clear about the "clean crip $50.00 bill" when entering. Lucky for me I had two and the first one I ended up tearing about a tiny bit but they wouldn't take it. Virginia and Alex had helped me very much. Kudo's to both of them. Drink lots of fluids and get water every day when in the field. Make sure you get the exact instructions from everyone; Virginia, Alex and Hedrick (CDFA) that way we are all on the same page. Hope that helps. Great and productive trip. bob

Appendix 1. **List of farmers and others trained**

Name	male /female	Organization/Village

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Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: Soils
Volunteer: Robert Shuk

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	JERE DANIEL	M	0962417286	22/10/15
2	TEMBO ACKNELE	M	0962288931	22/10/15
3	MITI ASONI	M	0979543	22/10/15
4	MTONGA CHARLES	M	0961567320	22/10/15
5	MARGARET MSONI	F	0966419113	22/10/15
6	EMGENDAH MBUTO	F	0965318005	22/10/15
7	LOYCE KABAMA	F	0974600604	22/10/15
8	JANET TEMBO	F	0977312367	22/10/15
9	ESTHER MWALE	F		22/10/15
10	Joice Banda	F	0968659183	22/10/15
11	BANDA HASSAN	M	0964095219	22/10/15
12	PHIRI MISOZI	F	0979910572	22/10/15
13	MYULA JOYCE	F		22/10/15
14	Joseph Zulu	M	0965452510	22/10/15
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Farmer to Farmer Sign In Sheet

Host Organization: COPA
Assignment: SOILS
Volunteer: Robert Shl

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	KOSIPALE SHAWA	M	0978894344	28/10/2015
2	WYTED DAKA	M	0977387235	
3	BENJAMIN CONGWE	M	0962655616	
4	PEPULANI BANDA	M		
5	FREDRICK SAKALA	M		
6	REASON SHAWA	M	0966028879	
7	STEVEN BANDA	M	0976310590	
8	EFRIDA BANDA	F		
9	TILAWILENJI SHAWA	F		
10	ASINED SHAWA	F		
11	CATHERIN PHIRI	F	0977283115	
12	EVELINA SHAWA	F		
13	TIDEZENJI PHIRI	F		
14	ROSEMARY MBAWO	F		
15	YANALES ZULU	F		
16	SELIA ZULU	F		
17	Efelo Tonga	F		
18	IDEEN SHAWA	F	0966667199	
19	LYNES SHAWA	F		
20	FELIDA MBEWE	F		
21	SESITINA SHAWA	F		
22	MASIYE MWANZA	M		
23	TIPILILE SHAWA	F		

HENRY	BANDA	0974053115	26/10/15	Banda
NJOVU	EDWIN	0974915157	26/10/15	[illegible]
MLSHECK	NEMBO	0962415807	26/10/15	[illegible]
PHIRI	JOSEPH	0975149556	26/10/15	[illegible]
PHIRI	MAWDA	0978114326	26/10/15	[illegible]
MBEWE	AMOS KASHEKA	0965728518		

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Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: Soil Fert
Volunteer: Robert Shuh

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	Josta Zulu	M	0961848163	21-10 2015
2	Tona Muti	M	0966677844	21-10/2015
3	Daliso Chipeta	M	0978636631	21-10-2015
4	Midason Muti	M	0976384038	21-10-2015
5	Elija Tonga	M	0962223147	21-10-2015
6	Jason Ngoma	M	0967880913	21-10-2015
7	David Jere	M	0966546577	21-10-2015
8	John Zulu	M	0976080336	21-10-2015
9	Goodson Njobvu	M	0962944270	21-10-2015
10	Mabvuto Ngoma	M	0979403770	21-10-2015
11	Machiko Humphrey	M	0967358919	21-10-2015
12	Mercy C. Kangwa	F	0955091162	21-10-2015
13	Daka Dickson	M	0963895991	21-10-2015
14	Banda Patricia	F	0965138656	21-10-2015
15	Alice Muti	F	0965482126	21.10-2015
16	James Phiri	~~F~~ M	0963840062	21.10-2015
17	Bwanali Zulu	~~F~~ M	0972544964	21.10-2015
18	L. Zulu	M	0976360229	21.10-2015
19	Sakala Abdon	M	0955787076	21-10-2015
20	Phiri Boniface	M	0974929925	21-10-2015

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Farmer to Farmer Sign In Sheet

Host Organization: CDPA
Assignment: SOM
Volunteer: Robert Shuke

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	MBAZIMA STEPHEN	MALE	0961344238	22 OCTOBER 2015
2	BANDA PETER	MALE	0979178024	22 OCTOBER 2015
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Farmer to Farmer Sign In Sheet

Host Organization: CDPH
Assignment: Sorts
Volunteer: Robert Shl

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	PROTAZIO LUKHELO	MALE	N.R.C 306792/52/1	23/10/2015
2	SPRIANO Zulu	MALE	N.R.C 155448/52	23.10/2015
3	GODFREY TEMBO	M	0971821070	23.10/2015
4	SEVERIANO INGWE	M	0978812657	23/10/2015
5	EMIFASI PHIRI	M	0978940063	23/10/2015
6	BENNY KUMBUYO	Male	24ENIC	23/10/2015
7	DOMINIC MWANZA	M	0968011087	23/10/2015
8	SARAH MTONGA	F	0961214785	23/10/2015
9	Evaline Nkewe	F	—	23/10/2015
10	Christine Tembo	F	—	23/10/2015
11	Bertha Mthani	F	0969722916	23/10/2015
12	Ainer Zulu	F	—	23/10/2015
13	Martha Zulu	F	0963561936	23-10-2015
14	TOMAIDA ZIWA	F	0977260196	23-10-2015
15	BETTY MWANZA	F	0979919568	23-10-2015
16	SINAI MSHANGA	F	0968651027	23-10-2015
17	GREYFORD SOKO	M	0978933059	23-10-2015
18	JOHN PHIRI	M	0962286394	23-10-2015
19	Coscom Zulu	M	0971687008	23-10-2015
20	LUDOVIKO MUMBA	M	396666/52/1	23-10-2015

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Farmer to Farmer Sign In Sheet

Host Organization: COFA
Assignment: Soils
Volunteer: Robert S

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	Felisteas Tembo	F	0973303428	28/10/2015
2	LUFI NYOKA	F		
3	BESTER LUNGU	F		
4	MOSES NGOMA	m		
5	MABVUTO LUNGU	m		
6	JOWHA LUNGU	m		
7	VASTINA ZUCHE	F	0961255593	
8	VINCENT SHAWA	m	0966564699	
9	DEVISON ZULU	m	0975177909	
10	SHAWA ALBERT	M		
11	YONA TEMBO	M		
12	ELIAS JERE	M		
13	GIFT DAKA	M		
14	JOSEPH TEMBO	M		
15	Michael Shawa	M		
16	France Shawa	M		
17	L ZULU	M	0978476714	
18	S SHAWA	M	0978476714	
19	WALET DAKA	M	0977252852	
20	Solomon Tembo	m	0962297867	
21	AVENTO NYOKA	m		
	ANGELA NGOMA	F		

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Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: Soils
Volunteer: Robert Shu

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	MYIRENDA EFFELED	F	0976638924	20/10/15
2	SAILALA CATHERINE	F	0973235181	20/10/2015
3	BANDA OVERTONS	M	0963258684	20/10/2015
4	TONGA CHIZEMBWE	M	0979906228	20/10/2015
5	Banda Emmanuel	M	0972663690	20/10/2015
6	Manda Simoni	M	0977112318	20/10/2015
7	NGUNI KENNEDY	M	0977242949	20/10/2015
8	TONGA SAYENELA	M		20/10/2015
9	Abigail Mfuna	F	0977 [illegible]	20/10/2015
10	MOSES CHANDA	M	0965450525	20/10/2015
11	PHIRI MASAUSO	M	0978634735	20/10/2015
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Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: Soils
Volunteer: Robert Shuler

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	KAMANGA BENNY	MALE	0971823971	20/10/2015
2	CHUNI ALLAN	MALE	0969869215	20/10/2015
3	MKIANZA LAMECK	MALE	0965670069	20/10/2015
4	BANDA NOAH	MALE	0965131485	20/10/2015
5	BANDA PETER	MALE	0962380263	20/10/2015
6	PHIRI LUFEYO	MALE		20/10/2015
7	MBEWE ARTHUR	MALE	0964154572	20/10/2015
8	MBEWE TIMOTHY	MALE	—	20/10/2015
9	NYIRENDA MASAUSO	Male		20/10/2015
10	Zulu PATRICK	Male	0978283625	20/10/2015
11	KAMANGA CHRISPINE	MALE	0966712190	20/10/2015
12	KAPENA TONGA	MALE	0962058215	20/10/2015
13	Zulu Wiseman	MALE	0968-977530/0978645494	20/10/2015
14	MOONGA William	MALE	0964 991078	20/10/15
15	NEPHAS MBEWE	MALE	0966 453375	20/10/15
16	SOWOYA AGNESS	FEMALE	~~[illegible]~~	20/10/15.
17	SHIKASAKO M. MUSA	MALE	0977918369	20/10/15
18	PAUL BAN	MALE	0979835148	20/10/15
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Farmer to Farmer Sign In Sheet

Host Organization:
Assignment:
Volunteer:

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	ANDIFANI BANDA	MALE	0961129015	23 / 10 / 2015
2	NDHLOVU PAUL	M	0978535165	" " "
3	TEMBO UELANO EDEN	M	0969190091	" " "
4	Tembo Aaron	M	0965503908	" " "
5	Joaquim Mshangu	M	0966760468	" " "
6	NYIRENDA AUGUSTINE	M	0977115429	23 - 10 - 15
7	GODFREY CHALU	M		" " "
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USAID FROM THE AMERICAN PEOPLE

NCBA CLUSA

Farmer to Farmer Sign In Sheet

Host Organization:
Assignment:
Volunteer:

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	GODFREY NYIRENDA	MALE	0977625487	27/10/15
2	LOZAS J. BANDA	MALE	0964417970	27/10/15
3	CHONGO MWANDWE	M	0976430330	27/10/15
4	MICKY MBEWE	M	------	27/10/15
5	Aaron Dzika	M	0976157875	27/10/15
6	Richard MSONI	M	------	27/10/15
7	JOSEPH SIZOMBO	M	0967883165	27/10/15
8	GEOFREY TEMBO	M	0965004152	27/10/15
9	MARK SAKALA	M	0974-335387	27/10/15
10	KENNEDY MSONJI	M	0975992904	))
11	DAVID LUNGU	M	0962289696	27/10/15
12	JOHN LUNGU	M	0976570288	27/10/15
13	NKHOMA MARISEN	M	0974830254	27-10-15
14	DAKA LUKAS	M	0979377667	27-10-15
15	SAKALA GILBERT	M	—	27-10-15
16	MAUNDA AGNESS	F	—	27-10-15
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DPA
Dasgn Sorha
Ut. Robert Sh

NAME	PHONE	DATE / SIGN
TEMBO WILLIAM TICHENKILANE	0965[illegible]	26/10/15
BANDA LAWRENCE	0972009731	26/10/15
INGWE TIMOTH TICHENKILANE		26/10/15
BANDA NITTALI TICHENKILANE		
BANDA FABIANO MTHULULA CEO	0976460058	26-10-15
MIN BENARD MTHULULA		
MBEWE INNOCENT SHUGEL		
KILEMBE PANJI CEO KILENJE	0963360238	26/10/15
SOKO MASAUSO KAWASELA		
EMMANUEL BANDA NKHUSU MASALA	0978554853	26/10/15.
JEBRON JERE/KADAMSANA	0976992350	26-10-2015
COSMAS MWANZA NKHUSU MASALA	0974885123	
PATRICK SAKALA CHAZAMA	0962285455	26/10/15
FELIX NKHOMA KAZILIGARO		26-10-15
PRICILA ZULU CHAZAMA	0979395890	26-10-15
MARTHA BANDA TELO	0966150443	26-10-15
CECILIA SAKALA KAMWANKHUKU		26-10-15
ANGELO SOKO KAWASE	0969023739	26-10-15
Sabds Constitution KA co-op Chazama	0977105048	26-10-15
MBEWE AMOS KASAKAGANA	0965728578	26-10-2015

USAID FROM THE AMERICAN PEOPLE

NCBA CLUSA

Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: Soils
Volunteer: Robert Shunk

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	BANDA YOTHAM	MALE	0972 663408	22/10/15
2	NKHOMA SIMON	M	0961205101 5.	"
3	MBULO GODFREY	M	0965689223	"
4	JERE SAMSON	M	0963914295	"
5	JERE CHIFILE	M	0966618456	"
6	ZULU YOLAMU	M	0964561950	"
7	JERE LAWSON	M	0968656207	"
8	MBAZIMA MISIOA	M	0965451838	"
9	PHIRI PETRO	M		"
10	MITI DACKSON	M	0968804520	"
11	JERE LASTON	M	0966226037	22/10/15
12	MULLA ABINALA. R	M	0966-400537	"
13	JERE MICHAEL.B.	M	0965-240271	"
14	MUSONDA ISABEL	F	0969365300	"
15	NALUMBWE LILLIAN	F	0965207297	"
16	DAVISON PHIRI	M	0962848550	"
17	ALEX CHIPAPA	M	0977689375	"
18	NKHATA FULATERA	M	0962418522	"
19	KELLY SOKO	M	0974469060.	"
20				

BOARDING PASS:

FLIGHT NO: DL201

BOARDING TIME: 19:15

GATE:

SEAT: 51F

DL 9318390953

NAME: SHUMAKER/ROBERT WI

FROM: JOHANNESBURG/JNB

TO: ATLANTA/ATL

CLASS: Y/Y

DATE: 30OCT

ETKT 20067680397859

SEQ NO: 84

BOARDING PASS:

FLIGHT NO: DL2039

BOARDING TIME: 07:30

GATE:

SEAT: 39C

DL 9318390953

NAME: SHUMAKER/ROBERT WI

FROM: ATLANTA/ATL

TO: SEATTLE/SEA

CLASS: Y/Y

DATE: 31OCT

ETKT 30067680397859

SEQ NO:

CLASS: Y/Y

SEAT: 39C

SHUMAKER/ROBERT WI

DL 2039 31OCT

FROM: ATLANTA/ATL

TO: SEATTLE/SEA

DEPARTURE TIME: 08:10

DL 9318390953

ETKT 30067680397859

SEQ NO:

Farmer-to-Farmer Program
Management of Aflatoxin in Peanuts
Scope of Work

Host/Partner: Community Oriented Development Program (CODEP)

Beneficiary Organization: Community Oriented Development Program (CODEP)	**Location of Project:** Chiparamba Community Chipata Eastern Province, Zambia
Primary Contact Person: Mr. Joseph Mwale Program Director	**Date Project Started:** April 2015
Telephone/Fax: +26 0 97 7 767263	**Type of Assignment:** Post Harvest Handling and Aflatoxin Management
Email: copwat@yahoo.com	**Dates of Assignment:** August 2015
Brief background on beneficiary organization: Community Oriented Development Program (CODEP) is a local NGO serving 12,000 farmers in the Chipata region of the Eastern Province. CODEP works with 300 peanut producers and seed growers, of whom 75% are women. CODEP's mission is to improve food security and nutrition at the household level, especially in rural communities through support in the areas of agricultural production, natural resource management, education, water and sanitation, and health. High aflatoxin levels are often found in Zambian peanuts. Unacceptable levels of aflatoxin have led to the blockage of most Zambian peanuts into lucrative South African and European markets. Most smallholder farmers are unaware of the need to reduce aflatoxin and the technology available on the market to assist in its reduction. The end result is peanuts that do not meet export standards and contribute to poor nutritional and cognitive development among children.	**Objectives of the Assignment:** • To educate smallholder farmers on the negative health and production impacts of high aflatoxin levels in peanuts and the subsequent need to reduce aflatoxin levels • To equip farmers with techniques available on the market to test for and reduce aflatoxin infestation in peanuts • To train farmers in post-harvest handling techniques that will reduce post-harvest loss and aflatoxin levels
Tasks to be carried out: • Outline farmers' expectations of the volunteer for the assignment duration • Identify farmers' practices which cause high aflatoxin levels • Train farmers on the importance of low aflatoxin levels for commercial sale and health • Introduce technologies in processing to reduce aflatoxin levels to meet export standards	
Expected number of persons to be trained (m/f): 10/20	**Required expertise of Volunteer:** Post Harvest Handling Specialist with experience in peanuts and aflatoxin

NCBA CLUSA Farmer-to-Farmer Program
Aflatoxin Management in Peanuts

Jock Brandis

Volunteer Trip Report

Assignment Information

1. Your name: Jock Brandis
2. The name of the host organization: CODEP
3. The dates of the assignment: September 3-23, 2015

Recommendations to the Host Organization (please provide a minimum of 3)
[Insert specific recommendations; i.e. among Economic Impacts; Organizational Impacts Capacity Impacts; or Environmental Impacts, for host organizations, including instructions or strategies for achieving them whenever possible.]

1. Apply for support to fund my return trip with ozone treating equipment to a small scale pilot project.

2. Look for regional markets for the 'Aflatoxin Safe' product that can be sold at a higher price than the current contaminated nuts.

3. Prepare a refresher course that might be offered to farmers just before the next harvest. Attendance would be essential to sign up for the Aflatoxin Safe program.

Achievement of Objectives

1. List assignment objectives from the Scope of Work

1. To educate smallholder farmers on the negative health and production impacts of high aflatoxin levels in peanuts and the subsequent need to reduce aflatoxin levels

2. To equip farmers with techniques available on the market to test for and reduce aflatoxin infestation in peanuts

3. To train farmers in post-harvest handling techniques that will reduce post-harvest loss and aflatoxin levels

2. Assess your success in fulfilling the objectives.

Great interest, especially because of the possibility that better nuts would get better prices.

Because our testing proved that the farmer was not responsible for high toxin rates, the 'best practices' part of the workshops became teaching the theory of how the toxin develops and re-enforcing the good habits already developed. The real success was teaching about family health issues for the nuts that they didn't sell but stored for up to 11 months. The greatest interest was in learning how they could select next year's peanut seeds for better drought resistance. They already knew how to breed for better livestock, so the technique made sense, even if they hadn't thought of it.

3. **Were there changes in the objectives during your assignment? If so, explain what the changes were and why they occurred. Did you work on objectives or in areas other than those specified in the Scope of Work? If so, explain what they were and why your work extended to those areas.**

   We did aflatoxin testing in the villages. It proved that the problem was with the wholesalers. So we still taught "best practices" and added adapting to climate change.

Key Results and Anticipated Impacts

1. **What specific actions do you realistically hope to see the hosts take in implementing your recommendations?**

   We hope the farmers maintain high standards

2. **How do you anticipate the economic well being (or income) of the host will improve as a result of implementing your recommendations?**

   Full Belly is working to restore the peanut export market which will definitely increase the 'farmgate" prices.

During your assignment, you collected the names and contact information of farmers or business people you trained. Please provide a list of them here, or as an attachment. This is essential in order for NCBA CLUSA to be able to follow-up on your assignment.

List of Contacts

– See Appendix 1.

Host Profile Data

1. **Did you obtain any data that supplements or corrects the data in the existing Host Profile? If so, please list it here.**

2. **Observations about the host organization (optional). Share your impressions of the host organization. NCBA CLUSA appreciates your assessment of the likelihood of the host organization's success in the future, their weaknesses and strengths, etc.**

Recommendations to NCBA CLUSA (optional)

1. **NCBA CLUSA is very interested in your assessment of what should be done next to assist the host organization. Should NCBA CLUSA continue to send volunteers to this host organization? In what areas do you feel the hosts could use additional volunteer assistance? These recommendations will be confidential, and not shared with the host organization.**

2. **NCBA CLUSA is also very interested in your recommendations on how the logistics of your assignment can be improved for future volunteers. Please include any detailed comments and/or recommendations concerning pre-departure briefing, in-country briefing, hosts, assignment logistics, or Program Coordinator here.**

   I feel very positive about CODEP. We expect to be working with them soon in our plan to set up peanut exports.

Appendix 1. **List of farmers and others trained**

Name	male /female	Organization/Village

I trained 50 males and 144 females in 10 villages (194) and trained 11 others.

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Farmer to Farmer Sign In Sheet

Host Organization: LOPEP
Assignment: Joek Brandis
Volunteer:

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	WHITED DAKA	MALE	0977387235	8/09/15
2	SISILIA SIMAHGO	F	–	"
3	TELESA MOTO	F	–	"
4	EDWARD TEMBO	M	0968173625	"
5	KOSIPALE SHAWA	M	0978894344	"
6	SAMDFORD MBAO	M	–	8/09/15
7	ARROHE MILAMBI	M	–	"
8	JUDTH SHAWA	F	–	"
9	AHSILIPINA MOTO	F	–	"
10	ELINA SOKO	F	–	"
11	RUTH PHIRI	F	–	"
12	MATUBA NTHAKA	F	–	"
13	MARY ZULU	F	–	"
14	ROSSO MSHANGA	F	0976695213	"
15	VASTINA HCHE	F	0961255593	"
16	BRENDAH MBEWE	F	0963537622	"
17	CECILIA LUNGU	F	0979211994	"
18	MARIA MOYO	F	–	"
19	Beatrice Mtonga	F	–	"
20	CECILIA SIMANGO	F	–	"

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NCBA CLUSA The National Cooperative Business Association • CLUSA International

Farmer to Farmer Sign In Sheet

Host Organization: CODEP
Assignment: PNH
Volunteer: Jock Brandis

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	Boma Ngombe.	M		09/09/15
2	SUZZANE MBEWE	F	0962291348	09-09-15
3	Akim mbewe.	M	0962172163	09/09-15
4	Easter Mwanza.	F	—	09/09-15
5	Micheal Sakala.	M	0964945456	09/09/-015
6	IREEN MWALE	F	0961043363	"
7	FLORENECE KAPEMBWA	F	—	"
8	EFA MAYERSI	F	—	"
9	Grace Nyirenda	F	—	09TH SEPTEMBER 2015
10	FANELI MWANZA	F	0961481881	"
11	CATHRINE TEMBO	F	0965238146	"
12	Victoria Phiri	F	0961147878	"
13	Kymuzyu Mwanza	F	0962187990	09th September 2015
14	Margret Sakala	F	—	"
15	Dora mazyopa	F	—	09TH SEPTEMBER 2015
16	Faneli Nkoma	F	—	"
17	JENALA SaKala	F		09/09/2015
18	Ngoza Sakala.	F	0964287905	"
19	Edward Phiri	M	—	"
20	IREEN TEMBO	F	—	"
21	Royce Tembo	F	0976528610	
22	Colyn Banda	F		
23	Chakaza Ngombe	F	0961986460	

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NCBA CLUSA
The National Cooperative Business Association • CLUSA International

Farmer to Farmer Sign In Sheet

Host Organization: PWH
Assignment:
Volunteer:

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	Loreness Muanza	F	—	
2	Nyamase Isaka	M	—	
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USAID FROM THE AMERICAN PEOPLE

NCBA CLUSA The National Cooperative Business Association + CLUSA International

Farmer to Farmer Sign In Sheet

Host Organization: CODEP
Assignment: Pitta Jock Brandis
Volunteer:

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	Kennesy MBulo	M	0966937717	10-9-15
2	Belina SHANVU	F	0977521809	10-9-15
3	MIRRIAM MBEWE	F	–	"
4	JANE MWANZA	F	–	"
5	Lusiya TEMBO	F	–	"
6	Ester Banda	F	0974637984	"
7	Eunice Banda	F	–	"
8	Martha Banda	F	0964734069	"
9	Naomi Saucala	F	–	"
10	Zenes Lungu	F	–	"
11	Aunes Lungu	F	–	
12	Mariana Nichoma	F	0962171899	10-09-15
13	Vutiwe Zimba	M	–	10-09-15
14	Getrude mwale	F	0976300036	10-09-15
15	Judith Phiri	F	–	"
16	Solo mwale	M	0962452652	"
17	Jossy mwale	F	–	"
18	Mary Mabwe	F	0966642396	10-09-15
19			–	10--09-15
20			–	10-09-15

COMMUNITY ORIENTED DEVELOPMENT PROJECT (CODEP)

P.O. BOX 511317 ,CHIPATA . ZAMBIA Tel: 216 223671 Cell: 0977767263

E-mail: codepchip@yahoo.com

10/09/15

DATE	NAME OF PARTICIPANT	NRC	LOCATION	PHONE NO.	SIGNATURE
1	MARK MWALE	431805/52/1	MANYONI	0962849070	M. Mwale
2	NELSON SHANZI	108323/52/1	PEASANT FARMS		N Shanzi
3	GIBSON BANDA	211712/53/1	PEASANT farm	0969436985	G. Banda
4	MARY banda	497261/52/1	ANDERSON	0963238670	M. Banda
5	FRIDES MWALE	539995/52/1	LABANI	0975108868	F. mwale
6	Vaines Jere	351959/52/1	Labani	0976257424	V Jere
7	Tressa phiri	307684/52/1	Kapita	0965129569	T. phiri
8	christine nyirenda	418691/53/1	Leme		C. nyirenda
9	Dinase mwanza	481957/52/1	Leme		D. mwanza
10	MARTHA MBEWE	345927/52/1	CHIBVUNGWE	0985248665	M. mbewe
11	FEBBY SAKALA	403662/52/1	"	0963397237	[illegible]
12	CHRISTINE ZULU	478323/52/1	ANDERSON	0965733620	C. ZULU
13	BEATRICE MWALE	400593/52/1	Peasant farm	0976444123	B. MWALE.
14	MARY MWANZA	288186/52/1	Leme		Mwanza.
15	margaret sakala	288826/52/1	peasant farms	0978644550	M. sakala
16	Princess mtonga	125685/57/1	chibvungwe v/g		A. mtonga
17	Elizabeth mwale		Simiyoni		E. M
18	Jessy mwanza	497742/52/1	Leme		J. mwanza
19	Martha Mbewe	505357/52/1	Kapita	0973235235	M. Mbewe.
20	Ruth Mwale	168862/53/1	chivungwe	0966698907	R. Mwale
21	Agness Ngoma	400210/52/1	Labani		A. Ngoma
22	Musozi zulu		Anderson		M. zulu
23	Selina Banda	325079/52/1	Anderson	0961617298	S. Banda
24	Ruth phiri	0969138417	Anderson	0969138417	R. phiri
25	Jessy phiri		Anderson		J. phiri
26	Betina zulu		Anderson	0964924187	B. zulu
27	Roissy Banda		Anderson	0965728638	B. zulu
28	Maureen Nyirenda		Anderson		M. Nyirenda
29	Getrude mooba	161601/16/1	Anderson		G. mooba
30	Veronica Banda				V. Banda

Jock Brandis
11/09/15

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NCBA CLUSA
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Farmer to Farmer Sign In Sheet

Host Organization: CODEP
Assignment: PHH
Volunteer: Jock Brandis

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	MARK MWALE	M	0962849070	14/09/15
2	NELSON SHANZI	M		14/09/15
3	GIBSON BANDA	M	0969426975	14/09/15
4	MARY BANDA	F	0963238670	14/09/15
5	FAIDES MWALE	F	0975108868	539995/521
6	VAINESS JERE	F	0976257424	351959/521
7	Tressa Phiri	F	0965129569	14/9/15.
8	christine nyirenda	F		14/9/15.
9	binase mwanza	F		14/09/15.
10	MARTHA MBEWE	F	0965248665	14/09/15
11	FEBBY SAKALA	F	0963397237	14/09/15
12	CHRISTINE ZULU	F	0965733620	14/09/15
13	BEATRICE MWALE	F	0964112340	14/09/2015
14	MARY MWANZA	F		14/09/2015
15	margaret sakala	F	0978644850	14/09/2015
16	Aness mtonga	F.		14/09/2015
17	Elizabeth Mwale	F		14/09/2015
18	Jessy mwanza	F		14/09/2015
19	Martha Mbewe	F	0973235235	14/09/2015
20	Ruth Mwale	F	0966698907	1

POST HARVEST HANDLING / AFLATOXIN MANAGEMENT

COMMUNITY ORIENTED DEVELOPMENT PROJECT (CODEP)

P.O. BOX 511317 ,CHIPATA . ZAMBIA Tel: 216 223671 Cell: 0977767263
E-mail: codepchip@yahoo.com

15/09/15

DATE	NAME OF PARTICIPANT	NRC	LOCATION	PHONE NO.	SIGNATURE
1	Jane Nkhoma		Kandam farm		J. Nkhoma
2	MONICA Phiri	515578/52/1	Kandam farm	0966254033	MP
3	Edina Sakala		Kandam farm	–	E. Sakala
4	Christine Sakala		Chingaipe / V	–	C. Sakala
5	Christine Sakala		Chingaipe/V	–	C. Sakala
6	Lazed Muvale		Chingaipe/V	–	L. Muvale
7	Nyemba Daka		Kabda farm	–	N. Daka
8	Innocent Sakala		Chikuwe	–	In. Sakala
9	Mathews Zulu	589211/52/1	chikuwe	–	[illegible]
10	Patricia Sakala		chikuwe	–	P. Sakala
11	Catherine Banda		chikuwe	–	C. Banda
12	Joseen Zulu		chikuwe	–	J. Zulu
13	Harriety Sakala		chikuwe		H. Sakala
14	Judith Muvale		chikuwe	–	J. muvale
15	Lovness Ngoma		chikuwe	–	L. Ngoma
16	Memory Ngoma		chikuwe	–	M. Ngoma
17	Samuda Ngoma		chikuwe	–	S. Ngoma
18	Beatrice Banda	600496/52/1	chikuwe	–	B. muvale
19	Esther Sakala		chikuwe	–	E. sakala
20	Mary Mwanza		chikuwe	–	E. SAKALA
21	Bless Muvale		chikuwe	–	I. MUVALE
22	Alice Banda		chikuwe	–	ALICE
23	Magret Phiri		Chikuwe	–	M. Phiri
24	Green Jemba		chikuwe	–	JEMBO
25	Esneya Zulu		chikuwe	–	E. Zulu
26	Sarah Shumba		chikuwe	–	S. Shumba
27	Falesy Mumba		chikuwe	–	F. mumba
28	Rodah Zulu		Kandam farm	–	R. Zulu
29	Fenely Phiri		Kandam farm	–	F. Phiri
30	Zenetti ZULU		CHIKUWE	–	Z. ZULU

Jock Brandis

15/09/15

COMMUNITY ORIENTED DEVELOPMENT PROJECT (CODEP)

P.O. BOX 511317 ,CHIPATA . ZAMBIA Tel: 216 223671 Cell: 0977767263

E-mail: codepchip@yahoo.com

16/09/15

DATE	NAME OF PARTICIPANT	NRC	LOCATION	PHONE NO.	SIGNATURE
1	Faneli Miti Agness Ngoma		Anderson		F. Miti
2	Beatrice Nyirenda		Anderson	0969952371	B. Nyirenda
3	Violet Mwale		Labani		V. Mwale
4	SARA BANDA	345857/52/1	KABUDULE		S. Banda
5	VALET MWALE		LABANI		V Mwale
6	JUDITH MWALE	499319/52/1	ANDERSON		
7	~~BEATRICE NYIRENDA~~	~~163443/52/1~~	~~ANDERSON~~	~~0969958371~~	BN.
8	NKHANISE PHIRI	460564/52/1	ANDERSON	0965189210	N. Phiri
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Jock Brandis

16/09/15

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NCBA CLUSA
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Farmer to Farmer Sign In Sheet

Host Organization: CODEP KAGUNDA AREA - CHIPATA
Assignment: PHH
Volunteer: Jock Brandis

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	JONES BANDA	✓	096152081	17/09/16
2	NYAMA NYIRENDA	✓	0963392052	17/09/15
3	FRED NGOMA	✓	NRC 415017/52/1	17/09/15
4	PATRICIA SAKALA	✓	0963218742	17/09/15
5	CHRISTOPHER BANDA	✓	0962289963	17/09/5
6	HELEDY PHIRI	✓	0964944074	17/09/5
7	MALENGO BANDA	✓	0968992161	17/09/15
8	NYAMA NYIRENDA Jnr	✓	0963225854	17/09/15
9	HELEN LULU	✓	NRC 414533/52/1	17/09/15
10	SUZEN BANDA		NRC 499033/52/1	17/09/15
11	ELIZABETH MUYO	✓	NRC 335585/52/1	17/09/15
12	SANGU BANDA	✓	NRC 304792/52/1	17/09/15
13	NIMON BANDA	✓	298850/54/1	17/09/15
14	MARGRET PHIRI	✓	499440/52/1	17/09/15
15	WINFRED MWALE	✓	414933/52/1	17/09/15
16	ENALA BANDA	✓	244788/52/1	17/09/15
17	DAVID NTHELE	✓	346367/52/1	17/09/15
18	SAINET BANDA	✓	304792/52/1	17/09/15
19	BISALOM PHIRI	✓	582279/52/1	17/09/15
20	MAUREEN NTHOLE	✓	400442/52/1	17/09/15
21	MARTIN TEMBO	✓	737340/53/1	"

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NCBA CLUSA
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Farmer to Farmer Sign In Sheet

Host Organization: CODEP KAGUNDA AREA - CHIPATA
Assignment: PHH
Volunteer: Jock Brandis

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	JONES BANDA	✓	096152081	17/09/16
2	NYAMA NYIRENDA	✓	0963392052	17/09/15
3	FRED NGOMA	✓	NRC 415017/52/1	17/09/15
4	PATRICIA SAKALA	✓	0963218742	17/09/15
5	CHRISTOPHER BANDA	✓	0962289963	17/09/5
6	HELEDY PHIRI	✓	0964944074	17/09/5
7	MALENGO BANDA	✓	0968992161	17/09/15
8	NYAMA NYIRENDA Jnr	✓	0963225854	17/09/15
9	HELEN ZULU	✓	NRC 414533/52/1	17/09/15
10	SUZEN BANDA		NRC 499033/52/1	17/09/15
11	ELIZABETH MUYO	✓	NRC 335585/52/1	17/09/15
12	SANGU BANDA	✓	NRC 304792/52/1	17/09/15
13	NIMON BANDA	✓	298850/54/1	17/09/15
14	MARGRET PHIRI	✓	499440/52/1	17/09/15
15	WINFRED MUSALE	✓	414933/52/1	17/09/15
16	ENALA BANDA	✓	244788/52/1	17/09/15
17	DAVID NTHELE	✓	346367/52/1	17/09/15
18	SAINET BANDA	✓	304792/52/1	17/09/15
19	BISALOM PHIRI	✓	582279/52/1	17/09/15
20	MAUREEN NTHOLE	✓	400442/52/1	17/09/15
21	MARTIN TEMBO	✓	737340/53/1	"

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Farmer to Farmer Sign In Sheet

Host Organization: CODEP KAGUNDA AREA - CHIPATA
Assignment: PHH
Volunteer: Jock Brandis

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	JONES BANDA	✓	096152081	17/09/16
2	NYAMA NYIRENDA	✓	0963392052	17/09/15
3	FRED NGOMA	✓	NRC 415017/52/1	17/09/15
4	PATRICIA SAKALA	✓	0963218742	17/09/15
5	CHRISTOPHER BANDA	✓	0962289963	17/09/5
6	HELEDY PHIRI	✓	0964944074	17/09/5
7	MALENGO BANDA	✓	0968992161	17/09/15
8	NYAMA NYIRENDA Jnr	✓	0963225854	17/09/15
9	HELEN ZULU	✓	NRC 414533/52/1	17/09/15
10	SUZEN BANDA		NRC 499033/52/1	17/09/15
11	ELIZABETH MUYO	✓	NRC 335585/52/1	17/09/15
12	SANGU BANDA	✓	NRC 304792/52/1	17/09/15
13	NIMON BANDA	✓	298850/54/1	17/09/15
14	MARGRET PHIRI	✓	499440/52/1	17/09/15
15	WINFRED MUSALE	✓	414933/52/1	17/09/15
16	ENALA BANDA	✓	244788/52/1	17/09/15
17	DAVID NTHELE	✓	346367/52/1	17/09/15
18	SAINET BANDA	✓	304792/52/1	17/09/15
19	BISALOM PHIRI	✓	582279/52/1	17/09/15
20	MAUREEN NTHOLE	✓	400442/52/1	17/09/15
21	MARTIN TEMBO	✓	737340/53/1	"

POST HARVEST AND HANDLING / AFLATOXIN MANAGEMENT

COMMUNITY ORIENTED DEVELOPMENT PROJECT (CODEP)

P.O. BOX 511317 ,CHIPATA . ZAMBIA Tel: 216 223671 Cell: 0977767263

E-mail: codepchip@yahoo.com

18/09/15

DATE	NAME OF PARTICIPANT	NRC	LOCATION	PHONE NO.	SIGNATURE
1	Rhoda Tembo	412108/52/1	Vwala	0962287096	[illegible]
2	Keclita phiri		Kawendama		K. Phiri
3	Abiless Phiri	173858/52/1	Kawendama	0974130770	A. P.
4	mama mumba		Kawendama		M. Mumba
5	ESTER SAKALA	189227/16/1	VWALA	0967779269	E. Sakala
6	Mwaona Zulu	427636/52/1	Vwala	0962291159	M. Zulu
7	Tiemepo Naka		Vwala		T. Naka
8	Magret Longue		Vwala		M. Longue
9	Jelita Tembo	459192/52/1	Vwala		J. Tembo
10	MWATITHA MBEWE	497310/52/1	Vwala	0964077306	M. Mbee
11	ESTHER ZULU		Kawendama	0964093208	E. ZULU
12	Patricia Phiri	400107/52/1	Vwala.		P. Phiri
13	Grace Lungu	454420/52/1	Kawendama		G. Lungu
14	Irene nyirenda		Vwala		I. nyirenda
15	biyase ngoma		Vwala		b. Ngoma
16	Zelipa mwale		Vwala		Z. Mwale
17	~~Ester Sakala~~	~~189227/16/1~~	~~Vwala~~	~~0967779269~~	~~E. Sakala~~
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JOCK Brandis

18/09/15

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DIRECT BENEFICIALLY

NCBA CLUSA The National Cooperative Business Association • CLUSA International

Farmer to Farmer Sign In Sheet

Host Organization: CODEP / ~~CDFA~~
Assignment: Jock Brandis
Volunteer:

No.	First and Last Name	Male/Female	Telephone # NRC	Dates Attended
1	RABSON MBAO	M	534774/59/1	14/09/15
2	BIBALOM SAKALA	M	433341/52/1	14/09/15
3	DANIEL LUNGU	M	–	16/09/15
4	Kondwelan Sakala	M	–	17/09/15
5	Aniet Sakala	F	0973475211/phone	17/09/15
6	Mary Zulu	F	–	17/015
7	SOUSO LUNGU	M	–	18/015
8	Joseph Mbewe	M	334092/11/54/1	18/09/15
9	BETANIKO BANDA	M	904251/52/1	18/09/15
10	Chalie Banda	M	634731/52/1	18/10/15
11	Beatrice Ngoma	F	474771/52/1	
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BOARDING PASS:

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

FLIGHT NO:	BOARDING TIME:	GATE:	SEAT:	CLASS:	SEAT:
DL201	18:45		33D	Y/Y	33D

NAME: BRENDERABRANDIS/JO
FROM: JOHANNESBURG/JNB
TO: ATLANTA/ATL

CLASS: Y/Y
DATE: 23SEP

ETKT 10067675819705

SEQ NO: 67

BRENDERABRANDIS/JO
DL 201 23SEP
FROM: JOHANNESBURG/J
TO: ATLANTA/ATL

DEPARTURE TIME: 19:25

ETKT 10067675819705
SEQ NO: 67

DELTA

BOARDING PASS

TSA PRECHK

BRENDERABRANDIS/JOOS 2 006 7675819704 2
HW5E6F

LK1SFUS

FLIGHT	DATE	CLASS	ORIGIN	DEPARTS
DL200	03SEP	L	ATLANTA	710P

OPERATED BY
DELTA AIR LINES INC

MAIN DESTINATION
JOHANNESBURG
BRD TIME 615P

SEAT 36D
ZONE 2

DEPARTURE GATE – SEE AIRPORT MONITORS

DOCS-OK

BCN
ATL069

BAGS
02

ILM235819/KL

BOARDING PASS

BRENDERABRANDIS/JOOS

FLIGHT DATE
DL200 03SEP

SEAT 36D
ZONE 2

ORIGIN
ATLANTA
DESTINATION
JOHANNESBURG
OPERATED BY DELTA AIR LINES INC

BCN
ATL069

BAGS
02

DELTA

ITINERARY FOR BRENDERABRANDIS/JOOS

CONF NBR HW5E6F

DATE	CARRIER	CITY	FLT/TIME	SEAT	CLASS	GATE
03SEP15	DELTA AIR LINES INC		DL 5245	8C	MAIN	07
	OPERATED BY EXPRESSJET DBA DELTA CNX	WILMINGTON	LV 1139A	ZONE 01		CONFIRMED
	A DELTA CONNECTION CARRIER	ATLANTA	AR 105P	READY TO BOARD		
03SEP15	DELTA AIR LINES INC		DL 200	36D	MAIN	
04SEP15		ATLANTA	LV 710P	ZONE 02		CONFIRMED
		JOHANNESBURG	AR 450P	READY TO BOARD		
04SEP15	SOUTH AFRICAN AIRWAYS		SA 66			
		JOHANNESBURG	LV 705P			CONFIRMED
		LUSAKA	AR 910P	CHECK IN REQUIRED		

GATE SUBJECT TO CHANGE - SEE AIRPORT MONITORS

DELTA TSA PRECHK BOARDING PASS

BRENDERABRANDIS/JOOS 1 006 7675819704 6
HW5E6F

LK1SFUS

FLIGHT	DATE	CLASS	ORIGIN	DEPARTS	SEAT
DL5245	03SEP	L	WILMINGTON	1139A	8C
OPERATED BY		MAIN	DESTINATION	BRD TIME	EXIT
EXPRESSJET DBA DELTA CNX			ATLANTA	1114A	ZONE 1

DEPARTURE GATE 07 **SUBJECT TO CHANGE**

504

BAGS 02

ILM235819/KL

BOARDING PASS

BRENDERABRANDIS/JOOS

FLIGHT	DATE	SEAT
DL5245	03SEP	8C
ORIGIN		EXIT
WILMINGTON		ZONE 1

DESTINATION
ATLANTA

OPERATED BY EXPRESSJET DBA DELTA C
A DELTA CONNECTION CARRIER

BAGS 02

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

CLASS: Y/W SEAT: 22C

ECONOMY CLASS
BRENDERABRANDIS/JO
SA 66 04SEP
FROM: JOHANNESBURG/J
TO: LUSAKA/LUN

DEPARTURE TIME: 19:05

ETKT 30067675819704
SEQ NO: 97
2/KG

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

CLASS: Y/W SEAT: 21C

ECONOMY CLASS
BRENDERABRANDIS/JO
SA 65 23SEP
FROM: LUSAKA/LUN
TO: JOHANNESBURG/J

DEPARTURE TIME: 16:05

ETKT 40067675819704
SEQ NO: 41

Farmer-to-Farmer Program
Management of Aflatoxin in Peanuts
Scope of Work

Host/Partner: Chipata District Farmers Association (CDFA)

Beneficiary Organization: Chipata District Farmers Association (CDFA)	**Location of Project:** Chipata Eastern Province, Zambia
Primary Contact Person: Virgil Malambo	**Date Project Started:** April 2015
Telephone/Fax: +260 97 776 764	**Type of Assignment:** Post Harvest Handling and Aflatoxin Management
Email: chipatafarmers@yahoo.com	**Dates of Assignment:** August 2015
Brief background on beneficiary organization: Chipata District Farmers Association (CDFA) is a Non-Governmental Farmers Association with 2,000 registered farmers, most of whom are small-scale farmers. CDFA works with 1,500 peanut producers, 85% of whom are women. The Association's main focus in the Eastern Province is offering training to farmers in agriculture related subjects such as poultry, piggery, crop husbandry, and agribusiness. It also focuses on poverty reduction and land access for disadvantaged members of the community. The association offers seasonal agricultural inputs on credit in partnership with Zambia National Farmers Union (ZNFU) and Zambia National Commercial Bank (ZANACO). High aflatoxin levels are often found in Zambian peanuts. Unacceptable levels of aflatoxin have led to the blockage of most Zambian peanuts into lucrative South African and European markets. Most smallholder farmers are unaware of the need to reduce aflatoxin and the technology available on the market to assist in its reduction. The end result is peanuts that do not meet export standards and contribute to poor nutritional and cognitive development among children.	**Objectives of the Assignment:** • To educate smallholder farmers on the negative health and production impacts of high aflatoxin levels in peanuts and the subsequent need to reduce aflatoxin levels • To equip farmers with techniques available on the market to test for and reduce aflatoxin infestation in peanuts • To train farmers in post-harvest handling techniques that will reduce post-harvest loss and aflatoxin levels

<table>
<tr><td colspan="2">Tasks to be carried out:
• Outline farmers’ expectations of the volunteer for the assignment duration
• Identify farmers’ practices which cause high aflatoxin levels
• Train farmers on the importance of low aflatoxin levels for commercial sale and health
• Introduce technologies in processing to reduce aflatoxin levels to meet export standards</td></tr>
<tr><td>Expected number of persons to be trained (m/f):
10/20</td><td>Required expertise of Volunteer:
Post-Harvest Handling Specialist with experience in peanuts and aflatoxin management</td></tr>
</table>

NCBA CLUSA Farmer-to-Farmer Program
Management of Aflatoxin in Peanuts

Randy Shackelford

Volunteer Trip Report

Assignment Information

Randy Shackelford
Chipata District Farmers Association
Sept 3-23, 2015

Recommendations to the Host Organization (please provide a minimum of 3)

1. Provide copies of the "Feed the Future" Aflatoxin informational flyer to group/cooperative leaders so information can be quickly reviewed at future meetings. Also, the information in this flyer could then be more easily shared with farmers who were not able to attend training sessions which we conducted.

2. Continue to disseminate information from this assignment's findings which reduce aflatoxin. i.e. field drying techniques and duration, elevated granary storage cribs, use of hand operated nut sheller (like the Full Belly Project Universal Nut Sheller)

3. Research and procure more sources of funding to subsidize the purchase of hand operated nut shellers for farmer/womens groups to own and use cooperatively. Attendees indicated it presently averages three days to shell one 50kg bag of groundnuts; whereas, the nut sheller we demonstrated will shell one 50 kg bag of groundnuts in approximately one hour. No attendees had previously seen this hand operated nut sheller and it is now manufactured in Chipata by locally owned company Zasaka. All attendees indicated they would like to take advantage of this quicker method and use the time saved to perform other farm/home tasks!

4. Assess the feasibility and practicality of using irrigation to ensure less crop loss due to drought. We demonstrated the Full Belly Project Rocker Water Pump as one means to irrigate if water is available on the ground surface or at depths no more than three meters. All the farmers who operated the Rocker Water Pump said that it was much easier to operate than treadle or other style pumps which they had used in the past. This pump is also being manufactured locally by Zasaka.

Achievement of Objectives

a. To educate smallholder farmers on the negative health and production impacts of high aflatoxin levels in peanuts and the subsequent need to reduce aflatoxin levels.
b. To equip farmers with techniques available on the market to test for and reduce aflatoxin infestation in peanuts.
c. To train farmers in post-harvest handling techniques that will reduce post-harvest loss and aflatoxin levels.

1. **Assess your success in fulfilling the objectives.**

   a. Several farmers actually said "I learned a lot from you". At the end of one training session the womens group broke out into song. I was told the meaning of the song was "We now have knowledge and we must put it to good use and not let it be wasted."

   b. I emphasized to the farmers to engage in discussion and to comment freely. Because, we all have the same goals, we want a safe food supply for our families and we want to improve our families' economic condition. Through farmer interaction and discussion we learned of very successful aflatoxin reduction techniques which were already being used by some farmers. We were able to substantiate these findings by using the mReader aflatoxin lab test with specific samples from farmers where we recorded different drying, storage and shelling techniques.

   c. After ascertaining more data from farmer's groundnuts and testing them for aflatoxin, we shared the most successful post harvest handling techniques at subsequent meetings. Each training session had representatives from multiple groups who were tasked with disseminating information from our sessions to other group members who could not attend our meetings.

2. **Were there changes in the objectives during your assignment? If so, explain what the changes were and why they occurred. Did you work on objectives or in areas other than those specified in the Scope of Work? If so, explain what they were and why your work extended to those areas.**

   Yes, there were changes. After finding low ppb (parts per billion) levels in groundnut samples from multiple farmers, we focused on detecting the source of higher levels which we found in peanut butters. All but one groundnut sample obtained from farmers tested below the EU export level of 4 ppb. We found higher levels in local outdoor market and grocery store peanut butters which we sampled. We believe elevated aflatoxin levels in market and grocery store peanut butters was due to wholesaler storage techniques and peanut butter processor methods. Additionally, we trained the Zambia Agricultural Laboratory director and technicians in the use of the mReader. We left this technology with this Msekera Lab in Chipata so they can now have aflatoxin test results in 15 minutes versus taking 3-4 weeks or more for samples to be sent off and results received from the national bureau of standards in Lusaka. We also met with the Zambian Ministry of Agriculture Provincial Agricultural Coordinator, Dr. Obvious Kabinda, who was quite eager to partner with us to develop

procedures for implementing an "aflatoxin safe certification" and re-establish export marketability for Zambian groundnuts.

Key Results and Anticipated Impacts

1. **What specific actions do you realistically hope to see the hosts take in implementing your recommendations?** I was highly impressed with the professionalism of all the CDFA staff and the desire of farmers to learn and improve their crops and thus their earning potentials. Therefore, I believe all of the aforementioned recommendations to the host organization (CDFA) will likely be successfully implemented.

2. **How do you anticipate the economic well being (or income) of the host will improve as a result of implementing your recommendations?** Once the farmers start reaping rewards from these recommendations I anticipate more trust toward CDFA and increased farmer participation.

During your assignment, you collected the names and contact information of farmers or business people you trained. Please provide a list of them here, or as an attachment. This is essential in order for NCBA CLUSA to be able to follow-up on your assignment.

List of Contacts

List of farmers and others trained : 178 direct beneficiaries, and trained 11 others

– See Appendix 1.

Host Profile Data

1. **Did you obtain any data that supplements or corrects the data in the existing Host Profile? If so, please list it here.**

2. **Observations about the host organization (optional). Share your impressions of the host organization. NCBA CLUSA appreciates your assessment of the likelihood of the host organization's success in the future, their weaknesses and strengths, etc.**

Recommendations to NCBA CLUSA (optional)

1. **NCBA CLUSA is very interested in your assessment of what should be done next to assist the host organization. Should NCBA CLUSA continue to send volunteers to this host organization? In what areas do you feel the hosts**

could use additional volunteer assistance? These recommendations will be confidential, and not shared with the host organization. Chipata District Farmers Association has a very good relationship with many farmer/womens groups. Their organizational ability to gather so many individual farmers from such a large geographical area enabled us to train significantly more farmers in this assignment than would seem possible in the amount of time allotted. CDFA could use assistance in procuring funding to help subsidize technologies which would tremendously increased the farmers' productivity. Universal nut shellers and in some areas, rocker water pumps would be most beneficil to these farmers.

2. **NCBA CLUSA is also very interested in your recommendations on how the logistics of your assignment can be improved for future volunteers. Please include any detailed comments and/or recommendations concerning pre-departure briefing, in-country briefing, hosts, assignment logistics, or Program Coordinator here.** Assistance given by all at each level was very helpful, accommodating and pleasurable. Although documents for an additional country would be involved, I expect costs of additional fuel and Alex's lodging could have been offset if we had flown through Lilongwe, Malawi instead of Lusaka, Zambia. The road trip from Lusaka to Chipata was eight hours and we were told the trip from Lilongwe to Chipata was only two hours. Additionally, at present the road from Lusaka to Chipata is 35-40% under construction with delays and very bumpy and dusty temporary diversion roads. Nonetheless, the trip was interesting and afforded good conversation with Alex Hansingo!

Appendix 1. **List of farmers and others trained**

Name	male /female	Organization/Village

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NCBA CLUSA
The National Cooperative Business Association • CLUSA International

Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: PHH
Volunteer: RANDY SHACKELFORD Randy Shackelford 15 SEP 2015

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	AGNESS PHIRI	F	0973-961008	15-09-2015
2	NAOMIE PHIRI	F	0975-695270	15-09-2015
3	VAST MWALE	F	0972-571138	15-09-2015
4	JENIPHER HARA	F	0972-563978	15-09-2015
5	JENIPHER ZULU	F		15-09-2015
6	MULUMZE ZULU	F		15-09-2015
7	DOROTHY NGOMA	F		15-09-2015
8	TILA NGOMA	F		15-09-2015
9	FIODE MAFULEKA	F		15-09-2015
10	RABECCA MSONI	F		15-09-2015
11	FROLENCE TEMBO	F	0979-518145	15-09-2015
12	MAGRET MSONI	F		15-09-2015
13	GIBSON NGOMA	M	0977 994645	15-09-2015
14	LIMITED PHIRI	M		15-09-2015
15	LENGANI BANDA	M		15-09-2015
16	UNICE CHONGWE	F		15-09-2015
17	BRENDA MWANZA	F		15-09-2015
18	MISOZI NGOMA	F		15-09-2015
19	OLIPA MITI	F		15-09-2015
20	MARTHA ZIMBA	F		15-09-2015

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NCBA CLUSA The Nation's Cooperative Business Association • CLUSA International

Farmer to Farmer Sign In Sheet

Host Organization: COFA
Assignment: PHH
Volunteer: RANDY SHACKELFORD Randy Shackelford 11 SEP 2015

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	Alice mithi	F	0979482126	Nkholowondo 11/09/15
2	florence Ngoma	F	–	Nkholowondo 11/09/15
3	Agness Mbewe	F	09	11-09-15
4	Royce Banda	F NRC	181821/521	N/Kholowondo 11-09-15
5	Esther Banda	F		"
6	Sarah Phiri	F NRC	613600/521	– "
7	Lyson Mwale	M NRC	399755/521	0961412097 N/Kholowondo
8	John Zulu	M	0965662026	Chikanda 11/09/15
9	Christina Ziwa	F	0965704189	Manjakazi
10	Masiye Ngoma	NRC	539073/521	Manjakhazi 11/09/15
11	Joshua Mohanga	M		Chikanda 11-09-15
12	Fosta Shaba	M NRC	572564/521	Chikanda 11/09-15
13	Tilekan Mbewe	NRC	204876/521	Chikanda 11 09 15
14	Tisakile Phiri	NRC	213878/521	Chikanda 11-09-15
15	Margret Sakala	F NRC	370374/521	Chikanda
16	Elizabeth Dalla	F		Chikanda 11 09-15
17	Magless Ngoma	F		Chikanda "
18	Emelia hungu	F NRC	322494/521	Chikanda "
19	Hedrick Ngoma	M		"
20	Gerest Nyirend	F NRC	902392/521	Ckando "

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FROM THE AMERICAN PEOPLE

NCBA CLUSA
The National Cooperative Business Association • CLUSA International

Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: PHH AND AFLATOXIN MANAGEMENT
Volunteer: RANDY SHACKELFORD, Randy Shackelford 9/9/15

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	AGNESS BANDA			09.09.15
2	ELLAH BANDA		0963660561	09.09.15
3	ELIZABETH NYIRENDA		0964926351	09.09.15
4	VASTY BANDA		0953900991	09.09.15
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USAID FROM THE AMERICAN PEOPLE

NCBA CLUSA The National Cooperative Business Association • CLUSA International

Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: PHH
Volunteer: RANDY SHACKELFORD Randy Shackelford 08 SEP 2015

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	MAUREEN NGOMA	F	0965547953	8-09-2015
2	CHRISTINE MUNTHALI	F	0967063236	8-09-2015
3	MARTHA PHIRI	F	—	8-09-2015
4	PHIRI RONALD	M	—	8-09-2015
5	CHISI MWANIDA	F	—	08-09-2015
6	VICTOR OAKA	M	0964616309	08-09-2015
7	EVELESS Banda	F	0977722992	08-09-2015
8	GRACE Mette	F	0963160637	08-09-2015
9	LOVESON TEMBO	M	0964037487	08-09-2015
10	Thadi ZERE	M	0968037487	08-09-2015
11	MAKAWA Zina	M	0962149493	08-09-2015
12	Phuli B.R.	m	— — —	08-9-2015
13	Banda masauto	m	0963218849	08-9-2015
14	LEMMY SOKO	M	0961688823	08-9-2015
15	DAVSON Banda	M	0962285772	08-09-2015
16	Samuel Chisi	m	— — — — —	08-09-2015
17	PRALCATV SOKO	M	— — — — —	08-09-2015
18	CHARLES PHIRI	M	— — — —	08-09-2015
19	AFRON PHIRI	M	— — — — —	08-09-2015
20	PHIRI BAZIRIAL	M	0965581647	08-09-15

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FROM THE AMERICAN PEOPLE

NCBA CLUSA

Host Organization: CDFA
Assignment: PHH
Volunteer: RANDY SHACKELFORD Randy Shackelford 17 SEP 2015

	FIRST AND LAST NAME		MALE/FEMALE	TELEPHONE #	DATES ATTENDED
01	NDA-NDA	BANDA	M	0955897489	17th Sep - 2015
02	MARTHA	PHIRI	F	–	
03	MISOZI	BANDA	F	–	17 Sep - 2015
04	ELIDA	SAKALA	F	–	
05	MUIEME	SAKALA	F	–	17 - Sep - 2015
06	DINA	Zulu	F	–	
07	SUZEN	MBEWE	F	–	"
08	ROSEMARY	ZIMBA	F	–	
09	NYUMA	SAKALA	F	0967394077	"
10	HELLEN	ZIMBA	F	–	
11	SHARON	TEMBO	F	–	"
12	MISOZI	Zulu	F	0973349367	
13	CHARITY	Zulu	F	–	"
14	SUZEN	Zulu	F	–	
15	MANYONI	Zulu	M	–	"
16	RhoDA	BANDA	F	0988854397	
17	PAUL	NKHOMA	M	–	17th SEPT - 2015
18	SOFIA	MOYO	F	–	"

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NCBA CLUSA
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Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: PHH
Volunteer: RANDY SHACKELFORD Randy Shackelford 10 SEP 2015

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
	ELIZABETH ZULU	F	0965003923	10 - 9 - 2015
	RODA MWALE	F	"	10 - 9 2015
	TISAUKE NGUNI	F	0976071159	10 - 9 2015
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Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: PHH
Volunteer: RANDY SHACKELFORD Randy Shackelford 16 SEP 2015

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	FE BBY MALINDI	F	0962163372	16th sept 2015
2	PRISCA ZULU	F	0961050544	16th september 2015
3	MOSES MWALE	M	0976953279	"
4	THOMSON ZULU	M	–	"
5	ALICK ZULU	M	–	"
6	IFA BANDA	M	4044017/5211	"
7	PAUL PHIRI	M	–	"
8	MASIYE MBEWE	M	–	"
9	WILLIAM MBEWE	M	–	"
10	TILAPE PHIRI	F	–	"
11	ELIMA PHIRI	F	–	"
12	MUTUNDU ZULU	F	0966398055	"
13	GEZILE ZULU	F	094399341	"
14	MARTHA MWAE	F	–	"
15	DOROTHY BANDA	F	–	"
16	ELIDA ZULU	F	–	"
17	EMELES BANDA	F	–	"
18	ZELIPA SAKALA	F	–	"
19	RACHAEL MPHANDE	F	–	"
20	MATHIAS PHIRI	M	0977463549	"

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Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: PHH
Volunteer: RANDY SHACKELFORD Randy Shackelford 10 SEP 2015

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	LILIAN NYIRENDA	F	411001/52/1	10/09/2015
2	JANNIE SAKALA	F		10/09/2015
3	DLIPA MWALE	F	0974950838	10/09/2015
4	ELIZABETH NGOMA	F	0966574180	10/09/2015
5	EDAH KAMANGA	F	0968180276	10/09/2015
6	ALBINA CHONGO	F	129999/63/1	10/09/2015
7	ADRIAN NYANGY	F	0979495703	10/09/2015
8	ELIDAH NYIRENDA	F		10/09/2015
9	GIVEN KAMANGA	F	0967864413	10/09/2015
10	MAGRET TEMBO	F		10/09/2015
11	MADA SAKALA	F	0979916610	10/09/2015
12	ELIZABETH NYIRENDA	F		10/09/2015
13	MALITA TEMBO	F	342429/52/1	~~0961~~ 0961145561
14	CATHRINE BANDA	F		10/09/2015
15	ESINA BANDA	F	289625/52/1	10/09/2015
16	BEHADETTE HGOMA	F	0979338052	10/09/2015
17	MAGRET TEMBO	F	0978294456	10/09/2015
18	MELINA BANDA	F	0965706679	10/09/2015
19	TISAUKE musowi	f		10/09/2015
20	DINA Band	F	0964416837	10/09/2015

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Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: PHH
Volunteer: RANDY SHACKELFORD Randy Shackelford 08 SEP 2015

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	Telesa Sakala	F	–	8th September 2015
2	Sara mkandawire	F	–	8/09/2015
3	Elina Nyirenda	F	–	8/09/2015
4	Clément Tembo	M	0963710712	8-09-15
5	Arisi Nyirenda	F	–	8-09-15
6	Liwizinji Mthi	F	–	08-09-15
7	Donaya Zulu	F	–	08-09-15
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Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: PHH
Volunteer: RANDY SHACKELFORD Randy Shackelford 16 SEP 2015

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	FE BBY MALINDI	F	0962163372	16th sept 2015
2	PRISCA ZULU	F	0961050544	16th september 2015
3	MOSES MWALE	M	0976953279	"
4	THOMSON ZULU	M	–	"
5	ALICK ZULU	M	–	"
6	IFA BANDA	M	4044017/5211	"
7	PAUL PHIRI	M	–	"
8	MASIYE MBEWE	M	–	"
9	WILLIAM MBEWE	M	–	"
10	TILAPE PHIRI	F	–	"
11	ELIMA PHIRI	F	–	"
12	MUTUNDU ZULU	F	0966398055	"
13	GEZILE ZULU	F	094399341	"
14	MARTHA MWAE	F	–	"
15	DOROTHY BANDA	F	–	"
16	ELIDA ZULU	F	–	"
17	EMELES BANDA	F	–	"
18	ZELIPA SAKALA	F	–	"
19	RACHAEL MPHANDE	F	–	"
20	MATHIAS PHIRI	M	0977463549	"

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Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: PHH
Volunteer: RANDY SHACKELFORD Randy Shackelford 15 SEP 2015

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	EDINA ZULU	F		15-09-2015
2	MARY MWALE	F		15-09-2015
3	~~M~~ CATHRINE MAZYOPA	F		15-09-2015
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Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: PHH AND AFLATOXIN MANAGEMENT
Volunteer: RANDY SHACKELFORD, Randy Shackelford 9/9/15

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	JOHN MBEWE	MALE	0965650104	09.09.15
2	~~JANE NKHOMA~~	~~FEMALE~~	~~0966696445~~	
3	JANE NKHOMA	FEMALE	09666469	09.09.15
4	HARRIET BANDA	FEMALE		09.09.15
5	TISIYENJI BANDA	FEMALE		09.09.15
6	TINENENJI PHIRI	FEMALE		09.09.15
7	REGINA BANDA	FEMALE		09.09.15
8	ELEZABETH PHIRI	FEMALE		09.09.15
9	TIYANKHENJI NKHOMA			09.09.15
10	MARY KAMANGA	FEMALE		09.09.15
11	MARY THOLE	FEMALE		09.09.15
12	MIRRIAM RIMBA		0964667312	09.09.15
13	PATRICIA TONGA		09	09.09.15
14	JUSTINA PHIRI		0962294963	09.09.15
15	DYNA BANDA			09.09.15
16	BRENDA BANDA			09.09.15
17	JUDY BANDA			09.09.15
18	MARGRET NKHOMA			09.09.15
19	JUSTINA PHIRI			09.09.15
20	BANDA MARGRET		0966749057	09.09.15

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Farmer to Farmer Sign In Sheet

— GROUPS
* Chimwala womens groups
* Masukani women groups
* Thithandizane grain bank group

Host Organization: CDFA
Assignment: PHH
Volunteer: RANDY SHACKELFORD Randy Shackelford 14 SEP 2015

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	Justina Nyoni	F	0978874321	14-09-2015
2	tilekana Phiri	F	0963724137	14-09-15
3	Fatiness Jere	F	154072/5211	14-09-15
4	Mirriam Lunwu.	F	—	14-09-15
5	TREEM JERE.	F	—	14-09-15
6	Matrida Mziya.	F	732071/5211	"
7	Florence Chongwe.	F	1123074/521	"
8	Beatrice Soko	F	0984333451	14-09-15
9	Veronica Zulu.	F	095073349	14-09-2015
10	Brenda Maunda	F	—	"
11	JUSTINA MWAFUZA	F	—	"
12	ELIZABETH MBULO.	F	—	"
13	Maximona. MaDaka	F	—	"
14	Judith Zulu.	F	537037/5211	"
15	Anastasia Zyambo	F	—	"
16	Martha Msumuka.	F	—	14th September 2015
17	VIDAH ZULU.	F	—	14th SEPTEMBER
18	ALIBET DAKA	F	—	"
19	TIKAMBENJI MBULO	F	—	"
20	FALESI NKATA.	F	—	"
21	ENELITA SOKO	F	0977439142	14/09/15
22	OZOBIYA NJOVU	M	—	14/09/15
23	[illegible]	[illegible]	[illegible]	14-09-15

	FIRST AND LAST NAME	MALE/FEMALE	Telephone #
21	TRESSA MOYO	F	
22	VAZEN TEMBO	F	—
23	EZRA TEMBO	F	—
24	SENIA TEMBO	F	—
25	EPHEL TONGA	F	—
26	MONICA ZULU	F	—

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

CLASS: Y/W SEAT: 20C

ECONOMY CLASS
SHACKELFORD/RANDY
SA 65 23SEP
FROM: LUSAKA/LUN
TO: JOHANNESBURG/J

DEPARTURE TIME: 16:05

ETKT 40067675819702
SEQ NO: 42

BOARDING PASS

SHACKELFORD/RANDYLYN

SEAT 38C
ZONE 2

LIGHT DATE
DL201 23SEP
RIGIN
JOHANNESBURG
ESTINATION
ATLANTA
OPERATED BY DELTA AIR LINES INC

BCN JNB068
BAGS 02
ACS 08-13

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

CLASS: Y/Y SEAT: 7A

SHACKELFORD/RANDY
DL 5245 24SEP
FROM: ATLANTA/ATL
TO: WILMINGTON/ILM

DEPARTURE TIME: 09:50

ETKT 20067675819703
SEQ NO:

6006589765
AGENT ILM/VV 22E710 02/
PNR:HWTNPF 03SEP16 10
SHACKELFORD/RANDYLY
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DL5245 11 035

6006589765

Farmer-to-Farmer Program
Improved Soil Fertility
Scope of Work

Host/Partner: Every Home for Christ

Beneficiary Organization: Every Home for Christ	**Location of Project:** Katete Eastern Province, Zambia
Primary Contact Person: Samson Jiya	**Date Project Started:** March 2015
Telephone: +260 0967785052	**Type of Assignment:** Improving Soil Fertility for Peanut Production
Email: ehczambia@yahoo.com	**Dates of Assignment:** December 2015
Brief background on beneficiary organization: Every Home For Christ is an international nonprofit that supports smallholder farmers around the world. EHC Zambia operates in Katete District, Eastern Province with a network of approximately 6,000 smallholder farmers. They offer smallholder farmers training in conservation farming, input support, extension services, nutrition education, and environmental education. The vast majority of groundnut farmers in Eastern Province produce as little as 300 kg per Ha of peanuts as opposed to the potential of over 2,000 kg. Lack of access to technical knowledge on how to manage soil PH and fertility are production weaknesses that contribute to lower yields. This assignment will equip farmers with soil management techniques that will allow them to increase their yields.	**Objectives of the Assignment:** • To equip groundnut farmers with techniques that will improve soil PH levels, including the correct use of fertilizer, gypsum, and lime, which will improve yields in seed multiplication and grain production. • Teach peanut farmers how to recognize fertile soil, how to improve soil fertility, and practices to avoid soil erosion • Teach peanut farmers about the peanut growing cycle and the necessary care in each stage
Tasks to be carried out: • Teach importance of soil testing • Training on plant nutrition for peanuts • Practical training in application and use of recommended blended fertilizer, lime and gypsum • Soil management training • Land preparation training	
Expected number of persons to be trained (m/f): 15/15	**Required expertise of Volunteer:** Plant agronomist

NCBA CLUSA Farmer-to-Farmer Program
Improving Soil Fertility for Peanuts in Katete, Zambia

Ryan Hottle

Volunteer Trip Report

Assignment Information

1. Your name: Ryan Hottle
2. The name of the host organization: Every Home for Christ Zambia
3. The dates of the assignment: January 1-15, 2016

Recommendations to the Host Organization (please provide a minimum of 3)
[Insert specific recommendations; i.e. among Economic Impacts; Organizational Impacts Capacity Impacts; or Environmental Impacts, for host organizations, including instructions or strategies for achieving them whenever possible.]

1. **Capacity building:** better training on agronomy, marketing, post harvesting handling etc. in order to more effectively work with and train farmers. It was not clear EHC staff had strong training in the essential knowledge sets and skills necessary to most effectively engage with farmers.

2. **Equity and partnership:** treating farmers and farming communities like equal partners accomplishing goals of improving yields, reducing poverty etc. instead of subordinates. A small but representative example of this was EHC insisting on eating first and separately from farmers after trainings. At the third training an argument between EHC staff and farmers broke out over whether EHC had unfairly collected dues from farmers without providing promised bags of fertilizers. Although the full extent of the disagreement was not clear, from what I was able to gather the organization had collected a fairly significant amount of money from each of the farmers with the understanding that they would be provided fertilizers. When the fertilizers did not arrive, the farmers contacted local authorities. EHC staff essentially told the farmers that the payments were required to form the farmer co-operative and that it was the government's fault the fertilizers had not arrived but that they would not give the money back. Many of the farmers were clearly upset and expressed this. In addition to being an ethically questionable stance, I found it was quite unfortunate that EHC staff initiated this conversation (which sounded like more of a scolding) in the middle of the training as this set an unpleasant move and associated our training with the questionable practices.

3. **Organization and punctuality:** The EHC office was poorly organized and meetings were often delayed by an hour or more. Supplies that were supposed to be procured in advance (food and beverage and stationary supplies) had to be purchased directly before

meetings with farmers every single day. Such disorganization and lack of timeliness set a poor tone and disjointedness. At the first meeting there were not enough food and beverages so nothing was given out to farmers despite meeting lasting nearly 3 hours during a hot day. The next day the Volunteer gave 100 ZMW to help ensure supplies were procured.

Achievement of Objectives

1. List assignment objectives from the Scope of Work

1. To equip groundnut farmers with techniques that will improve soil PH levels, including the correct use of fertilizer, gypsum, and lime, which will improve yields in seed multiplication and grain production.

2. Teach peanut farmers how to recognize fertile soil, how to improve soil fertility, and practices to avoid soil erosion

3. Teach peanut farmers about the peanut growing cycle and the necessary care in each stage

2. Assess your success in fulfilling the objectives.

I felt that that we successfully achieved objectives principally through the gracious support, knowledge and organization of CLUSA's Alexander Hansingo.

3. Were there changes in the objectives during your assignment? If so, explain what the changes were and why they occurred. Did you work on objectives or in areas other than those specified in the Scope of Work? If so, explain what they were and why your work extended to those areas.

No changes were made, but additional work was conducted. I conducted a TOT with CODEP farmers on soil testing methods, and also developed a cost-benefit analysis for farmers on purchasing of inputs.

Key Results and Anticipated Impacts

1. What specific actions do you realistically hope to see the hosts take in implementing your recommendations?

I hope to see Every Church for Christ complete 10-20 farmer surveys and to implement research plots and distribution of fertilizer and lime with donation from Volunteer.

I hope farmers will be able to test fertilizer and lime on their field this growing season in order to evaluate outcomes, but remaining doubtful that farmers will truly have the technical knowledge or economic rationale for applying fertilizers and lime based on the Farmer Surveys and Cost Benefit Analysis described above. The Volunteer did provide

alternatives to purchased fertilizer and lime (manure, wood ash, and charcoal) as potential soil amendments.

2. **How do you anticipate the economic well being (or income) of the host will improve as a result of implementing your recommendations?**

Again, I remain skeptical that our training will substantially improve the ability of smallholder farmers to improve livelihood through improved soil fertility management with purchased inputs due to lack of purchasing power. Alternatives such manure, wood ash, and charcoal are more viable alternatives at this point.

During your assignment, you collected the names and contact information of farmers or business people you trained. Please provide a list of them here, or as an attachment. This is essential in order for NCBA CLUSA to be able to follow-up on your assignment.

List of Contacts

– See Appendix 1.

Host Profile Data

1. **Did you obtain any data that supplements or corrects the data in the existing Host Profile? If so, please list it here.**

N/A

2. **Observations about the host organization (optional). Share your impressions of the host organization. NCBA CLUSA appreciates your assessment of the likelihood of the host organization's success in the future, their weaknesses and strengths, etc.**

While I had good relations with the staff of the host organization, Every Home for Christ Zambia, throughout my stay I was not thoroughly impressed with the organization, staffing, or professionalism of the organization. The single most important benefit of the host was their connection to the farming community in Katete, yet I did not find the EHC to have strong agronomic background, or deep connections to the communities they purported to serve. If the single purpose of utilizing EHC is to be able to work with farmers in the Katete region it may be valuable to keep them as a host organization and to encourage greater reform, but based on my assessment of the organization and of the main leader (Sampson Jiya), the organization appears to be largely self-serving and to be interested in any and all projects which may provide continued funding to their organization without regard to the communities they serve.

Recommendations to NCBA CLUSA (optional)

1. **NCBA CLUSA is very interested in your assessment of what should be done next to assist the host organization. Should NCBA CLUSA continue to send volunteers to this host organization? In what areas do you feel the hosts could use additional volunteer assistance? These recommendations will be confidential, and not shared with the host organization.**

Better training on agronomy, marketing, post harvesting handling etc. in order to more effectively work with and train farmers. It was not clear EHC staff had strong training in the essential knowledge sets and skills necessary to most effectively engage with farmers.

2. **NCBA CLUSA is also very interested in your recommendations on how the logistics of your assignment can be improved for future volunteers. Please include any detailed comments and/or recommendations concerning pre-departure briefing, in-country briefing, hosts, assignment logistics, or Program Coordinator here.**

My assessment of CLUSA as an organization was extremely positive. Virginia Bunker provided outstanding, timely, and excellent administrative leadership throughout the project from initial contact through the reporting stage. Alexander Hansingo was a gracious, positive, and well informed liaison who was essential throughout the process. No specific improvements could be found. The one thing I wanted to do but was not able was to live in one of the villages for a day or two to work with the farmers to get to know them better.

Appendix 1. **List of farmers and others trained – see scanned sign in sheets**

Name	male /female	Organization/Village

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NCBA CLUSA

Farmer to Farmer Sign In Sheet

Host Organization: EHC
Assignment: SOIL FERTILITY
Volunteer: RYAN HOTTLE

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	Edison Phiri	M	"	5-1-2016
2	Mulubenji Banda	F	"	—
3	Leya Phiri	F	"	—
4	Kosimasi Banda	M		
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USAID FROM THE AMERICAN PEOPLE

NCBA CLUSA

Farmer to Farmer Sign In Sheet

Host Organization: EHC
Assignment: SOIL FERTILITY
Volunteer: RYAN HUTTLE

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	Solobafi Phiri	M	0962293857	5-1-2016
2	Alisoni Phiri	M	0975702638	- -
3	Timothi Nyimi	M	0971991239	- ~~0971991239~~ -
4	Apito Musanga	M	-	
5	Shadrick Phiri	M	-	
6	Jakosi Banda	M		
7	Mudelanji Zulu	F	-	
8	Nyungu Banda	F		
9	Tisaine Mbewe	F	-	
10	Tidziwenji Banda	F		
11	Raphael Nyimi	M	-	
12	Losimary Zulu	F	-	
13	Blandina Banda	F	-	
14	Melesani Sakala	M	-	
15	Maliya Phiri	F		
16	Lusi Banda	F	-	
17	Unice Banda	F		
18	Tasila Banda	F	-	
19	Teni Nyele	F		5-1-2016
20	Pingilemi Banda	M	-	

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NCBA CLUSA

Farmer to Farmer Sign In Sheet

Host Organization: EHC
Assignment: SOIL MNGMT.
Volunteer:

No.	First and Last Name		Male/Female	Telephone #	Dates Attended
1	OFREA	ZULU	✓	0988260959	07/01/2016
2	ESSAYA	PHIRI	✓	0969196571	07/01/2016
3	WACIH	BANDA	✓		07/01/2016
4	TENIHAN	MWANZU	✓		07/01/2016
5	BENAD	PHIRI	✓		07/01/2016
6	KAYEN	TEMBO	✓		07/01/2016
7	FELISTURS	PHIRI	✓	0963230629	"
8	GRACE	NYIRENDA	✓		"
9	JENET	PHIRI	✓		"
10	NELIA	BANDA	✓		"
11	MARY	BANDA	✓	0974247555	"
12	CHAITINA	BANDA	✓		"
13	ESTER	PHIRI	✓		"
14	VELENIKA	PHIRI	✓		"
15	TILIFONIA	MWANZA	✓		"
16	STIVIN	BANDA	✓	0906098025065 7	"
17	JELEMAYA	SAKALA	✓		"
18	SOLOBAI	PHIRI	✓	0976170219	"
19	EDWARD	NJOBVU	✓		"
20	ELIDAH	ZULU	✓		"

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Farmer to Farmer Sign In Sheet

Host Organization: EHC
Assignment: SOIL FERTILITY
Volunteer:

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	ROSSYMARY [illegible]	~		07/01/2016
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NCBA CLUSA The National Cooperative Business Association • CLUSA International

Farmer to Farmer Sign In Sheet

Host Organization: EHC
Assignment: SOIL FERTILITY
Volunteer: RYAN HOTTLE

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	ALMOR BANDA	M	0968243003	08/01/16
2	SAMANI BANDA	M		08/01/16
3	AYENIELA PHIRI	M		08/01/16
4	ROZALIA PHIRI	F	0963518331	08/01/16
5	MSAMALIA PHIR	F	0968506092	08/06/16
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Farmer to Farmer Sign In Sheet

Host Organization: EHC
Assignment: SOIL FERTILITY
Volunteer: LYAW HOTTLE

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	GENALOZA PHIRI	F	097500357	08-01-2016
2	ROSEMARY ZULU	F		08-01-2016
3	ESENLY PHIRI	F		08-01-2016
4	SUSANE PHIRI	F		08-01 2016
5	BEIRICE PHIRI	F		08-01-2016
6	SOPHIA PHIRI	F		08-01-2016
7	ZILOSE BANDA	F		08-01-2016
8	TELIA PHIRI	F		08-01-2016
9	MUMANGE BANDA	F		08-01-2016
10	EMMANUEL MBEWE	M	0974586416	08th/01/2016
11	COSMAS TEMBO	M		08th/01/2016
12	FELIX MVULA	M	0964713696	08TH 01/016
13	BONSON ZULU	M	0974461791	08/01/016
14	PETER L. TEMBO	M		08-01-2016
15	NELSON J. MVULA	M	0976979106	08-10-16
16	MASAUSO DAKA	M	0966048643	08/01/16
17	BENEDICTA TEMBO	M		08/01/16
18	TRIFONIA BANDA.	F		08/01/16
19	MSONI BENEDICTO	M	0979107929	08/01/16
20	EDITH PHIRI	F		08/01/16

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Farmer to Farmer Sign In Sheet

Host Organization: EHC
Assignment: SOIL FERTILITY
Volunteer: RYAN HOTTLE

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	BORDWIN MWALE	M	0971894167	06/01/16
2	LEVYSON PHIRI	M	0965 754337	06/01/16
3	GRACE BANDA	F	—	06/01/16
4	FUNGAI MWANZA	F	—	06/01/16
5	ABETINA PHIRI	F	—	06/01/16
6	JOJINA DAMBUZI	F	0953685641	06/01/16
7	TINENENJI BANDA	F	—	06/01/16
8	BESNART ZULU	F	—	06/01/16
9	NAOMI BANDA	F	—	06/01/16
10	LICKSINA PHIRI	F	—	06/01/16
11	DORICA PHIRI	F	—	06/01/16
12	TIYANGANE BANDA	F	—	06/01/16
13	RUTH D. PHIRI	F	0965 095482	06/01/16
14	ASINELI NKHATA	F	—	06/01/16
15	NELSON PHIRI	M	—	06/01/16
16	PETER BSOKO	M	—	06/01/16
17	ACKIM BANDA	M	—	06/01/16
18	DRIVER MBEWE	M	—	06/01/16
19	ROBERT PHIRI	M	—	06/01/16
20	GELSHOM MWANZA	M	—	06/01/16

COMMUNITY ORIENTED DEVELOPMENT PROJECT (CODEP)

P.O. BOX 511317 ,CHIPATA . ZAMBIA Tel: 216 223671 Cell: 0977767263

E-mail: codepchip@yahoo.com

TRAINING REGISTER FOR FARMER TO FARMER TRAINING IN SOIL AND WATER CONSERVATION JANUARY 2016 AT COMMUNITY TRAINING CENTRE CHIPARAMBA.

~~DATE~~	NAME OF PARTICIPANT	NRC	LOCATION	PHONE NO.	SIGNATURE
1	Noah Zulu	310396/52/1	KAMUKANE V/G	0961023147	[illegible]
2	MATHIAS PHIRI	306841/52/1	MULONYENI	0965162798	M. PHIRI
3	Moses Phiri	173858/57/1	Kawendama	0977413070	[illegible]
4	DAVID MBEWE	225891/51/1	VWALA	0964716350	[illegible]
5	SHADRECK NYIREDA	584090/52/1.	MKANICE		[illegible]
6	FANELI MWANZA	143031/42/1	MULONYENI	0961421831	F. Mwanza
7	NIWAONA ZULU	347642/52/1	Vwala	0962291159	M. Zulu
8	ROBERT PHIRI	349485/67/1	ANDRASON	0965733620	R. Phiri
9	RICHARD LUNGU	155792/54/1	CHINTHOMA	096117111	[illegible]
10	HELSON SHANZI	106323/52/1	PEASANT FARM		[illegible]
11	KENNEDY MBULO	467186/52/1	KAMPHASA	0966937717	[illegible]
12	CHRISTOPHER NYIRENDA	418691/52/1	LEMIE		C. Nyirenda
13	Martha Mbewe	505357/52/1	Kapita	0966134408	[illegible]
14	ROYCE MBEWE	425294/11/1	YOHANE	0976828610	R. Mbewe
15	PRISCA Chileke	284494/61/1	Sub-Centre	0977612249	P. Chileke
16	RICHARD BANDA	283381/52/1	Thomo	096601453 8	R. Banda
17	Yvonne Chikoti	300211/16/1	Sub-centre	0968999563	[illegible]
18	catherine mbewe		Soweto		C. mbewe
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BOARDING PASS

DELTA

HOTTLE/RYAN

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F9UCEX

FLIGHT DL755 DATE 01JAN CLASS T MAIN ORIGIN COLUMBUS DESTINATION ATLANTA

OPERATED BY DELTA AIR LINES INC

DEPARTS 219P BRD TIME 139P

SEAT 34A ZONE 2

DEPARTURE GATE C55 **SUBJECT TO CHANGE**

BAGS 01

CMH22F339/GM

BOARDING PASS

HOTTLE/RYAN

FLIGHT DL755 DATE 01JAN

SEAT 34A ZONE 2

ORIGIN COLUMBUS

DESTINATION ATLANTA

OPERATED BY DELTA AIR LINES INC

BAGS 01

BOARDING PASS

DELTA

HOTTLE/RYAN

2 006 7700057727 0

F9UCEX

FLIGHT DL200 DATE 01JAN CLASS T MAIN ORIGIN ATLANTA DESTINATION JOHANNESBURG

OPERATED BY DELTA AIR LINES INC

DEPARTS 710P BRD TIME 615P

SEAT 48E ZONE 2

DEPARTURE GATE – SEE AIRPORT MONITORS

DOCS-OK

BCN ATL155

BAGS 01

CMH22F339/GM

BOARDING PASS

HOTTLE/RYAN

FLIGHT DL200 DATE 01JAN

SEAT 48E ZONE 2

ORIGIN ATLANTA

DESTINATION JOHANNESBURG

OPERATED BY DELTA AIR LINES INC

BCN ATL155

BAGS 01

DELTA

HOTTLE/RYAN

BOARDING PASS

F9UCEX

FLIGHT SA66 DATE 02JAN CLASS Y MAIN ORIGIN JOHANNESBURG DESTINATION LUSAKA

OPERATED BY S AFRICAN

DEPARTS 705P BRD TIME 620P

SEAT 17C

DEPARTURE GATE – SEE AIRPORT MONITORS

A8

FLT COUPON REQ/DOCS-OK

SA9

CMH22F339/GM

FOR HOTTLE/RYAN

	SEAT	CLASS	GATE
55	34A	MAIN	C55
219P	ZONE	02	CONFIRMED
352P	READY TO BOARD		
200	48E	MAIN	
710P	ZONE	02	CONFIRMED
530P	READY TO BOARD		
66	17C		
705P			CONFIRMED
900P	CHECK IN REQUIRED		

E SUBJECT TO CHANGE - SEE AIRPORT MONITORS*

Farmer-to-Farmer Program
Aflatoxin Management
Scope of Work

Host/Partner: Every Home for Christ

Beneficiary Organization: Every Home for Christ	**Location of Project:** Katete Eastern Province, Zambia
Primary Contact Person: Samson Jiya	**Date Project Started:** March 2015
Telephone: +260 0967785052;	**Type of Assignment:** Aflatoxin Management
Email:ehczambia@yahoo.com	**Dates of Assignment:** November 2015
Brief background on beneficiary organization: Every Home For Christ is an international nonprofit that supports smallholder farmers around the world. EHC Zambia operates in Katete District, Eastern Province with a network of approximately 6,000 smallholder farmers. They offer smallholder farmers training in conservation farming, input support, extension services, nutrition education, and environmental education. High aflatoxin levels are often found in Zambian peanuts. Unacceptable levels of aflatoxin have led to the blockage of most Zambian peanuts into lucrative South African and European markets. Most smallholder farmers are unaware of the need to reduce aflatoxin and the technology available on the market to assist in its reduction. The end result is peanuts that do not meet export standards and contribute to poor nutritional and cognitive development among children. This assignment will help EHC farmers learn how to reduce aflatoxin levels in their peanuts. Reducing aflatoxin will improve food production and quality. Adopting new technologies will also address vulnerability to diseases, particularly among women and children.	**Objectives of the Assignment:** • To educate smallholder farmers on the negative health impacts of high aflatoxin levels in peanuts and the subsequent need to reduce aflatoxin levels • To educate smallholder farmers on how high aflatoxin levels in peanuts negatively impact production • To equip farmers with techniques available on the market to test for and reduce aflatoxin infestation in peanuts • To train farmers in post-harvest handling techniques that will reduce post-harvest loss and aflatoxin levels

<table>
<tr><td colspan="2">Tasks to be carried out:
• Outline farmers’ expectations of the volunteer for the assignment duration
• Identify farmers’ practices which cause high aflatoxin levels
• Provide visual aids showing aflatoxin infested peanuts
• Train farmers on the importance of low aflatoxin levels for commercial sale and health
• Introduce technologies in processing to reduce aflatoxin levels to meet export standards</td></tr>
<tr><td>Expected number of persons to be trained (m/f):15/15</td><td>Required expertise of Volunteer:
Post Harvest Handling and storage specialist with experience in peanuts and aflatoxin management</td></tr>
</table>

NCBA CLUSA Farmer-to-Farmer Program
Katete, Zambia Aflatoxin Training
Every Home for Christ

Randy Shackelford

Volunteer Trip Report

ASSIGNMENT INFORMATION

1. YOUR NAME: RANDY SHACKELFORD
2. THE NAME OF THE HOST ORGANIZATION: EVERY HOME FOR CHRIST
3. THE DATES OF THE ASSIGNMENT: JANUARY 14, 2016 – FEBRUARY 23, 2016

RECOMMENDATIONS TO THE HOST ORGANIZATION (PLEASE PROVIDE A MINIMUM OF 3)

1.CONTINUE TO DISSEMINATE INFORMATION ON AFLATOXIN TO ALL FARMER GROUPS AND USE OTHER GATHERINGS TO REFRESH FARMERS OF THE IMPORTANCE OF PROPER GROUNDNUT DRYING AND STORAGE TECHNIQUES.

2.DISSEMINATE PHOTOGRAPHS OF GROUNDNUTS WITH THE TYPICAL ASPERGILLUS FUNGUS (WHICH PRODUCES AFLATOXIN) ON THEM. THIS WILL HELP DIFFERENTIATE THE TYPICAL LIGHT BROWN FUNGUS FROM OTHER DISCOLORATIONS SOMETIMES FOUND ON THE NUTS. ONE SAMPLE WAS TESTED WHICH HAD BLACK SPLOTCHES ON THE NUTS AND WAS BELIEVED TO BE AFLATOXIN. THE TEST INDICATED THE BLACK COLORATION WAS NOT DUE TO AFLATOXIN. MORE ACCURATELY VISUALLY IDENTIFYING THE ASPERGILLUS FUNGUS WILL RESULT IN FEWER GROUNDNUTS BEING DESTROYED AND MORE NUTS BEING USED.

3.ESTABLISH STANDARD PRACTICES WHICH HAVE CONSISTENTLY SHOWN RESULTED IN LOWER AFLATOXIN LEVELS AND ESTABLISH A "CERTIFIED GROUNDNUT GROWER" PROGRAM. BY VERIFYING THE PROGRAM IS ADHERED TO THE PROVEN TECHNIQUES WILL BE REPEATEDLY EMPHASIZED. THUS, PRODUCING GROUNDUTS WITH LOWER LEVELS OF AFLATOXIN AND PROVIDING A MARKETING EDGE TO BRING HIGHER PRICES TO THE FARMERS WHEN THEY SELL THEIR CROP.

4.ASSIST IN THE PRODUCTION AND THE SALES/DISTRIBUTION OF UNIVERSAL NUT SHELLERS.

[INSERT SPECIFIC RECOMMENDATIONS; I.E. AMONG ECONOMIC IMPACTS; ORGANIZATIONAL IMPACTS CAPACITY IMPACTS; OR ENVIRONMENTAL IMPACTS, FOR HOST ORGANIZATIONS, INCLUDING INSTRUCTIONS OR STRATEGIES FOR ACHIEVING THEM WHENEVER POSSIBLE.]

ACHIEVEMENT OF OBJECTIVES
LIST ASSIGNMENT OBJECTIVES FROM THE SCOPE OF WORK

1. TRAIN SMALLHOLDER VILLAGE FARMERS ABOUT AFLATOXIN ON GROUNDNUTS, METHODS TO REDUCE AFLATOXIN AND POST HARVEST HANDLING TECHNIQUES.

ASSESS YOUR SUCCESS IN FULFILLING THE OBJECTIVES.

The different groups trained were mostly comprised of farmers representing a group or cooperative whom were tasked with returning to their respective villages to train others. The interest which was displayed, the questions asked and the comments from farmers and the host organization indicate the training was successful. The Feed the Future aflatoxin infographic which was used was very beneficial to educate farmers to the risks and costs attributed to aflatoxin contamination. One farmer commented that "People captured the information and they are now aware what you do today will affect you later. We see a solution to what could be a damage to life." Other comments from host organization Every Home for Christ included, "The training was quite exhaustive", "Farmers really enjoyed the training" and "We will benefit from your leaving us with this resource material".

The different groups trained were mostly comprised of farmers representing a group or cooperative whom were tasked with returning to their respective villages to train others. The interest which was displayed, the questions asked and the comments from farmers and the host organization indicate the training was successful. The Feed the Future aflatoxin infographic which was used was very beneficial to educate farmers to the risks and costs attributed to aflatoxin contamination. One farmer commented that "People captured the information and they are now aware what you do today will affect you later. We see a solution to what could be a damage to life." Other comments from host organization Every Home for Christ included, "The training was quite exhaustive", "Farmers really enjoyed the training" and "We will benefit from your leaving us with this resource material".
In addition to the aflatoxin training, I demonstrated the Full Belly Project Universal Nut Sheller. No farmers were familiar with the UNS and there was great interest in procuring shellers by groups of farmers to increase the efficiency of shelling groundnuts. The UNS can shell a 50 kg bag in one hour versus three days when shelled by hand. There was detailed discussion on the cost sharing and how inexpensive the investment would be for each individual farmer to contribute towards the purchase of a UNS for the benefit of all cooperative members.

One village training session was attended by approximately 25 students and faculty from Katete College of Agricultural Marketing. A week later eleven of those students took two cabs to travel one hour away to Chipata where Jock Brandis and I lectured in more detail and I demonstrated the mReader aflatoxin test with students assisting. Afterwards, we treated the students to pizza before arranging their return trip to Katete. Comments I have received from students correspondence since then have included:
Moses Ndhlovu- "Am grateful to inform you that we had a wonderful test on aflatoxin in Field Crop Production (class) and I feel your information has really helped me to pass the course.
Enock Banda- "I would like to thank you for the knowledge impacted on me. Earlier today questions on aflatoxin came in our end of semester exams and I am more than confident I have passed."
Shean B Breezy- "I'd like you to involve me in your project of aflatoxin so that I may go and teach people in my village about the dangers of this aspergillus flavus." I forwarded links to more information to Shean.

I also conducted additional training on the mReader aflatoxin test device for lab technician Janet Zulu at the Msekera Agriculture Research Institute, donated a hand operated food processor to enable aflatoxin tests to be conducted in the field without electric current and delivered additional Neogen Reveal Q+ aflatoxin test strips for their laboratory.

Were there changes in the objectives during your assignment? If so, explain what the changes were and why they occurred. Did you work on objectives or in areas other than those specified in the Scope of Work? If so, explain what they were and why your work extended to those areas.

Key Results and Anticipated Impacts

1. Every Home for Christ had a wrap-up meeting at the conclusion of farmer training sessions. This format was quite impressive and served as the first planning session to implement the listed suggestions. All of the EHC team leaders contributed and there was robust feedback and conversation. Different team members accepted responsibility to shepherd the specific wrap-up session items to fruition. Since the suggestions were generated by the team members, the CLUSA coordinator and myself there was buy-in by the host organization and I expect all suggestions will be put into place.

What specific actions do you realistically hope to see the hosts take in implementing your recommendations?

2. Every Home for Christ should reap direct financial benefit from starting the Universal Nut Sheller enterprise. Also, I anticipate they will receive a small fee from administering their "certified groundnut grower" program. Once the program is established and their member farmers produce crops with lower aflatoxin levels, the prices received and their market share should increase. Once this occurs EHC should expect more farmers to enter their program and thus provide more revenue for the EHC organization.

How do you anticipate the economic well being (or income) of the host will improve as a result of implementing your recommendations?

During your assignment, you collected the names and contact information of farmers or business people you trained. Please provide a list of them here, or as an attachment. This is essential in order for NCBA CLUSA to be able to follow-up on your assignment.

List of Contacts

List of farmers and others trained.
– See Appendix 1. (50 women and 40 men were trained)

Host Profile Data

1. **Did you obtain any data that supplements or corrects the data in the existing Host Profile? If so, please list it here. No**

2. **Observations about the host organization (optional). Share your impressions of the host organization. NCBA CLUSA appreciates your assessment of the likelihood of the host organization's success in the future, their weaknesses and strengths, etc.**

There were from three to five EHC leaders at each village farmer training session. This dedication shown and the knowledge which the EHC leaders retained and repeated to others indicated to me there is a high likelihood that full benefit will be recognized to the smallholder farmers and their farmer cooperatives.

Recommendations to NCBA CLUSA (optional)

1. EHC would benefit by follow-up training with additional additional sessions to more farmers, instead of simply relying on the cooperative leaders who have already been trained accurately sharing all of the pertinent information with their fellow members. Additionally, sending a volunteer to help establish a successful nut sheller enterprise would be most beneficial.

NCBA CLUSA is very interested in your assessment of what should be done next to assist the host organization. Should NCBA CLUSA continue to send volunteers to this host organization? In what areas do you feel the hosts could use additional volunteer assistance? These recommendations will be confidential, and not shared with the host organization.

2. The wrap-up discussion and planning session which Every Home for Christ conducted at the end of the training sessions was an excellent exercise. I believe all assignments could benefit from similar sessions which include the host leaders, the CLUSA coordinator and the volunteer.

NCBA CLUSA is also very interested in your recommendations on how the logistics of your assignment can be improved for future volunteers. Having been on similar assignment previously, I found all information and logistics to be on target. Please include any detailed comments and/or recommendations concerning pre-departure briefing, in-country briefing, hosts, assignment logistics, or Program Coordinator here.

Appendix 1. List of farmers and others trained

Name	male /female	Organization/Village

See attached lists.

Farmer to Farmer Sign In Sheet

Host Organization: LHC
Assignment:
Volunteer: RANDY SHACKELFORD Randy Shackelford

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	PETROS PHIRI	M	0964415451	27/1/16
2	Njovu Edward	M		"
3	TASILA BANDA	F		"
4	felida Jere	F	0961152750	"
5	Sebelia Jere BANDA	F		"
6	BRANDINA BANDA	F		"
7	SHALIKENIKENI PHIRI	M		"
8	Elisani Salkeila.	M		"
9	Weluzank Soko	M		"
10	STIMA NGuni	M		"
11	STANLY SAKALA	M		"
12	ALISON PHIRI	M	0975702634	"
13	APTON ~~BANDA~~ MUNANZA	M		"
14	OLIPA BANDA	F		"
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NCBA CLUSA
The National Cooperative Business Association • CLUSA International

Farmer to Farmer Sign In Sheet

Host Organization: E/TC
Assignment:
Volunteer: RANDY SHACKELFORD Randy Shackelford

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	NDHLOVU MOSES	MALE	0960271670	22/01/16
2	BANDA RABBECA	FEMALE	0963266526	22/01/16
3	NDHlovu EVERLYNE	Female	0972935045	22/01/16
4	MATHEWS BANDA	MALE	0976713456	22/01/16
5	Mbewe Bwalya	female	0973755455	22/01/16
6	MWIZA MAPALA	Female	0963744231	22/01/16
7	Kondwani Simphando	male	0971613282	22/01/16
8	Yesya Sibale	Male	0966 144970	22/01/16
9	ENOCK Banda	Male	0976597493	22/01/16
10	SHEM ~~BANDA~~	male	0965457887	22/01/16
11	KAHATA CHAYEMBA	MALE	0977232773	22/01/16
12	DICKSON SAKALA	MALE	0972286621	22/01/16
13	SAMSON MYAYA	MALE	0966-656647	22/01/2016
14	LYFORD PHIRI	MALE	0979-273761	22/01/2016
15	MULENGA SWAI	female	0976 860079	22/01/2016
16	Dorica Soko	female	0974 717262	22/01/2016
17	Sophrasia Sakala	female	0977679695	22/01/2016
18	Chiboko Katongo	male	0963633301	22/01/2016
19	Ruth Pongo Pongo	Female	0978-503208	22/01/2016
20	Rabecca Sakala	female	0969428455	22/01/2016

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Farmer to Farmer Sign In Sheet

Host Organization: EHC
Assignment:
Volunteer: RANDY SHACKELFORD Randy Shackelford

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	AGNESS NJOBVU	F		20/01/2016
2	ENATA MBEWE	F		" " "
3	GETRUDE PHIRI	F		"
4	LEKISINA MWALE	F		"
5	CLERA MBEWE	F		"
6	DOROTHY PHIRI	F		"
7	FLORENCE PHIRI	F		"
8	RUTH PHIRI	F		"
9	GEOGINA NBAMBAZE	F		"
10	GRACE NYIRENDA	F		"
11	FELISTUS PHIRI	F		"
12	SOLOBAT PHIRI	M	0976170219	"
13	TIYANGANE BANDA	F		20/01/2016
14	PHIRI ROBERT	M		20/01/2016
15	ALELIADO NJOBVU	M		20/01/2016
16	LEVYSON PHIRI	M		20/01/2016
17	LEYA BANDA	F		20/01/2016
18				20/01/2016
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NICBA CLUSA

The National Cooperative Business Association • CLUSA International

Farmer to Farmer Sign In Sheet

Host Organization: RHC
Assignment:
Volunteer: RANDY SHACKELFORD Randy Shackelford.

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	SOLOBAI Phiri	M		21/01/2016
2	Tenthan Mwakanga	M		21/01/2016
3	Genalozy Phiri	F	0975000357	21/01/2016
4	Klateh Banda	M	0965664392	21/01/2016.
5	MISOZI Banda	F		21/01/2016
6	JOYCE Phiri	F		21/01/2016
7	ELITA ZULU	F		21/01/2016
8	ROSEMARY ZULU	F		21/01/2016
9	GRACE DHIRI	F		21/01/2016
10	VERIA MVULA	F	0966708771	21/01/2016
11	ANNA SAKALA	F	0971972666	21/01/2016
12	MAVUTO MVULA	F	0961200982	21/01/2016
13	SUSA BANDA.	F		21/01/2016
14	Matrida Tembo	F		21/01/2016
15	Veronica Phiri	F		21/01/2016
16	Estelle Phiri	F.		21/01/2016.
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21.	Idah Nkhata	~~mo~~ female	0960272003	22/01/2016
22.	Alex Katongo	male	0965999755	22/01/2016
23.	Misheck Banda.	Male	0971759597	22/01/2016
24.	LEONARD MBEWE	male	0976991966	22/01/2016

Co-operative

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NCBA CLUSA The National Cooperative Business Association • CLUSA International

Farmer to Farmer Sign In Sheet

Host Organization:
Assignment:
Volunteer:

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	ALIMON BANDA.	M.		25/01/2016
2	SOLOBATY PHIRI.	M.		25/01/2016
3	EDWARD NJOBVU.	M.		25/01/2016
4	PETROS PHIRI.	M.		25/01/2016
5	GRACE NYIRENDA.	F.		" " "
6	ROZARIA PHIRI.	F.		" " "
7	GENATROZA BANDA.	F.		" " "
8	PAUL PHIRI.	M.		" " "
9	FELISTAS PHIRI	F		" " "
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NCBA CLUSA The National Cooperative Business Association • CLUSA's Association

Farmer to Farmer Sign In Sheet

Host Organization: EVERY HOME FOR CHRIST
Assignment: 19/1/16
Volunteer: RANDY SHACKELFORD Randy Shackelford

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	ROZALIA PHIRI	F	0963518331	19/1/16
2	ELESIYA MBEWE	F		"
3	ROZIMELI PHIRI	F		"
4	TILIFONYA BANDA	F		"
5	RUTH PHIRI	F		"
6	ZELIPA BANDA	F		"
7	MALATA ZULU	M		"
8	ALIMON BANDA	M	0968243003	"
9	COSMAS TEMBO	M		
10	PETER PHIRI	M		
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DELTA

BOARDING PASS

SHACKELFORD/RANDY

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HMF9RN

LLWB69US

FLIGHT	DATE	CLASS	ORIGIN	DEPARTS	SEAT
DL5091	14JAN	L	WILMINGTON	244P	14B
OPERATED BY		MAIN	DESTINATION	BRD TIME	ZONE 2
EXPRESSJET DBA DELTA CNX			ATLANTA	219P	

DEPARTURE GATE — SEE AIRPORT MONITORS

272

BAGS 02

ILM23E218/LL

BOARDING PASS

SHACKELFORD/RANDY

FLIGHT	DATE	SEAT
DL5091	14JAN	14B
ORIGIN		ZONE 2
WILMINGTON		

DESTINATION

ATLANTA

OPERATED BY EXPRESSJET DBA DELTA C

A DELTA CONNECTION CARRIER

BAGS 02

DELTA

BOARDING PASS

SHACKELFORD/RANDY

2 006 7737241873 6

HMF9RN

LLWB69US

FLIGHT	DATE	CLASS	ORIGIN	DEPARTS	SEAT
DL200	14JAN	L	ATLANTA	720P	35H
OPERATED BY		MAIN	DESTINATION	BRD TIME	ZONE 2
DELTA AIR LINES INC			JOHANNESBURG	625P	

DEPARTURE GATE — SEE AIRPORT MONITORS

DOCS-OK

BCN ATL125

BAGS 02

ILM23E218/LL

BOARDING PASS

SHACKELFORD/RANDY

FLIGHT	DATE	SEAT
DL200	14JAN	35H
ORIGIN		ZONE 2
ATLANTA		

DESTINATION

JOHANNESBURG

OPERATED BY DELTA AIR LINES INC

BCN ATL125

BAGS 02

BOARDING PASS

SHACKELFORD/RANDY

FLIGHT	DATE	SEAT
SA66	15JAN	27D
ORIGIN		
JOHANNESBURG		

DESTINATION

CLASS

OPERATED BY S AFRICAN

SA0066/15JAN/JNB-LUN

SA9

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

CLASS: Y/T SEAT: 27C

ECONOMY CLASS

SHACKELFORD/RANDY

SA 65 09FEB

FROM: LUSAKA/LUN

TO: JOHANNESBURG/J

DEPARTURE TIME: 15:55

ETKT 40067737241873

SEQ NO: 34

2/43KG

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

CLASS: Y/Y SEAT: 48C

SHACKELFORD/RANDY

DL 201 09FEB

FROM: JOHANNESBURG/J

TO: ATLANTA/ATL

DEPARTURE TIME: 19:55

ETKT 10067737241874

SEQ NO: 57

2/43KG

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

CLASS: Y/Y SEAT: 5A

SHACKELFORD/RANDY

DL 5245 10FEB

FROM: ATLANTA/ATL

TO: WILMINGTON/ILM

DEPARTURE TIME: 09:13

ETKT 20067737241874

SEQ NO:

2/43KG

Farmer-to-Farmer Program
Aflatoxin Management along the Peanut Value Chain
Scope of Work

Host/Partner: Community Markets for Conservation (COMACO) and Community Oriented Development Program (CODEP)

Beneficiary Organization: COMACO and CODEP	**Location of Project:** Chipata Eastern Province, Zambia
Primary Contact Person at COMACO: David Sakala **Email:** dsakala@itswild.org **Tel:** +260 978 084778	**Date Project Started:** March 2015
Primary Contact Person at CODEP: Mr. Joseph Mwale, Program Director **Email:** copwat@yahoo.com **Tel:** +26 0 97 7 767263	**Type of Assignment:** Aflatoxin Management along the Peanut Value Chain **Dates of Assignment:** January/February 2016
Brief background on beneficiary organization: COMACO is a Zambian company that provides marketing services, trade benefits and extension support to smallholder farmers to help them adopt conservation farming practices that promote natural resource conservation and better quality of life. Founded in 2003 with a staff of 15, COMACO now employs 217 people that support smallholder farmers, including peanut farmers, throughout the Luangwa Valley of Zambia. Chipata District Farmers Association is a Non-Governmental Farmers Association with 2,000 registered farmers, most of whom are small-scale farmers. The Association's main focus in the Eastern Province is offering training to farmers in agriculture related subjects such as poultry, piggery, crop husbandry, and agribusiness. It also focuses on poverty reduction and land access for disadvantaged members of the community. High aflatoxin levels are often found in Zambian peanuts. Unacceptable levels of aflatoxin have led to the blockage of most Zambian peanuts into lucrative South African and European markets, and unsafe levels also have negative health impacts particularly for children and the elderly. Most stakeholders are unaware of the major aflatoxin contamination points in peanuts and it is assumed that contamination happens on the farm due to smallholder farmers' lack of education and	**Objectives of the Assignment:** • Determine the appropriate level of ionized air needed to reverse aflatoxin contamination in peanuts through testing ionized air method of packaging peanuts. • Train packagers and wholesalers on ionized air treatment technology. • Identify a new local manufacturing partner to produce the universal nut sheller and ionized air equipment. • Improve farmers' organizational strategic planning and marketing strategies, particularly in regard to "aflatoxin safe peanuts."

<table>
<tr><td>understanding of aflatoxin and poor post-harvest handling techniques.

When the first two aflatoxin management assignments for this project were conducted, the volunteers tested numerous on-farm samples and found that aflatoxin levels actually met European export standards. Testing of samples in warehouses and off-the-shelf samples of peanut butter came back with much higher results that did not meet export standards, indicating that aflatoxin contamination happens further along the value chain and not on the farms.</td><td></td></tr>
<tr><td colspan="2">Tasks to be carried out:
• Test ionized air dosage levels in packaged peanuts to determine the appropriate level of ionized air needed to reverse aflatoxin contamination in peanuts.
• Introduce technologies in processing to reduce/eliminate aflatoxin levels to meet export standards, including the universal nut sheller, ionized air, and the mReader.
• Identify a new local manufacturing partner to produce the universal nut sheller and ionized air equipment
• Train farmers in strategic planning and marketing strategies, particularly in regard to “aflatoxin safe” peanut products.
• If possible, meet with the Zambia Mission to discuss a strategy to eliminate aflatoxin in Zambian peanuts and establish an “aflatoxin safe certification” that will revitalize and grow the domestic market as well as export markets.</td></tr>
<tr><td>Expected number of persons to be trained (m/f):
20/10</td><td>Required expertise of Volunteer:
Aflatoxin management and value chain specialist for peanuts</td></tr>
</table>

NCBA CLUSA Farmer-to-Farmer Program
[Aflatoxin Management – Phase II]

[Jock Brandis]

Volunteer Trip Report

Assignment Information

1. Your name: Jock Brandis
2. The name of the host organization: CODEP (OBJECTIVES 1 AND 2) COMACO (OBJECTIVE 3)
3. The dates of the assignment: Jan. 26, Feb 11, 2016

Recommendations to the Host Organization (please provide a minimum of 3)
[Insert specific recommendations; i.e. among Economic Impacts; Organizational Impacts Capacity Impacts; or Environmental Impacts, for host organizations, including instructions or strategies for achieving them whenever possible.]

1. Who is best placed to support co-ops?
The biggest issue here is that CODEP, one of my host organizations, in not really part of the 'chain of command' in the farm co-op structure. They are a NGO that gets project funding to support economic and health initiatives in the community. A saw an organizational chart that traces each village co-op up to the Dept. of Ag. support branch and CODEP isn't part of it. So getting the local co-ops to act more like co-ops isn't part of its day to day function. It will only do it if someone gives it money to do so. They are the organization that seems to be working hardest to educate farmers on better practice, so maybe they are the only ones prepared to do the community organizing to do what I describe later in this report. But I believe that going directly to the Ministry and having the discussion on Aflatoxin Safe Certification so that concept goes from top down rather than coming from a outside support organization that will only do it if it is funded. In the end, there will be no improvement in groundnut economics without dealing with the glaring problem of food safety. Before we go forward with any food safety program, we have to identify which organizing entity is best placed to make it a priority, preferably with funding they already receive. So this recommendation in not necessarily to CODEP. It simply questions whether CODEP are the best placed people to do the job.

2. Simple steps to increase farm efficiency.
Once that is determined, the potential economic impact for small farmers is enormous. Climate change is a fact of life in Southern Africa and none of it is good news for small farmers. But if history is any indicator, the climate future may well deal Eastern Zambia a gentler blow than its surrounding regions and countries. This would create market

potential. But not much is going to change if the trader cartels are the only ones to benefit from this. So using the co-op structure to break the hold of the cartels is essential to boost individual farm profits. And with regional food shortages in the future, better profit will encourage farmers to increase their plantings. If they have the simple hand tools to let it happen.
Farmers who work standing up, rather than bending over get a lot more done. Simple stand up seed planters can shrink planting from weeks to days. The sooner and the larger the planting is, the more likely the plants will mature before the drought returns. And a simple stand-up shovel, rake and hoe would be big steps forward. They were the basis of the agricultural leap forward in Europe and the Americas in the 1850s.
Insurance water. A 2 week gap in moisture can turn a potential bumper crop into a disaster. British Engineers Without Borders literally wrote the book on hand drilled ag. wells and their ideas fit well with the shared cost approach that actually functioning co-ops could offer.

My father was a farm co-op founder and organizer in rural Canada and I have seen how quickly a committed group can improve the economics if the product demand is there. And it definitely is there.

3. As described below, use of ozone to sterilize food is an idea whose time has come.
My other host organization was CAMACO, who had not asked for my input but were eager to co-operate when the possibility of an aflatoxin cleansing technology was described. CAMACO is a very progressive organization, dedicated using the free market to promote environmental responsibility. I believe that Full Belly has learned a lot from its first foray into actual field aflatoxin abatement. I believe that funding a project that lets us turn CAMACO's un-exportable product into high demand in South Africa is a real possibility. Once lessons are learned and they become the demonstration model, I believe that the world would beat a path to their door.

Achievement of Objectives

1. List assignment objectives from the Scope of Work

1. Set up Chipata entrepreneurs to manufacture the Full Belly Universal Nut-sheller.
2. Meet with Eastern Zambia farmers co-ops to discuss the possibility of creating an 'Aflatoxin Safe Groundnut' certification system (marketing).
3. Test a prototype device for cleansing groundnuts of aflatoxin using ozone.

2. Assess your success in fulfilling the objectives.

Although it was a brief trip, I was able to address all three items in my scope of work.

1. Re-establish a manufacturer for the Full Belly hand operated nut sheller.
Value added in the village is a long established principle to allow farmers to get more profit from the crops they produce. It's often noted that the farmer only gets one cent from a $3.00 box of corn flakes. In the case of groundnuts, shelled nuts return considerably more profit than nuts in the shell, but hand shelling is a tedious and painful job. A mechanical nut sheller speeds up

shelling by 60x. Shelling is so fast that one machine will serve up to 20 farmers, so the individual part of the shared cost is very affordable.

Zasaka, a non-profit based in Chipata had originally started to manufacture. But just as recent CLUSA trainings had created great interest in the sheller, and generated firm orders, Zasaka decided to get out of manufacturing. So I travelled to Chipata with a new 'factory-in-a-box' and detailed 'how to' instructions. Alex Hansingo introduced Randy Shackleford and I to three farmers who were excited by the prospect that sheller manufacturing could be an excellent income generator during the dry season, presumably the season when shellers would come into demand. And I met Richard, an English ex-pat with an impressive metal fabricating shop who would be easily capable of producing the metal parts needed for each machine.
We went shopping for the correct materials and then watched quietly while the men followed the instructions and made their first machine. The idea of a precision machine made mostly of poured concrete was totally foreign to them and they were so amazed at their own success that they spent almost three hours staring at the final product. I have no doubt that the project is in good hands.

2. Considering the Possibility of Creating an 'Aflatoxin Safe Groundnut Certification.'

This was my second of 2 trips to Chipata funded through CLUSA. The long term plan was to find a way to create better economics for the many small peanut farmers, mostly women, in Eastern Zambia.
The main reason for depressed prices and profits at the farm gate was the poor quality of the product, when it finally got to the end user. The quality was so bad that most export markets had been shut down. The main issue was a fungus which produced aflatoxin, an extremely toxic substance.
On our first trip we had determined that the farmers were producing a clean product. The average of 3 ppb of aflatoxin would allow these nuts to be exported and get a good price. The problem arose with the traders who tended to buy up and horde the product, hoping to manipulate the prices. This often resulted in nuts reaching their final customer when they were 2 or 3 years old. Poor and excessive storage let the aflatoxin develop. At that point, export was no longer an option and even in Zambia, the word was out that groundnuts were an unsafe food.

Alex Hansingo arranged a meeting of representatives of about 25 local farm co-ops. And I brought along Samson Chilembo, a man from Chipata who is in the import/export business to advise us on how his end of the process might work. The first thing I did was let the attendees educate me on the business of groundnuts. It became immediately obvious that these groups were co-ops in name only. Each farmer was totally on his own when dealing with the wholesaler cartel which had set up a system where each village was visited by only one buyer who offered only one low price.
The first point I made was that if prices were to go up, groundnuts had to be treated more like eggs and less like gravel. Groundnuts are more perishable than most people think and they needed to move quickly to the end user in order to get the best price. And the end user was only going to pay a good price if he knew where the nuts came from, and most important, how old they were. An anonymous bag mixed in with known quality nuts could cause a lot of problems. We agreed that the best way to make this happen was for the co-ops to sell the nuts directly to the foreign buyers and then arrange shipping.

Key to all of this is that each bag had to be identified with a number or bar code so that the buyer could confirm the history of the product. With cell phones in the same percentage of homes in Africa as we have in America, the whole system could be easily set up. In fact, every co-op

representative at our meeting had a cell phone that they used for texting and banking. If individual bag tracking was cell phone based, a central server would be needed to issue random numbers which could be tracked. If, on the other hand, it were smart phone based, it would simply be a matter of training one person in each co-op how to log in each bag via an app that was probably on the phone at purchase. No server or programming needed.

But we all agreed that there would be a bit of a balancing act involved. It could be a disaster if the farmers turned down the local traders low prices on the assumption that this co-op based program had buyers ready and waiting at S. Africa. It was agreed that a proper funding would be needed to first survey South African and Botswana markets to confirm that there was a market for a safe product.

3. Testing a prototype system for cleansing groundnuts of aflatoxin using ozone.

This was the 'wing and a prayer' part of the trip. For almost 50 years, laboratory testing had demonstrated that gaseous ozone could destroy all fungus, insect eggs and aflatoxin in groundnuts. It's an FDA approved technology. Ozone is produced in the device and has a half life of 20 minutes before becoming atmospheric oxygen again. Commercial operations in the US will come to your farm and do it, but no one has tried it and developing country.
So it was optimistic to assume that a prototype costing $1,000 would slay the aflatoxin dragon that affects more than 4 billion people in the world.

We did our testing in the COMACO factory in Chipata where peanut butter was being produced. Our previous trip showed us that the toxin level in their 'It's Wild' product was too high. We had problems with our ozone generator but they were solved. The main problem was that the mReader supplied by Mobil Assay to test the aflatoxin levels was incorrectly calibrated. We thought we were having no effect on the toxin, where in fact, the machine was 'maxed out' at a low concentration and could not read the full scale. However, having actually gone through all the steps in a real commercial situation gave us an immense amount of knowledge on how to do it properly on our next attempt.

Were there changes in the objectives during your assignment? If so, explain what the changes were and why they occurred. Did you work on objectives or in areas other than those specified in the Scope of Work? If so, explain what they were and why your work extended to those areas.

There were no changes.

Key Results and Anticipated Impacts

1. **What specific actions do you realistically hope to see the hosts take in implementing your recommendations.**

   #1 We believe that the team of nut sheller builders need to work closely with CODEP. On my previous trip, demonstrations of the machine created huge interest and several firm orders. Harvest season is fast upon us and CODEP should link the builders with those interested and committed villages.

   #2 Farm co-ops need to start acting like farm co-ops. And there is no greater need for that than when the crop is sold. The current drought has elevated the price of all

commodities, but as things stand, every bit of that extra money goes to the traders. Either the traders have to offer a uniform better price or they should be by-passed.

2. **How do you anticipate the economic well being (or income) of the host will improve as a result of implementing your recommendations?**
   The three central aspects of my visit were:

   - Increased efficiency in peanut shelling will let farmers add value to their peanut crop. By having local farmers build the shelling technology for other local farmers, I believe that the problems generally created by importing products, quality control, fair price and delivery time will be avoided.
   - It is a universal principle that improved product quality encourages better pricing. The idea of getting away from a toxic, anonymous product, thereby opening the possibility of returning to the export market can have no downsides.
   - Co-ops have to start acting like co-ops when it comes to standing up to the traders who set up individual farms for a no option worst price. Enough said on that.

During your assignment, you collected the names and contact information of farmers or business people you trained. Please provide a list of them here, or as an attachment. This is essential in order for NCBA CLUSA to be able to follow-up on your assignment.

List of Contacts

List of farmers and others trained

– See Appendix 1.
Total: 26 beneficiaries participated in trainings (13 men and 13 women).

Host Profile Data

1. **Did you obtain any data that supplements or corrects the data in the existing Host Profile? If so, please list it here.**
   I did not realize that CODEP was a NGO that did a very wide range of funded projects other than Ag. Most of their efforts now seem to be related to HIV/AIDS.

2. **Observations about the host organization (optional). Share your impressions of the host organization. NCBA CLUSA appreciates your assessment of the likelihood of the host organization's success in the future, their weaknesses and strengths, etc.**
   Frankly, I'm not too impressed by CODEP. There's a lot of sitting around. The farmers co-ops, however, have their own structure that is directly supported by a

department with in the Ministry of Agriculture. I believe that if CODEP is funded to implement the 'Aflatoxin Safe Certification' that it will not have much success. However, COMACO is a progressive operation, very keen on improving the quality of its product and hoping to get into the export market. There is a great opportunity if a shared project could be arranged with them.

Recommendations to NCBA CLUSA (optional)

1. **NCBA CLUSA is very interested in your assessment of what should be done next to assist the host organization. Should NCBA CLUSA continue to send volunteers to this host organization? In what areas do you feel the hosts could use additional volunteer assistance? These recommendations will be confidential, and not shared with the host organization.**
   I believe that this is a moot point right now because NCBA CLUSA is wrapping up its operations in Zambia.

2. **NCBA CLUSA is also very interested in your recommendations on how the logistics of your assignment can be improved for future volunteers. Please include any detailed comments and/or recommendations concerning pre-departure briefing, in-country briefing, hosts, assignment logistics, or Program Coordinator here.**
   As before, I was wonderfully supported. More important to me, The Full Belly Project gets to use the F2F program as a platform to test its new technologies and ideas. And I cannot imagine better Head Office to work with. It is a total delight.

Appendix 1. **List of farmers and others trained**

Name	male /female	Organization/Village

See attached lists.

COOPERATIVE / MARKETING TRAINING
CODEP 5TH FEBUARY 2016

No	NAME OF FARMER	NRC	LOCATION	PHONE No	SIGNATURE
1	Ngoma Mwale	426017/52/1	Nkhunda	0966547803	[illegible]
2	Yvonne Ngoma	355973/52/1	Vwala	0966012241	Ngoma
3	Faneli Nawanza	143031/42/1	Malonyeni	0961481831	F. Nawanza
4	Florence Kapembwa	216706/17/1	Mphindila	0961305964	F. Kapembwa
5.	Aaron Malonda	497020/52/1	Nkhunda	0962852319	[illegible]
6.	Mikala Banda	297712/52/1	Simion	—	M. Banda.
7	Jonathan Sakala	534851/52/1	Vwala	—	J. Sakala
8	Acikim Phiri	524924/52/1	Chiduli	0962172163	[illegible]
9	Getrude Ngoma	287872/52/1	Chimala	0965582652	[illegible]
10	Beatrice Banda		Mkanyile	0965106821	B. Banda
11	Alice Banda		Mphindila	— —	A. Banda
12.	Canicius Chikambwe	203094/74/1	Sub-Centre	0968803911	[illegible]
18	Jane Nalungwe	533920/52/1	Vwala V	0963525099	[illegible]
19	Lottie E. Mwale	357013/52/1	Chiweza	0963803546	E. Mwale
20	Justine Mwanza	477997/52/1	K. Kalinga	0969198621	[illegible]
21	Robert C. Phiri	329485/67/1	Andrason	0965733620	[illegible]
22	Nelson Shanzi	106323/52/1	Basant Farms		Shanzi
23	Mathias Phiri	346841/52/1	Mulonyeni	0965162798	[illegible]
24	Ginta Nkhoma		Chiweza	0953237760	G. Nkhoma
25.	Christine Banda	—	Simion		C. Banda
26	Chazingwa Phiri	422626/52/1	Pezzt FM	0962446297	C. Phiri
27	David Mbewe	225891/51/1	Vwala	0964716350	[illegible]
28	Abiless Phiri	173858/51/1	Kaungandama	0974130770	A. P.
29	Faides Mwale	539995/52/1	Labani	0975108868	F. Mwale
30	Aubrey Banda	280093/51/1	Sub-Centre	0973100888	[illegible]
31	Peace Chileze		"	0962673113	Chileze

DELTA TSA PRECHK

BOARDING

BRANDIS/JOOSTBRENDER 2 006 774582

F3C5P8

FLIGHT	DATE	CLASS	ORIGIN
KL622	26JAN		ATLANTA

OPERATED BY — DESTINATION

KLM ROYAL DUTCH AIRLINES — AMSTERDAM

DEPARTURE GATE — SEE AIR

DOCS-OK

BCN

ATL136

ANDIS/JOOSTBRENDER

KLM Royal Dutch Airlines

23

USED. CHECK MONITORS

AT:	FROM:		TO:		CLASS:	SEQ:
3B	AMSTERDAM	AMS	NAIROBI	NBO1C	M ECONOMY	0156
OG	NAIROBI	NBO1A	LILONGWE	LLW	M ECONOMY	0016

AFTER BOARDING CL

CABIN Y SEAT 28C

ES 30 MIN.

MAIN CABIN

BRANDIS/JOOST BREN

DL 75 11FEB

FROM: AMSTERDAM/AMS

TO: ATLANTA/ATL

DEPARTURE TIME: 13:00

Kenya Airways

SECURITY NO: 0033

ETKT 006774582255503

AFTER BOARDING CL

CABIN M SEAT 39J

ECONOMY

BRANDIS/JOOST BREN

KL 566 10FEB

FROM: NAIROBI/NBO

TO: AMSTERDAM/AMS

DEPARTURE TIME: 22:30

Kenya Airways

SECURITY NO: 0093

ETKT 006774582255502

ING PASS

.5822554 0

5P8

SEAT 6A

DEPARTS 626P

ZONE 2

RD TIME 601P

12

ILM22EE32/OS

BOARDING PASS

BRANDIS/JOOSTBRENDER

SEAT 6A

ZONE 2

FLIGHT KL7257 DATE 26JAN

ORIGIN WILMINGTON

DESTINATION ATLANTA

OPERATED BY EXPRESSJET DBA DELTA C

DL5239/26JAN/ILM-ATL

Farmer-to-Farmer Program
Value Added Activities for Peanuts
Scope of Work

Host/Partner: Every Home for Christ

Beneficiary Organization: Every Home for Christ	**Location of Project:** Katete Eastern Province, Zambia
Primary Contact Person: Samson Jiya	**Date Project Started:** March 2015
Telephone: +260 0967785052;	**Type of Assignment:** Value addition and processing
Email: ehczambia@yahoo.com	**Dates of Assignment:** November 2015
Brief background on beneficiary organization: Every Home For Christ is an international nonprofit that supports smallholder farmers around the world. EHC Zambia operates in Katete District, Eastern Province with a network of approximately 6,000 smallholder farmers. They offer smallholder farmers training in conservation farming, input support, extension services, nutrition education, and environmental education. For over 20 years, profit margins from peanut production have been low due to poor yields and inability to store peanuts properly in order to sell them when demand has risen. By creating awareness of profitability by value adding and market opportunities, smallholder famers can use the local market for processed products to maximize profits on a portion of their harvest to address immediate cash flow needs. By creating better storage and value addition processing, smallholder famers can use the local market to maximize profits on a portion of their harvest to address immediate cash flow needs, giving them the capacity to store part of the harvest and sell at an off season premium price to increase their income.	**Objectives of the Assignment:** • To create awareness of market opportunities for value addition and processing of peanuts in order to maximize farmers' profits. • To train farmers in value added activities including peanut roasting and peanut butter processing • To train farmers in improved storage methods

<table>
<tr><td colspan="2">Tasks to be carried out:
• Outline farmers’ expectations of the volunteer for the assignment duration
• Identify market potential and opportunities in value added activities
• Provide training in value added activities and processing for peanuts, such as roasting and peanut butter production
• Demonstrate improved storage methods</td></tr>
<tr><td>Expected number of persons to be trained (m/f): 15/15</td><td>Required expertise of Volunteer:
Expert in peanut roasting and peanut butter processing</td></tr>
</table>

NCBA CLUSA Farmer-to-Farmer Program
Value Added Activities for Peanuts

Steven W. Laible

Volunteer Trip Report
February 25, 2016

Assignment Information

1. Volunteer Name: Steven W. Laible
2. Host (Beneficiary) Organization Name: Every Home for Christ (EHC), Katete
3. Dates of Assignment: February 9 to 23, 2016

Recommendations to Host Organization

1. Awareness of Market Opportunities – Reviewed and considered following:
    - Local (Nutrition, Snack, Flavors and Peanut Butter)
    - Regional (Bulk Nutrition or Snack Oriented Customers)
    - National (Quality, Sort and Select)
    - International (Sponsors and Fair Trade)

During the initial meeting with representatives of EHC it was determined that peanuts are currently used for consumption and sale as a commodity. The idea of exploring other market opportunities would be a new concept to the farmers served by EHC in Katete. It was determined that the focus of the training would be on local market opportunities and the use of peanuts as a snack food. Due to lack of roasting equipment, fuel or energy source, packaging and grinders the production of peanut butter was determined to be a limited opportunity with too many challenges.

Recommendation: Focus on developing skill sets related to proper storage, grade and select procedures, developing roasting skills for consistent quality, and focusing on local markets for snack nuts.

2. Pre-harvest Value Added – Reviewed and considered following:

- Self-help savings and seed bank programs
- Shared labor saving devices: Lifter
- Shared growing and production data

It was determined that EHC is working with local communities to establish self- help groups and saving clubs. It did not appear that were any collective seed purchasing programs, shared equipment programs or farm records program with data sharing goals. Farm records related to best farm practices, cost of operations and results from operations (productivity and yields) appear to be informal.

Recommendation: Focus on developing seed purchasing program to improve the availability of quality seed. Consider establishing working agreements for the common or shared ownership of labor saving devices. Consider training programs related to maintaining and sharing operating records.

3. Harvest Value Added

- Moisture control: Drying (less than 10%)
- Shared labor saving devices: Stripping peanuts
- Grading and selecting
- Batch control
- Aflatoxin testing

It was determined that the farmers have a good understanding of the importance of moisture control and the relationship to the presence of Aflatoxin. There does not appear to be any precedent for the collective ownership or sharing of equipment. The training included a segment on the benefits of selecting and grading peanuts that are destined for sale to external customers and the importance of maintaining control over batches of peanuts. The possibility of testing for Aflatoxin was discussed, but there does not appear to be a program for voluntary testing. The possibility of testing for Aflatoxin at the individual farmer level does not seem practical due to cost and logistics.

Recommendation: Continue to focus on proper drying procedures. Introduce the concept of grading/selecting and batch control as a next step in creating a market for snack nuts. Continue to monitor any developments in the Aflatoxin testing program.

4. Post Harvest

- Handling
- Storage
- Roasting: Equipment, roaster, timer, thermometer
- Peanut Butter Processing: Equipment
- Snack Peanut Strategy

There appears to be good awareness of the importance of proper handling and storage of peanuts after harvest. Roasting is mostly done in small batches on an open fire without benefit of equipment for maintaining a consistent size of batch (scale) for temperature control (thermometer) or the roasting time (timer clock). There did not seem to be an awareness of the importance of consistency and quality in preparing roasted peanuts for use as an ingredient in peanut butter or for sale as a snack nut to external customers. For a variety of reasons (no roasting or peanut butter processing equipment and an already competitive market for commercial peanut butter) the pursuit of a peanut butter strategy does not seem like a good idea. There does, however, appear to be a market opportunity for the processing and marketing of a snack nut for sale in the local area.

Picture: Example of marketing snack nuts for local market in Cameroon. See Appendix B.

Recommendation: Focus on developing skills to achieve consistent peanut roasting process. Consider identifying snack nuts as a product. Develop a business plan identifying costs of production and suggested selling price for different sizes and packages of product. Develop a marketing plan to sell snack nuts as a specialty food to restaurants/bars, local markets and holiday/special event (weddings, family reunions, baptisms) gatherings.

Achievement of Objectives

1. List assignment objectives from the Scope of Work

- Create awareness of market opportunities for value addition and processing of peanuts in order to maximize farmers' profits.

  Assessment was made that peanut butter processing does not likely present a business opportunity, but producing roasted snack nuts does present a likely business opportunity. The probability of success can be improved by: observing good drying, handling and storage procedures to minimize the presence of Aflatoxin, developing grading and selection procedures, developing consistent peanut roasting skills and preparing a business plan.

- Train farmers in value added activities including peanut roasting and peanut butter processing.

  The training sessions included segments on the key steps in peanut roasting. The challenges of producing peanut butter were discussed and evaluated within the context of existing capabilities in the various communities. It was determined that peanut butter production does not appear to be the next best step in the effort to add value to the agriculture product at the local level in Katete area. It was determined, however that the production of a quality snack nut product was a strategy that appears possible. The training and discussions with EHC included specific steps for implementing a snack nut strategy.

- Train farmers in improved storage methods.

  Farmers in the Katete area have a good awareness of storage issues and methods. The training mostly reinforced existing knowledge. Farmers have received considerable training and advice from the EHC leadership group over the years. EHC maintains a regular extension education program with a select group of farmers and presents various general sessions of training to a larger group of interested farmers. EHC has been involved in the Katete area for a number of years. The training emphasized the general parameters for storage methods that inhibit the presence of Aflatoxins: dry (crop moisture should be below 10% and humidity in storage should be low) temperature is best below 60 degrees F, storage should not be for more than 2 to 6 months unless air tight containers are available for graded and select peanuts that are destined for the specialty food market.

Picture: Structure on left is example of typical storage unit with overhanging roof for extended shade and protection from rain, raised cement pad for protection from ground moister and rodents/insects; and slat walls for air ventilation. Storage units (cribs) are generally built to store maize (a more highly valued crop), but can also be used to store peanuts. Smaller amounts of peanuts are often stored inside the home.

2. Assess your success in fulfilling the objectives.

- Awareness: Objective met. Training sessions provided greater level of detail regarding Aflatoxin causes and consequences, reinforced knowledge base in area of storage and added to knowledge base regarding marketing opportunities.

- Value Added: Objective met. Farmers can add value by minimizing exposure to Aflatoxin, gaining skills in grading and sorting; and gaining skills in roasting peanuts to achieve a consistent quality. Value can also be added by preparing a business plan for the local production of snack nuts as a specialty food for the local market.

- Storage: Objective met. The presence of Aflatoxin in the food supply is a major issue associated with the storage of peanuts. Aflatoxin results from the presence of a particular type of fungus. There have been significant efforts in past years to make the farmers aware that Aflatoxin is a health hazard to humans and can cause both short term and long term health issues. The most serious health issues include damage to the liver and liver cancer. Objective accomplished.

  One step in fulfilling the objective involved meeting with representatives of the Agriculture research station that is located in Chipata. A meeting was arranged with Ms. Janet Zulu, Lab Technician responsible for Aflatoxin testing. Also present for part of the meeting was Mr. Kennedy Kanenga, Program Director. The following is a summary of key information obtained at the meeting:

  1. Ms. Zula has the training and skill set to perform Aflatoxin testing.

  2. There is a program to test peanut butter for Aflatoxin (no written copy of program process was obtained).

  3. The capability exists to test for Aflatoxin at any stage of the food supply chain, but it was not clear as to the process for requesting testing or the cost of any testing to an individual or organization.

  4. There is local capability to provide information on Aflatoxin issues, information on good storage practices and information on good food processing practices.

  5. The Agriculture research station has the capability to provide information and training to peanut farmers, but the number of

farmers and farm groups is so large that it is a challenge to reach all of the farmers and farm organizations in the Eastern Province of Zambia.

Picture: Steve Laible (volunteer), Janet Zulu (Lab Technician), and Kennedy Kanenga discussing Aflatoxin testig methods at Agriculture research station.

3. Were there changes in the objectives during your assignment? If so, explain what the changes were and why they occurred. Did you work on objectives or in areas other than those specified in the Scope of Work? If so, explain what they were and why your work extended to those areas.

EHC Leadership and Volunteer followed assignment scope of work.

Key Results and Anticipated Impacts

1. What specific actions do you realistically hope to see the hosts take in implementing your recommendations?

- Continue extension programs that reinforce good practices in the areas of handling, drying and storing peanuts with a goal of controlling the presence and amount of Aflatoxin in the peanut supply.
- Develop and continue training programs on the importance of grading and selecting quality peanuts as an ingredient in specialty food products.
- Initiate a program to promote quality peanut roasting methods including strategies for the procurement of shared equipment.
- Initiate a business plan to establish a snack nut marketing program in the local areas of Katete.
- Develop and promote farm management practices including better record keeping and sharing of information.

2. How do you anticipate the economic well being (or income) of the host will improve as a result of implementing your recommendations?

- Establishing a reputation and reality for producing a product that meets food safety standards could result in higher sales and prices.
- Good grading and selection practices could result in higher prices and increased demand by the specialty food market thereby opening new markets.
- Establishing a quality roasting program could create an opportunity for a product not currently available in local markets.
- Initiating and implementing a business plan for a new product could lead to expanded income generation and improved economic well-being for local farmers and farm groups.
- Maintaining good farm management records could facilitate the improvement of economic results and sharing information could result in stronger communities.

During your assignment, you collected the names and contact information of farmers or business people you trained. Please provide a list of them here, or as an attachment. This is essential in order for NCBA CLUSA to be able to follow-up on your assignment.

Lists of farmers and others trained included as scanned copies of the registration sign in sheets used at the following training sessions:

- Meeting with EHC leadership: 16 February 2016 Katete (Appendix A-1)
- Training session Zone 1: 16 February 2016 Duka (Appendix A-2)
- Training session Zone 3: 18 February 2016 Yambani (Appendix A-3)
- Training session Zone 4: 19 February 2016 Chimtengo (Appendix A-4)
- Training session Zone 2 20 February 2016 Kalapula (Appendix a-5)

Total: 64 beneficiaries (41 women and 23 men) participated in trainings.

See Appendix A.

Picture: The agriculture research station promotes good farming practices.

Host Profile Data

1. Did you obtain any data that supplements or corrects the data in the existing Host Profile? If so, please list it here.

On site information is consistent with Host Profile provided.

2. Observations about the host organization (optional). Share your impressions of the host organization. NCBA CLUSA appreciates your assessment of the likelihood of the organization's success in the future, their weaknesses and strengths, etc.

Information obtained indicates that host organization receives support from Australia AID and has received support for several years. EHC expects to continue receiving support. The acronym FISP (Food and Income Security Program) is used to refer to the social action initiatives of EHC. There is active involvement with the following crops:

- Maize (Corn)
- Soya (Soy Beans)
- Ground Nuts (Peanuts)
- Sunflower

The EHC training focus includes both nutrition and enterprise (income generation).

Recommendations to NCBA CLUSA (optional)

1. NCBA CLUSA is very interested in your assessment of what should be done next to assist the host organization. Should NCBA CLUSA continue to send volunteers to this host organization? In what areas do you feel the hosts could use additional volunteer assistance? These recommendations will be confidential, and not shared with the host organization.

Awareness levels appear to be satisfactory to support next steps. There are two recommendations that could be useful to EHC and NCBA CLUSA:

- Host organization should develop an implementation plan to demonstrate that concepts and suggestions presented can be moved to an implementation phase of development and income generation.

- Any volunteer resource provided in the future should be timed with the harvest season (mid-April to mid-May) so that implementation of processing suggestions can be validated when harvested peanuts are available.

2. NCABA CLUSA is also very interested in your recommendations on how the logistics of your assignment can be improved for future volunteers. Please include any detailed comments and/or recommendations concerning pre-departure briefing, in-country briefing, hosts, assignment logistics, or Program Coordinator here.

It would be helpful to have a written agenda and itinerary of program meetings and activities before departure.

APPENDIX A-1

Meeting with EHC Leadership
16 February 2016
Orientation and Training

USAID FROM THE AMERICAN PEOPLE

NCBA CLUSA

Farmer to Farmer Sign In Sheet

Host Organization:
Assignment:
Volunteer:

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	Alphonsina Lungu Jiya	F	0979124291	16/02/2016
2	Erick Mwale	M	0977565407.	" " "
3.	George Sakala	M	0972979668	16/02/2016
4	Oliver Mooba	M	0979258971	16/02/16
5	SAMSON JIYA	M	0967785052	16/02/16
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Picture: Orientation meeting with Samson Jiya and EHC leadership team.

APPENDIX A-2

Meeting with Farmers
Training session Zone 1: 16 February 2016 Duka

USAID
FROM THE AMERICAN PEOPLE

NCBA CLUSA

16/02/2016

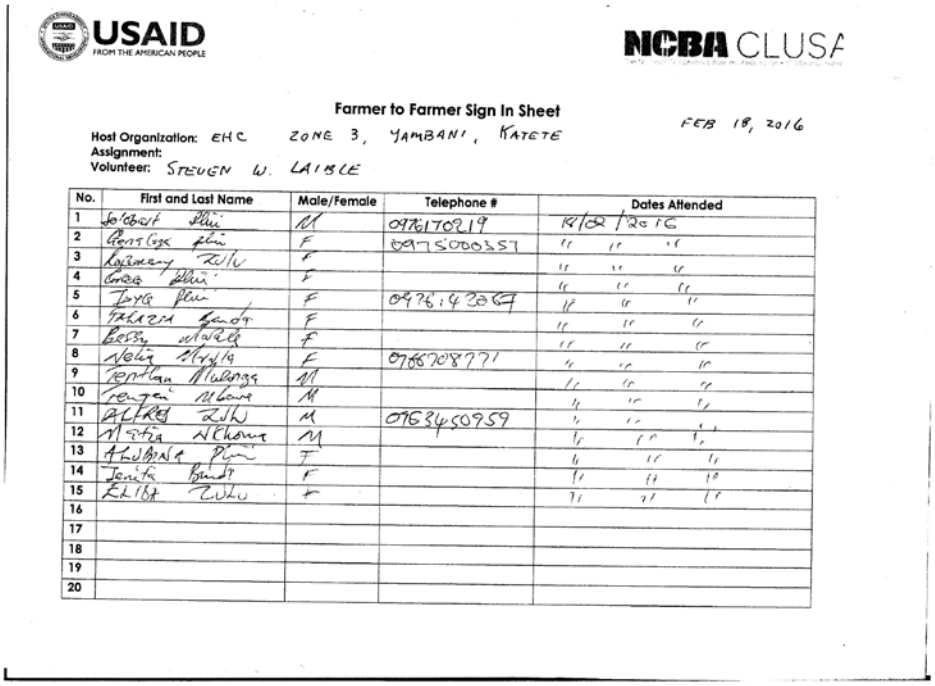
Farmer to Farmer Sign In Sheet

Host Organization:
Assignment:
Volunteer:

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	Michael Banda	M		16/02/2016
2	Agnes Sakala	F		" " "
3	Loreto Banda	F		" " "
4	Jeni Zulu	F		
5	Felida Jere	F		
6	Chakhomphwa H/B	M		" " "
7	Chalilomu	F		
8	Mainess Tembo	F		MAINESS TEMBO
9	Samson Banda	M		" " "
10	Isaac Jere	M		
11	Mine Sakala	F		MINE SAKALA
12	Edward Nkhoma	M		
13	Benitos Jere	M		" " "
14				
15				
16				
17				
18				
19				
20				

APPENDIX A-3

Meeting with Farmers
Training session Zone 3: 18 February 2016 Yambani



USAID FROM THE AMERICAN PEOPLE

NCBA CLUSA

Farmer to Farmer Sign In Sheet

FEB 18, 2016

Host Organization: EHC ZONE 3, YAMBANI, KATETE
Assignment:
Volunteer: STEVEN W. LAIBLE

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	Solobert [illegible]	M	0976170219	18/02/2016
2	[illegible] [illegible]	F	0975000357	" " "
3	[illegible] [illegible]	F		" " "
4	[illegible] [illegible]	F		" " "
5	[illegible] [illegible]	F	0976:43869	" " "
6	[illegible] [illegible]	F		" " "
7	[illegible] [illegible]	F		" " "
8	[illegible] [illegible]	F	0966708771	" " "
9	[illegible] [illegible]	M		" " "
10	[illegible] [illegible]	M		" " "
11	[illegible] [illegible]	M	0963450959	" " "
12	[illegible] [illegible]	M		" " "
13	[illegible] [illegible]	F		" " "
14	[illegible] [illegible]	F		" " "
15	[illegible] [illegible]	F		" " "
16				
17				
18				
19				
20				

APPENDIX A-4

Meeting with Farmers

Training session Zone 4: 19 February 2016 Chimtengo

USAID FROM THE AMERICAN PEOPLE

NCBA CLUSA

Farmer to Farmer Sign In Sheet FEB 19, 2016

Host Organization: EHC, CHIMTENGO, ZONE 4, KATETE
Assignment:
Volunteer: STEVEN W. LAIBLE

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	NELSON MULLA	MALE		19/02/2016
2	PETER L. TEMBO	MALE		" "
3	ALMON BANDA	MALE	0978557648	" "
4	THOMAS PHIRI	MALE		" "
5	JESSY PHIRI	FEMALE		" "
6	ROZALIA PHIRI	FEMALE	0963518331	" "
7	TRIFONIA BANDA	FEMALE	0962181652	" "
8	TOMALDA TEMBO	FEMALE		" "
9	ANGELLE PHIRI	FEMALE		" "
10	TISILLE TEMBO	FEMALE		" "
11	RUTH PHIRI	FEMALE	0971006225	" "
12	ROSEMARY PHIRI	FEMALE		" "
13	HELDE PHIRI	FEMALE		" "
14	LIMBIKANI SAKALA	MALE		" "
15	GETRUDE SAKALA	FEMALE	0974069025	" "
16	VELE PHIRI	FEMALE		" "
17	ESINELI PHIRI	FEMALE		" "
18				
19				
20				

APPENDIX A-5

Meeting with Farmers
Training session Zone 2: 20 February 2016 Kalapula

USAID FROM THE AMERICAN PEOPLE

NCBFAZ CLUSF

Farmer to Farmer Sign In Sheet

Host Organization: EHC ZONE 2 KALAPULA, KATETE FEB 20, 2016
Assignment:
Volunteer: STEVEN W. LAIBLE

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	PHIRI DAVID	M	0974125576	20-02-16
2	PHIRI ROBERT	M		"
3	PHIRI LOTI	M	0978430226	"
4	PHIRI FELISTUR	F	0963230629	"
5	BANDA FLORENCE	F		"
6	BANDA GRACE	F		"
7	BANDA MARGRET	F		"
8	NYIRENDA GRACE	F		"
9	PHIRI EMELI	F		"
10	SAKALA AGNESS	F		"
11	SAKALA MALINA	F		"
12	PHIRI BETTY	F		"
13	PHIRI ADOLOPHINA	F		"
14	PHIRI ABETINA	F		
15				
16				
17				
18				
19				
20				

Appendix B

Example of Snack Nut Production and Marketing
(Example from Cameroon)

This is an example of a Cameroon woman who used initiative in using recycled fancy glass bottles as packaging for peanuts. The woman set up a food stall near a hospital parking lot and has a very good business selling peanuts to people who are waiting at the hospital with family members who are seeing a doctor. This was used as an example of marketing and seeking out opportunities that might exist in a particular area.

DELTA TSA PRECHK BOARDING PASS SKYMILES AMEX

LAIBLE/STEVENWILLIAM 1 006 7700057507 1

GAWBXO

SILVER/ELITE

DL2680501430

VLP69US

FLIGHT	DATE	CLASS	ORIGIN
DL1546	09FEB	V	PHOENIX

OPERATED BY DELTA AIR LINES INC

MAIN DESTINATION ATLANTA

DEPARTS 1117A

BRD TIME 1037A

SEAT 22C

ZONE 1

DEPARTURE GATE 17 **SUBJECT TO CHANGE**

PHX237837/DG

BOARDING PASS SKYMILES AMEX

LAIBLE/STEVENWILLIAM

SILVER/ELITE

DL2680501430

SEAT 22C

FLIGHT DL1546 DATE 09FEB

ORIGIN PHOENIX

ZONE 1

DESTINATION ATLANTA

EQP01

OPERATED BY DELTA AIR LINES INC

DELTA TSA PRECHK BOARDING PASS SKYMILES AMEX

LAIBLE/STEVENWILLIAM 2 006 7700057507 4

GAWBXO

SILVER/ELITE

DL2680501430

VLP69US

FLIGHT	DATE	CLASS	ORIGIN
DL200	09FEB	V	ATLANTA

OPERATED BY DELTA AIR LINES INC

MAIN DESTINATION JOHANNESBURG

DEPARTS 720P

BRD TIME 625P

SEAT 35G

ZONE 1

DEPARTURE GATE — SEE AIRPORT MONITORS

DOCS-OK

BCN ATL052

PHX237837/DG

BOARDING PASS SKYMILES AMEX

LAIBLE/STEVENWILLIAM

SILVER/ELITE

DL2680501430

SEAT 35G

FLIGHT DL200 DATE 09FEB

ORIGIN ATLANTA

ZONE 1

DESTINATION JOHANNESBURG

OPERATED BY DELTA AIR LINES INC

BCN ATL052

SOUTH AFRICAN AIRWAYS

CLASS: Y/L SEAT: 5B

ECONOMY CLASS

LAIBLE/STEVEN WILL

SA 8160 11FEB

FROM: JOHANNESBURG/J

TO: LUSAKA/LUN

DEPARTURE TIME: 06:35

ETKT 30067700057507

SEQ NO: 22

SOUTH AFRICAN AIRWAYS

CLASS: Y/T SEAT: 17A

ECONOMY CLASS
LAIBLE/STEVEN WILL
SA 67 22FEB
FROM: LUSAKA/LUN
TO: JOHANNESBURG/J

DEPARTURE TIME: 07:20

ETKT 10067750914982
SEQ NO: 17
1/17KG

BOARDING PASS:

SOUTH AFRICAN AIRWAYS

FLIGHT NO: DL201
BOARDING TIME: 19:15
GATE:
SEAT: 35G

DL 2680501430

NAME: LAIBLE/STEVEN WILL
FROM: JOHANNESBURG/JNB
TO: ATLANTA/ATL

CLASS: Y/Y
DATE: 22FEB

ETKT 20067750914982

SEQ NO: 26

SOUTH AFRICAN AIRWAYS

CLASS: Y/Y SEAT: 35G

LAIBLE/STEVEN WILL
DL 201 22FEB
FROM: JOHANNESBURG/J
TO: ATLANTA/ATL

DEPARTURE TIME: 19:55
DL 2680501430
ETKT 20067750914982
SEQ NO: 26
1/17KG

BOARDING PASS:

SOUTH AFRICAN AIRWAYS

FLIGHT NO: DL1546
BOARDING TIME: 07:30
GATE:
SEAT: 25D

DL 2680501430

NAME: LAIBLE/STEVEN WILL
FROM: ATLANTA/ATL
TO: PHOENIX/PHX

CLASS: Y/Y
DATE: 23FEB

ETKT 30067750914982

SEQ NO:

SOUTH AFRICAN AIRWAYS

CLASS: Y/Y SEAT: 25D

LAIBLE/STEVEN WILL
DL 1546 23FEB
FROM: ATLANTA/ATL
TO: PHOENIX/PHX

DEPARTURE TIME: 08:10
DL 2680501430
ETKT 30067750914982
SEQ NO:
1/17KG

Farmer-to-Farmer Program
Support for Adoption of Improved Seed
Scope of Work

Host/Partner: Chipata District Farmers Association (CDFA) and Community Oriented Development Program (CODEP)

Beneficiary Organization: CDFA and CODEP	**Location of Project:** Chipata Eastern Province, Zambia
Primary Contact Person: Virgil Malambo(CDFA) Joseph Mwale (CODEP)	**Date Project Started:** March 2015
Telephone/Fax: +260 97 776 764 (Virgil) +26 0 97 7 767263 (Joseph)	**Type of Assignment:** Improved Seed Production
Email: Chipatafarmers@yahoo.com (Virgil) cowpat@yahoo.com (Joseph)	**Dates of Assignment:** February/March 2016
Brief background on beneficiary organization: Chipata District Farmers Association is a Non-Governmental Farmers Association with 2,000 registered farmers, most of whom are small-scale farmers. The Association's main focus in the Eastern Province is offering training to farmers in agriculture related subjects such as poultry, piggery, crop husbandry, and agribusiness. It also focuses on poverty reduction and land access for disadvantaged members of the community. The association offers seasonal agricultural inputs on credit in partnership with Zambia National Farmers Union (ZNFU) and Zambia National Commercial Bank (ZANACO). Community Oriented Development Program (CODEP) is a local NGO serving 12,000 farmers in the Chipata region of the Eastern Province. CODEP works with 300 peanut producers and seed growers, of whom 75% are women. CODEP's mission is to improve food security and nutrition at the household level, especially in rural communities through support in the areas of agricultural production, natural resource management, education, water and sanitation, and health. Peanut farmers tend to use seeds from the previous harvest and purchase additional seeds from fellow farmers that were originally kept from consumption to use as seeds to make up for a shortfall. Generally, these seeds are poorly stored and often used for generations lasting 6-10 years, which	**Objectives of the Assignment:** • To sensitize and educate farmers on the importance of adopting improved seeds. • To link Farmers to certified seed suppliers, i.e. seed growers and community agro dealers • To train farmers on how to produce improved seed at home

<table>
<tr><td>results in inferior quality seed. All of these factors lead to poor seed which then impacts yields. Additionally, poor storage usually goes hand in hand with poor drying which also potentially increases aflatoxin levels within the harvest.

This assignment is designed to educate and sensitize farmers on the importance of using good quality peanut seeds in order to produce a healthy harvest and incorporate proper home seed production methods.</td><td></td></tr>
<tr><td colspan="2">Tasks to be carried out
Training on the importance and benefits of improved seed
Training on how to identify good quality seed versus bad quality seed
Training in peanut home seed production and management
Training on how to access improved seed</td></tr>
<tr><td>Expected number of persons to be trained (m/f):
10/20</td><td>Required expertise of Volunteer:
Plant agronomist</td></tr>
</table>

NCBA CLUSA Farmer-to-Farmer Program
Improved Groundnut Seed Production for CODEP and CDFA

Charlene Nash

Volunteer Trip Report

Assignment Information

1. Your name: Charlene Nash
2. The name of the host organization: CODEP, CDFA CHIPATA, ZAMBIA
3. The dates of the assignment: Feb. 21-Mar. 6, 2016

Recommendations to the Host Organization (please provide a minimum of 3)
[Insert specific recommendations; i.e. among Economic Impacts; Organizational Impacts Capacity Impacts; or Environmental Impacts, for host organizations, including instructions or strategies for achieving them whenever possible.]

1. Start the use of planting beds to eliminate some of the hard work and increase yields by not overworking the soil when too dry or wet, creating hardpan.
2. Direct sale of seeds to other local farmers next year rather than contracting with Zam seed to improve income by eliminating the middle man.
3. Start making high quality active compost to put around seeds/plants in the beds and brew compost tea for foliar spray and disease/pest suppression

Achievement of Objectives

1. **List assignment objectives from the Scope of Work**
   1.To sensitize farmers on the importance of adopting improved seeds.
   2. To link Farmers to certified seed suppliers, seed growers and community agro dealers
   3. To train farmers on how to produce improved seeds at home.

2. **Assess your success in fulfilling the objectives.**
   The importance of improved soil fertility and water holding capacity was stressed as a means to improve seed production and quality. Buying new seed and growing under the same conditions will not yield better results. The only way to crop improvement is through changing farming methods. By increasing fertility they will have quality seed which stores better, resists pests better, and has heavier test weights. All farmers in the area will benefit from the improved seed quality.
   I met a small firm, Zasaka seed company which specializes in cover crop seed. I am putting them in touch so the CODEP farmers can grow seed for them in the off

season. The dealers in town were not too well stocked with needed supplies of any kind as usual.

3. **Were there changes in the objectives during your assignment? If so, explain what the changes were and why they occurred. Did you work on objectives or in areas other than those specified in the Scope of Work? If so, explain what they were and why your work extended to those areas.**
   The objectives were modified to stress soil building as the key to improved seed. Great seed is ruined by poor practices after only one generation. I visited several groundnut seed producers and their crops at this stage looked good. They were just starting to peg so I stressed using the tea immediately on as many hectares as possible to help give the crop a boost for this year hopefully. I took a solar air pump to create the tea and gave instructions so they can each brew enough for their field then pass it on to someone else. I would have brought 2 if I had known I would be working with 2 different groups. The scope specified one group of 10-20 farmers but we ended up with 2 groups and only spending a few days with each.

Key Results and Anticipated Impacts

1. **What specific actions do you realistically hope to see the hosts take in implementing your recommendations?**
   I am paying for 1000 labels for their next crop to be sold to local farmers. Now seed brings about 6 kwa and Zam seed sells for 18 kwa and the farmers notice that. They would like the extra money. They will have to buy labels for the next harvest out of the extra income.
   They also seemed very excited about compost and compost tea when I explained what it will do. I also passed out some cover crop seed to grow out for more seed and explained how they should be used to build soil. Planting trees and having edge plants for insect banks and compost material was stressed as well. Small things that cost nothing such as weedy edges, planting Tithonia in maize etc all raise the yield without spending money due to better environments. I have ordered 200 kg of cowpea seed to be distributed to the almost 40 farmers I trained to be used for cover crops and building fertility. Possible seed sales as well.
2. **How do you anticipate the economic well being (or income) of the host will improve as a result of implementing your recommendations?** Nutrition was stressed as well-soil improvement helps people, plants and animals. They should increase yields, quality and that should translate to income increase as well. They were given recipes to create fertilizers which can be sold to other farmers for income. Selling the healthier groundnut seeds should bring in a great deal more income if they follow through. They wanted to direct sell their seeds already and were needing extra help to get it done. Their seed should end up being higher quality than Zam seed's product.

During your assignment, you collected the names and contact information of farmers or business people you trained. Please provide a list of them here, or as an

attachment. This is essential in order for NCBA CLUSA to be able to follow-up on your assignment.

List of Contacts

List of farmers and others trained
– See Appendix 1.

Total: 54 women and 6 men participated in trainings.

Host Profile Data

1. **Did you obtain any data that supplements or corrects the data in the existing Host Profile? If so, please list it here. Mostly women as the scope states.**

2. **Observations about the host organization (optional). Share your impressions of the host organization. NCBA CLUSA appreciates your assessment of the likelihood of the host organization's success in the future, their weaknesses and strengths, etc. They seemed like a cohesive group interested in learning new ways. Alex and I both think they will follow through.**

Recommendations to NCBA CLUSA (optional)

1. **NCBA CLUSA is very interested in your assessment of what should be done next to assist the host organization. Should NCBA CLUSA continue to send volunteers to this host organization? In what areas do you feel the hosts could use additional volunteer assistance? These recommendations will be confidential, and not shared with the host organization.**

No additional recommendations are needed since the program is over, however, I would love to go back for follow up and take additional supplies for tea making. They need additional help in connecting with Zasaka and training in cover crops. Also the co-op farmers working with Zasaka need soil training very badly as Zasaka is weak in that area. I met with the officers of Zasaka and gave them ideas too.

2. **NCBA CLUSA is also very interested in your recommendations on how the logistics of your assignment can be improved for future volunteers. Please include any detailed comments and/or recommendations concerning pre-departure briefing, in-country briefing, hosts, assignment logistics, or Program Coordinator here.**

   My accommodations were great but the lodge has sold out-food very good. The staff at Mama Rula's was most helpful during my stay. Too bad they may close soon-possibly will build more chalets on the campground and continue to be open. Not sure.

Appendix 1. **List of farmers and others trained**

Name	male /female	Organization/Village

See scanned sign-in sheets

FROM THE AMERICAN PEOPLE

Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: ~~Set~~ Improve Seed Training
Volunteer: CHARLENE NASH

No.	First and Last Name	Male/Female	Telephone # NRC	Dates Attended
1	LIMITED PHIRI	M	4456394/1/1	1-2-/03/16
2	JIJU ZULU	M	28/982/52/1	1-2-/03/16
3	PATSON TEMBO	M	0978336643	1-2-/03/16
4	ROTMO MBATMA	M		"
5	WILL TEMBO	M		ZASAKA "
6	AILESI BANDA	F	0978227429	"
7	FLORENCE TEMBO	F	0979578145	2/03/16
8	Cleaness Mbawa	F	—	
9	DOROTHY Ngoma	F	—	2/03/16
10	Charity Soko	F	—	"
11	MWAMISHUP BANDA	F	—	"
12	REBECCA MSONI	F	—	"
13	Christmary Zulu	F	—	"
14	Mulunze Zulu	F	—	"
15	Lillambilenje Ngoma	F	—	"
16	Margret Msoni	F	—	"
17	Tiyamikeni Mwanza	F	—	"
18	Jinja Mbawa	F	—	"
19	JENIPHER HARA	F	—	"
20	HENDRICK NGOMA	M	096623505	"

31/03/16

18	GAMLIA NKHOMA		CHIWEZA	0953232776	G. NKHOMA
19	JENALA BANDA		Andrason		J. Banda
20	PATRICIA SAKALA	400189/52/1	Chikuwe		P. SAKALA
21	MEMORY NYAMA		Chikuwe		M. Nyama
22	BEATRICE BANDA	400484/52/1	Chikuwe		B. Banda
23	ESNEYA Zulu	~~400481/52~~	Chikuwe		E. ZULU ~~Banda~~
24	VOLETI BANDA		Chikuwe		V. Banda
25	VERONICA BANDA	354051/52/1	Chikuwe		V. Banda
26	GRACE MWALE		Chikuwe		G. mwale
27	NELIYA MBEWE		Chikuwe		N. Mbewe
28	TIKHOZENSI MBEWE		Chikuwe		T. Mbewe
29	JOYCE NGUNI		Chikuwe		J. Nguni
30	IRIS BANDA	323483/51/1	Chikuwe	0979285444	I. Banda
31	HARRIET SAKALA		Chikuwe	0965305204	H. SAKALA
32	BERTHA NGOMA		Chikuwe		B. Ngoma
33	HILDA TEMBO		Chikuwe		H. Tembo
34	Sella Shumba		Chikuwe		S. Shumba
35	Memory Nyama		Chikuwe		M. Nyama
36	Lovness Tonga		Chikuwe		L. Tonga
37	Aidah Daka		Chingaipe	0989420919	A.
38	CHRISTINE BANDA		Chikuwe	0971606658	
39	BEATRICE SAKALA		Chikuwe		
40	Agness Ziwa.		Chikuwe		C. Banda
			Chikuwe	0774677111	B. Sakala

COMMUNITY ORIENTED DEVELOPMENT PROJECT (CODEP)

P.O. BOX 511317 ,CHIPATA . ZAMBIA Tel: 216 223671 Cell: 0977767263

E-mail: codepchip@yahoo.com

CODEP SEED IMPROVEMENT TRAINING

23/02/16 – 1st MARCH 2016

	NAME OF PARTICIPANT	NRC	LOCATION	PHONE NO.	SIGNATURE
1	NYEMBEZI DAKA	307277/52/1	CHINGAMPE		N. Daka
2	TIPILILE PHIRI		CHINGAMPE		
3	IREEN TEMBO		Chikuwe	0962290059	Treen Tembo
4	ESTER SAKALA 1	450158/52/1	chikuwe	0965734888	E. Sakala
5	IREEN ZULU	234480/52/1	Chikuwe		I. ZULU.
6	ESTER SAKALA 2		chikuwe		E. Sakala
7	ZENAIDA Zulu		Chikuwe		Z. Zulu.
8	JUDITH MWALE		chikowe		J. Mwale
9	JOYCE MBEWE	457720/52/1	chikuwe	0972613850	J. Mbw.
10	MARGRET PHIRI		chikuwe		M. Phiri
11	PEARSON MWANZA		chikuwe		P. Mwanza
12	WITYSON SAKALA		chikuwe		W. Sakala
13	BOMA NGOMBE	269216/52/1	CHIWEZA	0962791043	Bngombe
14	IREEN MWALE	307534/52/1	CHIWEZA	0961043363	I. mwale
15	ESTER MWANZA	133600/42/1	11	0964087650	E. Mwanza
16	EDINA SAKALA		CHIWEZA	0953237960	E.
17	AILESS MWALE	288304/52/1	CHIKUWE	0962172369	A. Mwale

BOARDING PASS

NASH/ELIZABETHCHARLE
SILVER/ELITE
DL2244307001

SEAT
33D
ZONE 1

FLIGHT DATE
DL201 05MAR
ORIGIN
JOHANNESBURG
DESTINATION
ATLANTA
OPERATED BY DELTA AIR LINES INC

BCN
JNB108

BAGS
02
ACS-SR03-15

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

CLASS: Y/Y
SEAT: 1C

NASH/ELIZABETH CHA
DL 4623 06MAR
FROM: ATLANTA/ATL
TO: CHATTANOOGA/CH

DEPARTURE TIME: 10:30

ETKT 20067745517742
SEQ NO:

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

CLASS: Y/T
SEAT: 22D

ECONOMY CLASS
NASH/ELIZABETH CHA
SA 65 05MAR
FROM: LUSAKA/LUN
TO: JOHANNESBURG/J

DEPARTURE TIME: 15:55

ETKT 4006774551774 1
SEQ NO: 12

BOARDING PASS

NASH/ELIZABETHCHARLE
SILVER/ELITE
DL2244307001

SEAT
1C
ZONE 1

FLIGHT DATE
DL4765 21FEB
ORIGIN
CHATTANOOGA
DESTINATION
ATLANTA
OPERATED BY SKYWEST DBA DELTA CNX
A DELTA CONNECTION CARRIER

BAGS
02

BOARDING PASS

NASH/ELIZABETHCHARLE
SILVER/ELITE
DL2244307001

SEAT
1C
ZONE 1

FLIGHT DATE
DL4623 06MAR
ORIGIN
ATLANTA
DESTINATION
CHATTANOOGA
OPERATED BY SKYWEST DBA DELTA CNX
A DELTA CONNECTION CARRIER

BAGS
02
ACS-SR03-15

BOARDING PASS

NASH/ELIZABETHCHARLE
SILVER/ELITE
DL2244307001

SEAT
36C
ZONE 1

FLIGHT DATE
DL200 21FEB
ORIGIN
ATLANTA
DESTINATION
JOHANNESBURG
OPERATED BY DELTA AIR LINES INC

BCN
ATL078

BAGS
02

Farmer-to-Farmer Program
Cooperative Enterprise and Market Development
Scope of Work

Host/Partner: Chipata District Farmers Association (CDFA)

Beneficiary Organization: Chipata District Farmers Association (CDFA)	**Location of Project:** Chipata, Eastern Province, Zambia
Primary Contact Person: Virgil Malambo	**Date Project Started:** March 2015
Telephone/Fax: +260 97 776 764	**Type of Assignment:** Cooperative Enterprise and Market Development
Email: Chipatafarmers@yahoo.com	**Dates of Assignment:** March 2016
Brief background on beneficiary organization: Chipata District Farmers Association is a Non-Governmental Farmers Association with 2,000 registered farmers, most of whom are small-scale farmers. The Association's main focus in the Eastern Province is offering training to farmers in agriculture related subjects such as poultry, piggery, crop husbandry, and agribusiness. It also focuses on poverty reduction and land access for disadvantaged members of the community. The association offers seasonal agricultural inputs on credit in partnership with Zambia National Farmers Union (ZNFU) and Zambia National Commercial Bank (ZANACO). 90% of cooperatives and farmers groups affiliated with CDFA were primarily formed to receive subsidized inputs from the government which makes them active only during the input distribution period and inactive for the rest of the year. With this reliance on subsidies, farmers often don't understand the potential economic and social benefits of being part of a co-op or farmers group. This assignment is aimed at helping farmers understand the cooperative business model and how it can provide farmers with economic and social benefits through cooperative functions such as product aggregation to become more competitive on the market and pooling of resources to obtain better prices for inputs. The assignment will target cooperatives affiliated with CDFA, including Chipata Farmers Cooperative Limited which CDFA and NCBA CLUSA helped to form a few years ago.	**Objectives of the Assignment:** • Farmers will develop a better understanding of the cooperative business model, the 7 cooperative principles, and how cooperatives are different from regular businesses. • Farmers will learn about cooperative management and organization. • Farmers will learn about strategic planning and marketing strategies, particularly in regard to "aflatoxin safe peanuts"

<table>
<tr><td colspan="2">Tasks to be carried out
• Provide training on the cooperative business model and the 7 internationally recognized cooperative principles
• Provide training on cooperative organization and management
• Provide training on strategic planning and marketing strategies, particularly for the peanut value chain</td></tr>
<tr><td>Expected number of persons to be trained (m/f):
30/60</td><td>Required expertise of Volunteer:
Cooperative Development/Marketing Specialist</td></tr>
</table>

NCBA CLUSA Farmer-to-Farmer Program

Cooperative Enterprise and Market Development, Zambia

Mollie Moisan

Volunteer Trip Report

Assignment Information

1. Your name: Mollie Moisan
2. The name of the host organization: Chipata District Farmers Association
3. The dates of the assignment: March 3 - 17, 2016

Recommendations to the Host Organization (please provide a minimum of 3)

Organizational Impacts:

Continue to improve communication, and solicit input from members. Gain member activity by inclusion, creating committees for specific activities: ie: business enterprises, member engagement. regularly scheduled meetings, including alternative communication avenues for those who cannot attend in person. For CDFA specifically, begin researching the funding needed for cooperative purchasing, value added products, and sales. I'm looking forward to following up with the Cooperatives I visited.

Achievement of Objectives

List assignment objectives from the Scope of Work: a. Farmers will develop a better understanding of the cooperative business model, the 7 cooperative principles, and how cooperatives are different from regular business b. Farmers will learn about cooperative management and organization. c. Farmers will learn about strategic planning and marketing strategies, particularly in regard to "aflatoxin safe" peanuts.

Assess your success in fulfilling the objectives.

We worked with 3 cooperatives besides CDFA: Chipata Farmers Cooperative, Mwende Cooperative, and Feni Multi Purpose Cooperative. All 3 were different in their structure, purpose, and level of organization. I feel that the training we did with all groups was successful and well received, especially due to

HAVING A MIX OF BOARD MEMBERS, AS WELL AS MEMBERSHIP. THE TRAINING WE DID FOCUSED ON THE FOLLOWING:

- GENERAL COOPERATIVE BUSINESS STRUCTURE
- 7 COOPERATIVE PRINCIPLES, AS WELL AS A GROUP ASSESSMENT OF HOW THE COOPS WERE FOLLOWING THESE, OR, COULD HELP THEIR CO-OP BY MAKING CHANGES IN LINE WITH THE PRINCIPLES
- KNOWLEDGE OF TYPES OF COOPERATIVES, LOCALLY, AND GLOBALLY
- BOARD OF DIRECTORS ROLES AND RESPONSIBILITIES - IMPORTANT TO GAIN ALLEGIANCE WITHIN THE GROUP, AND HAVE AN UNDERSTANDING OF WHY EACH ROLE IS IMPORTANT TO A HEALTHY, WELL FUNCTIONING COOPERATIVE
- COLLECTION OF INFORMATION ON EACH COOPERATIVES CURRENT STATUS: SHARES/ DUES, RETURN OF BENEFIT TO MEMBERS, # OF MEMBERS, CURRENT ACTIVITIES, AS WELL AS CURRENT CHALLENGES.
- SUMMARIZING THE WORKSHOPS, I CONDUCTED A GROUP VISIONING ACTIVITY, WHERE WE GAVE THE GROUP TIME TO THINK, AND THEN COLLECTED INDIVIDUAL IDEAS/DREAMS/VISIONS FOR THE SUCCESS OF THE COOP, AND THEN AGGREGATED THESE INTO A COLLECTIVE VISION FOR THE GROUP. WE LEFT THE HARD COPY WITH EACH GROUP, TO SERVE AS DIRECTION, AND TO USE AS A DECISION MAKING TOOL, TO GET THEM CLOSER TO THEIR SHARED GOALS. EACH GROUP WE WORKED WITH HAD GREAT FEEDBACK, AND WERE MOTIVATED TO MOVE FORWARD!

  SPECIFICALLY, WITH THE CHIPATA FARMERS COOPERATIVE, FORMED IN 2012 UNDER THE WINGS OF CDFA, THEY HAD A WELL VERSED BOARD, BUT GOING THROUGH THE 7 PRINCIPLES BROUGHT OUT THEIR REALIZATION OF THE NEED TO BE AUTONOMOUS. CDFA HAD BEEN MANAGING SOME OPERATIONS, AS WELL AS THEIR BANKING, AND THE GROUP HAD BEEN LEANING ON THEM INSTEAD OF MOVING FORWARD WITH THEIR OPERATIONS INDEPENDENTLY. I WAS DELIGHTED TO BE ABLE TO ASSIST IN COLLECTING A BOARD RESOLUTION, NECESSARY PAPERWORK, AND ACCOMPANIED MR MICHAEL BANDA TO OPEN CHIPATA FARMERS COOPERATIVE'S FIRST BANK ACCOUNT. I LEARNED A LOT FROM MR. BANDA DURING THIS PROCESS ABOUT THE COMMODITY MARKET IN ZAMBIA, AND HOW CHIPATA FARMERS COOPERATIVE CAN WORK WITH OTHER SMALL COOPS WITH THEIR BUSINESS ENTERPRISES.

WERE THERE CHANGES IN THE OBJECTIVES DURING YOUR ASSIGNMENT? IF SO, EXPLAIN WHAT THE CHANGES WERE AND WHY THEY OCCURRED. DID YOU WORK ON OBJECTIVES OR IN AREAS OTHER THAN THOSE SPECIFIED IN THE SCOPE OF WORK? IF SO, EXPLAIN WHAT THEY WERE AND WHY YOUR WORK EXTENDED TO THOSE AREAS.

As I mentioned above, the one thing that we added in, was hearing their current activities and challenges, and then worked that into the visioning workshop. I think this was an important addition, as it brought the co-op knowledge they had just learned into real time applicable solutions for them, as well as strengthened their own perception of what was possible for the group to accomplish collectively THEMSELVES, in their cooperative.

Key Results and Anticipated Impacts

What specific actions do you realistically hope to see the hosts take in implementing your recommendations?
A clear knowledge of cooperation, and and the values, potential of the cooperative business model. Achieved goals via cooperation, and clear collective vision.

How do you anticipate the economic well being (or income) of the host will improve as a result of implementing your recommendations?
Should motivation stay high, radically. The difference between being stagnant in operations, and having a motivated membership with goals is wide.

During your assignment, you collected the names and contact information of farmers or business people you trained. Please provide a list of them here, or as an attachment. This is essential in order for NCBA CLUSA to be able to follow-up on your assignment.

List of Contacts
List of farmers and others trained

– See Attached
Total: 51 persons trained, 4 others received assistance.

Host Profile Data

Did you obtain any data that supplements or corrects the data in the existing Host Profile? If so, please list it here.

Observations about the host organization (optional). Share your impressions of the host organization. NCBA CLUSA appreciates your assessment of the likelihood of the host organization's success in the future, their weaknesses and strengths, etc.

I was very impressed with CDFA and their goal of supporting cooperative development in Zambia. Hedrick from CDFA joined us at

ALL OF OUR TRAININGS, AND CLOSED WITH GIVING EACH GROUP MORE INFORMATION ABOUT CDFA, AS WELL AS CHIPATA FARMERS COOPERATIVE, AND CALLING FOR SOLIDARITY, AND SERVICES SUPPORT BY WORKING TOGETHER. AT THE END OF OUR TRAININGS, WE MET WITH VIRGIL MALABO, THE DISTRICT ORGANIZATIONAL COORDINATOR FOR CDFA, TO SUMMARIZE OUR ACTIVITIES. MR MALAMBO GAVE ME INSIGHT INTO THE HISTORY OF THE COOPERATIVE MOVEMENT IN ZAMBIA, WHICH WAS VERY INTERESTING. WE THEN TALKED ABOUT CHALLENGES IN CHIPATA FOR GETTING MEMBERS TO MEETINGS, AND WAYS TO WORK AROUND THAT. WE ALSO BRAINSTORMED WAYS THAT CDFA COULD WORK TOWARDS BUYING FROM FARMERS DIRECTLY, TO TRANSFORM AND MARKET PRODUCTS, MUCH IN THE WAY THAT PACHAMAMA WORKS. IT'S MY OPINION THAT CDFA HAS VERY CAPABLE PEOPLE IN PLACE, AND I LOOK FORWARD TO KEEPING IN TOUCH, AND HEARING ABOUT THEIR SUCCESSES. I HOPE THAT MORE FUNDING BECOMES AVAILABLE FOR CONTINUED WORK IN ZAMBIA, AS THERE IS GREAT POTENTIAL FOR GROWTH AND FARMER EMPOWERMENT.

RECOMMENDATIONS TO NCBA CLUSA (OPTIONAL)

NCBA CLUSA IS VERY INTERESTED IN YOUR ASSESSMENT OF WHAT SHOULD BE DONE NEXT TO ASSIST THE HOST ORGANIZATION. SHOULD NCBA CLUSA CONTINUE TO SEND VOLUNTEERS TO THIS HOST ORGANIZATION? IN WHAT AREAS DO YOU FEEL THE HOSTS COULD USE ADDITIONAL VOLUNTEER ASSISTANCE? THESE RECOMMENDATIONS WILL BE CONFIDENTIAL, AND NOT SHARED WITH THE HOST ORGANIZATION.

NCBA CLUSA SHOULD ABSOLUTELY CONTINUE TO SEND VOLUNTEERS TO THE HOST ORGANIZATION. AS THIS IS MY SECOND FARMER TO FARMER TRIP, WHAT I FEEL MOST AT A LOSS FOR COMING HOME, IS A REAL ABILITY TO FOLLOW UP. EACH COOP WE WORKED WITH ASKED FOR ME TO COME BACK. SOME SORT OF CONTINUITY WOULD BE HELPFUL. HOWEVER, WANTING TO HAVE SUSTAINABILITY IN OUR PROGRESS, WE DEFINITELY DID ALL OF THE WORK THAT WE COULD, AND SET TIME LINES FOR THE CO-OPS ON THEIR FUTURE ACTIVITIES, AS WELL AS LEFT BEHIND HARD COPIES OF THE GOALS OF THE CO-OPS, FOR THEM TO BE REMINDED OF THE GROUP WORK THAT HAD BEEN DONE.

NCBA CLUSA IS ALSO VERY INTERESTED IN YOUR RECOMMENDATIONS ON HOW THE LOGISTICS OF YOUR ASSIGNMENT CAN BE IMPROVED FOR FUTURE VOLUNTEERS. PLEASE INCLUDE ANY DETAILED COMMENTS AND/OR RECOMMENDATIONS CONCERNING PRE-DEPARTURE BRIEFING, IN-COUNTRY BRIEFING, HOSTS, ASSIGNMENT LOGISTICS, OR PROGRAM COORDINATOR HERE.

I HAVE HAD A REWARDING AND SUCCESSFUL TRIP, AND FEEL LIKE THE WORK THAT WAS ACCOMPLISHED WILL BE LASTING. HOWEVER, I UNDERSTAND THAT OTHER PEOPLE DO NOT WORK IN THE SAME CAPACITY. WITH THAT SAID, THERE IS NOT A LOT OF PRE DEPARTURE BRIEFING. I AM PERSONALLY COMFORTABLE WITH THIS, BUT I WOULD EXPECT THAT NOT ALL VOLUNTEERS WOULD BE.

ALSO, WIFI WAS A BIT OF A CHALLENGE AT THE HOTEL, AND CERTAINLY THESE THINGS ARE EXPECTED. I NEEDED WIFI TO STAY CONNECTED TO MY JOB IN CALIFORNIA. MID WAY THROUGH, ALEX OBTAINED A PRELOADED ETHERNET STICK, WHICH COMPLETELY SOLVED MY CONNECTIVITY ISSUES. I'D RECOMMEND THAT BEING STANDARD, ALONG WITH THE LOCAL CELL PHONE.

APPENDIX 1. LIST OF FARMERS AND OTHERS TRAINED

NAME	MALE /FEMALE	ORGANIZATION/VILLAGE

See attached.

USAID FROM THE AMERICAN PEOPLE

NCBA CLUSA The National Cooperative Business Association • CLUSA International

Farmer to Farmer Sign In Sheet

Host Organization: CDFA Feni Multipurpose Cooperative
Assignment: [illegible]
Volunteer: MOLLIE MOISAN Mollie M

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	ROSEMARY ZULU	—	—	04/01/2016
2	JACOB NGWENTA	M	0972 917528	14. 03. 16
3	CHRISTOPHER SAMBO	M	0976809311	"
4	NATALIA TEMBO	F	0978939918	14 03 · 16
5	Tomaida Ziwa	F	0977260196	14 - 03 - 16
6	ONESTAR TEMBO	F	0976809318	14 - 0 - 03 - 16
7	IREEN SOKO	F	—	14 - 0 - 03 - 16
8	RUTH M PHIRI	F	0976953714	14 - 03 - 16
9	EMELDAH TEMBO	F	—	14-03-16
10	FRIDAH MSHANGA	F	—	14 - 03 - 16
11	MARGRET PHIRI	F	—	14 - 03 - 16
12	CHRISTINE ZULU	F	—	14 - 03 - 16
13	LUDWINA ZULU	F	0976461563	14 - 03 - 16
14	MAGDALENE PHIRI	F	0976342278	14 - 03 - 16
15	EMIAH TEMBO	F	0941843939	14 - 03 - 16
16	MODESTO SAMBO	M	0977867788	14 - 03 - 16
17	ROBERT MAGAWA	M	0963534988	14 - 03 - 16
18	EDITH MAMSA	F	—	14 - 03 - 16
19	JACKIN MSHANGA	M	0966760468	14 - 03 - 16
20	YOTAMU BANDA	M	0978028765	14/03/16

2

USAID
FROM THE AMERICAN PEOPLE

NICEBA CLUSA

Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: Cooperative Development
Volunteer: Mollie Moisan

No.	First and Last Name	Male/Female	Telephone #	Dates Attended
1	MICHAEL BANDA	M	0979751701	09/03/2016
2	Tomaida Ziwa	F	0977260196	09-03-2016
3	KENNETH CHILAMPOO	M	0979646132	09-03-2016
4	MWILA GERSHOM	M	0979578112	09-03-2016
5	VICTOR DAKA	M	0964616809	09-03-2016
6	ESTHER MWANZA	F	0965439587	09-03-2016
7	GLADYS SAKALA	F	0965459560	09-03-2016
8	Alice Miti	F	0967482126	09-03-2016
9	Agness mbewe	F	0979180744	09-03-2016
10	Brendah Mbewe	F	0978812482	09-03-2016
11	cecilia Lungu	F	0979211992	09-03-2016
12	Hedrick Ngoma	M	0966235305	09/03-2016
13				
14				
15				
16				
17				
18				
19				
20				

A. mbewe
C. LUNGU

USAID
FROM THE AMERICAN PEOPLE

NEGEBA CLUSA

Farmer to Farmer Sign In Sheet

Host Organization: CDFA
Assignment: COOPERATIVE DEVELOPMENT
Volunteer: Mollie Maison

No.	First and Last Name	Male/Female	Telephone #	Dates Attended	
1	CYPRIAN ZULU	MALE	0973004854	11 03 2016	Czulu
2	RAPHAEL ZULU	MALE	0966655678	11th-03-2016	
3	RABSON LUNGU	M	0976277075	"	
4	JERE NORMAN	M	0974793954	"	
5	PATRICK K, NGOMA	M	0976750150	"	
6	ISAAC ZULU	M	0978133203	"	
7	Jackson Malungo	M	0977-836317	"	Czulu
8	Chambukila Zulu	M	0974078817		
9	Moses Mwale	M	0977334478		M. Mwale
10	Josias Phiri	M	0977757273		J. Phiri
11	RABSON ZULU	M	0976504842	11 - 03 - 16	
12	DORICA MUWOWO	F	0961022229	11 - 03 - 16	
13	MARTIN MITI	M	0978561124	11 - 03 - 16	M. Miti
14	JERE AARON	M	0979383760	11 - 03 - 2016	
15	Nyendwa Loyce	F	0978252343	11 - 03 - 16	Lnyendwa
16	JERE ACRAS	M	0976685675	11 - 03 - 2016	
17	NAOMI BANDA	F		11 11 11	N. Banda
18	MAGRET LUNGU	F	0975653042	11 11 11	M Lungu
19	KENNETH CHYAMBO	M	0979646132	" " "	
20	ARNOLD SILUMBWE	M	0979865224	11 /03/2016	

BOARDING PASS

DOOTSON/MOLLIEANNMOI

1 006 7754144122 3
GKNZUU

AS159953964
LLWB99US

FLIGHT	DATE	CLASS	ORIGIN	DEPARTS	SEAT
DL1680	03MAR	L	SACRAMENTO	700A	17B
OPERATED BY		MAIN	DESTINATION	BRD TIME	ZONE 2
DELTA AIR LINES INC			MPLS-ST PAUL	620A	

DEPARTURE GATE A3 **SUBJECT TO CHANGE***

BAGS 01

SMF1D4214/TH

BOARDING PASS

DOOTSON/MOLLIEANNMOI

AS159953964

FLIGHT DATE SEAT 17B

DL1680 03MAR

ORIGIN

SACRAMENTO

DESTINATION

MPLS-ST PAUL

OPERATED BY DELTA AIR LINES INC

ZONE 2

BAGS 01

BOARDING PASS

DOOTSON/MOLLIEANNMOI

2 006 7754144122 6
GKNZUU

AS159953964
LLWB99US

FLIGHT	DATE	CLASS	ORIGIN	DEPARTS	SEAT
DL1999	03MAR	L	MPLS-ST PAUL	115P	32E
OPERATED BY		MAIN	DESTINATION	BRD TIME	ZONE 2
DELTA AIR LINES INC			ATLANTA	1235P	

DEPARTURE GATE - SEE AIRPORT MONITORS

BAGS 01

SMF1D4214/TH

BOARDING PASS

DOOTSON/MOLLIEANNMOI

AS159953964

FLIGHT DATE SEAT 32E

DL1999 03MAR

ORIGIN

MPLS-ST PAUL

DESTINATION

ATLANTA

OPERATED BY DELTA AIR LINES INC

ZONE 2

BAGS 01

BOARDING PASS

DOOTSON/MOLLIEANNMOI

3 006 7754144122 2
GKNZUU

AS159953964
LLWB99US

FLIGHT	DATE	CLASS	ORIGIN	DEPARTS	SEAT
DL200	03MAR	L	ATLANTA	722P	52G
OPERATED BY		MAIN	DESTINATION	BRD TIME	ZONE 2
DELTA AIR LINES INC			JOHANNESBURG	627P	

DEPARTURE GATE - SEE AIRPORT MONITORS

DOCS-OK

BCN ATL022

BAGS 01

SMF1D4214/TH

BOARDING PASS

DOOTSON/MOLLIEANNMOI

AS159953964

FLIGHT DATE SEAT 52G

DL200 03MAR

ORIGIN

ATLANTA

DESTINATION

JOHANNESBURG

OPERATED BY DELTA AIR LINES INC

ZONE 2

BCN ATL022

BAGS 01

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

CLASS: SEAT:
Y/T 29D

ECONOMY CLASS
DOOTSON/MOLLIE ANN
SA 66 04MAR
FROM: JOHANNESBURG/J
TO: LUSAKA/LUN

DEPARTURE TIME: 19:05
UA SV950529
ETKT 40067754144122
SEQ NO: 86
1/KG

BOARDING PASS:

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

FLIGHT NO: DL201
BOARDING TIME: 19:15
GATE:
SEAT: 38B

AS 159953964

NAME: DOOTSON/MOLLIE ANN
FROM: JOHANNESBURG/JNB
TO: ATLANTA/ATL

CLASS: Y/Y
DATE: 17MAR

ETKT 20067754144123

SEQ NO: 91

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

CLASS: Y/Y
SEAT: 38B

DOOTSON/MOLLIE ANN
DL 201 17MAR
FROM: JOHANNESBURG/J
TO: ATLANTA/ATL

DEPARTURE TIME: 19:55
AS 159953964
ETKT 20067754144123
SEQ NO: 91

BOARDING PASS:

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

FLIGHT NO: DL760
BOARDING TIME: 09:00
GATE:
SEAT: 30C

AS 159953964

NAME: DOOTSON/MOLLIE ANN
FROM: ATLANTA/ATL
TO: SACRAMENTO/SMF

CLASS: Y/Y
DATE: 18MAR

ETKT 30067754144123

SEQ NO:

SOUTH AFRICAN AIRWAYS
A STAR ALLIANCE MEMBER

CLASS: Y/Y
SEAT: 30C

DOOTSON/MOLLIE ANN
DL 760 18MAR
FROM: ATLANTA/ATL
TO: SACRAMENTO/SMF

DEPARTURE TIME: 09:40
AS 159953964
ETKT 30067754144123
SEQ NO:

NCBA CLUSA
Farmer-to-Farmer Zambia PERSUAP Reporting

PERSUAP Implementation Experience – F2F Assignments:

Over the period covered by this report, NCBA CLUSA did not implement any assignments requiring the F2F PERSUAP.

Assignments with Pesticides: N/A

Assignments with SOWs in IPM and pesticide safer use: N/A

Needs for a PERSUAP amendment: N/A

F2F PERSUAP Assignment Data Table[1]:

Assignment (Trip) Number	Volunteer Name	Country	Country F2F Project	PERSUAP Assignment Type	Work Directly with USAID Mission or Mission-funded Project (Type 4) – Check for Yes	Training Syllabus Sent to F2F AOR/ Mission Environmental Officer (Type 1) – Check for Yes	Training Attended by USAID (Type 1) – Check for Yes
Counts:							

Certifications of assignment and office compliance with PERSUAP guidelines:

A. PERSUAP Compliance – F2F Assignments

[Implementing partner] certifies that all volunteers have received the F2F Environmental Brochure. For all PERSUAP Type 1, 2 and relevant Type 4 SOWs, [implementing partner] further certifies the following have been provided to and developed by the relevant volunteers:

	Type 1 SOWs[2]	Type 2 SOWs[2]

Provided to Volunteer	• F2F PERSUAP with Attachments A - H • SUAP briefing with F2F field staff • Implementing Partner F2F PERSUAP Questionnaire • List of any IPM practices and any tools, forms, protocols, plans from previous volunteers • Host country list of approved pesticides • Approved pesticide list from any other applicable PERSUAPs	• F2F PERSUAP with Attachments B, C, F, H • SUAP briefing with F2F field staff • Implementing Partner F2F PERSUAP Questionnaire • List of IPM practices from previous volunteers
Developed/ Provided by Volunteer	• Syllabus for training event • Material Safety Data Sheets (filed in field office) • Any pesticides that the F2F program should be able to recommend/use which are included on an approved list • Limitations/successes of F2F PERSUAP • Recommendations for additional support on pesticide management practices • Recommendations/feedback on local IPM practices • Highly Toxic Pesticides (Attachment E)/poor pesticide practices witnessed • Tools, forms, protocols, plans for implementation of pesticide-related recommendations	• Limitations/successes of F2F PERSUAP • Recommendations for additional support on pesticide management practices • Recommendations/feedback on local IPM practices

B. PERSUAP Compliance – F2F Offices

[Implementing partner] certifies that all F2F staff have reviewed the F2F Environmental Brochure for staff the fiscal year and that the following have been updated and kept on file:

	Home Office	Field Office
Documents Updated and on File	• F2F Environmental Brochure for staff • PERSUAP with Attachments A-I • Any USAID Mission- or sector-wide PERSUAP(s) for relevant country/sector	• F2F Environmental Brochure for staff • PERSUAP with Attachments A-I • USAID Mission- or sector-wide PERSUAP(s) for relevant country/sector • Host country list of approved pesticides[3] • Implementing partner F2F PERSUAP Questionnaire, with any volunteer additions • Material Safety Data Sheets for relevant pesticides[4] • Tools, forms, protocols, plans developed by volunteers

[1]Required only for PERSUAP Type 1 & 2 SOWs, and for Type 4 SOWs that follow Type 1 & 2 requirements
[2]If governed by F2F PERSUAP, Type 4 SOWs should follow requirements for Type 1, 2, or 3 SOWs, as most relevant
[3]Or, letter from host country government stating that there is no list of government-approved pesticides and noting any specific measures that should be taken when F2F volunteers recommend pesticides
[4]It is recommended that these documents be translated into local languages for distribution to relevant hosts and partners. Please note if they have been translated (in whole or in part), and if not, why.

Farmer-to-Farmer Program Standard Indicator Reporting Tables
Table 1: Volunteer and Assignment Data

Assignment (Trip) Number	Name	Sex	State of Residence	Occupation Category	Race/ Ethnicity	Prior F2F Service	Number of Scopes of Work	Type of Volunteer Assistance	Type of Commodity Chain Activities	Country	Country F2F Project	Scope of Work Start Date	Scope of Work End Date	Number of Volunteer Days Completed	Value of Volunteer Time Leveraged on Assignment (U.S.$)	Estimated Value of Host Contribution (U.S.$)	Number of Persons Trained			Number of Persons Directly Assisted			Number of Volunteer Recommendations Made					Host(s)
																	Male	Female	Total	Male	Female	Total	Economic	Organizational	Environmental	Financial	Total	
Fiscal Year	**2015**																											
1	**Jock Brandis**	M	NC	N	W/N	Y	1	T	P	Zambia	Peanut Value Chain	9/3/2015	9/24/2015	22	$ 10,340.00	$ 75.00	44	150	194	46	159	205	1	1	1	0	3	Community Oriented Development Program (CODEP)
2	**Randy Shackelford**	M	NC	N	W/N	N	1	T	P	Zambia	Peanut Value Chain	9/3/2015	9/24/2015	22	$ 10,340.00	$ 40.00	37	141	178	39	150	189	0	2	1	1	4	Chipata District Farmers Association (CDFA)
Fiscal Year	**2016**																											
3	**Bob Shumaker**	M	AK	F	W/N	Y	1	T	P	Zambia	Peanut Value Chain	10/15/2015	10/31/2015	17	$ 7,990.00	$ 60.00	150	47	197	156	47	203	1	1	1		3	Chipata District Farmers Association (CDFA)
4	**Ryan Hottle**	M	OH	E	W/N	N	1	T	P	Zambia	Peanut Value Chain	1/1/2016	1/15/2016	15	$ 7,050.00	$ 110.00	51	57	108	54	62	116		3			3	Every Home for Christ (EHC)
5	**Randy Shackelford**	M	NC	N	W/N	Y	2	T	P	Zambia	Peanut Value Chain	1/14/2016	2/10/2016	28	$ 13,160.00	$ 50.00	40	50	90	51	65	116	4				4	Every Home for Christ (EHC), Community Markets for Conservation (COMACO)
6	**Jock Brandis**	M	NC	N	W/N	Y	1	T	P	Zambia	Peanut Value Chain	1/26/2016	2/11/2016	17	$ 7,990.00	$ -	13	13	26	19	14	33	1	1	1		3	Community Oriented Development Program (CODEP), Community Markets for Conservation (COMACO)
7	**Steve Laible**	M	MN	N	W/N	Y	1	E	P	Zambia	Peanut Value Chain	2/9/2016	2/23/2016	15	$ 7,050.00	$ 50.00	23	41	64	23	44	67	2	2			4	Every Home for Christ (EHC)
8	**Charlene Nash**	F	TN	N	W/N	Y	1	T	P	Zambia	Peanut Value Chain	2/21/2016	3/6/2016	15	$ 7,050.00	$ -	6	54	60	6	54	60	2		1		3	Chipata District Farmers Association (CDFA), Community Oriented Development Program (CODEP)
9	**Mollie Moisan**	F	CA	C	W/N	Y	1	O	M	Zambia	Peanut Value Chain	3/3/2016	3/18/2016	16	$ 7,520.00	$ -	27	24	51	30	25	55	1	3			4	Chipata District Farmers Association (CDFA)
	Counts:	**9**											**Totals:**	**167**	**$ 78,490**	**$ 385.00**	**391**	**577**	**968**	**424**	**620**	**1,044**	**12**	**13**	**5**	**1**	**31**	**4**

Farmer-to-Farmer Program Standard Indicator Reporting Tables
Table 2: Host Data (Baseline)

						Potential Beneficiaries					Economic Indicators		Environmental Indicator	Financial Services Indicators		Organizational Indicator
Host	**Country**	**Country F2F Project**	**Date of Baseline Assessment**	**Host Gender**	**Institution Type**	**Members/Owners**	**Employees**	**Clients & Suppliers**	**Family Members**	**Total**	**Area of Potential Production Influence (ha)**	**Annual Gross Sales (Revenue) (US$)**	**Annual Net Income (US$)**	**Area Potentially under Improved Environmental/ Natural Resource Management (ha)**	**Annual Value of Rural/ Agricultural Lending (US$)**	**Number of Rural/ Agricultural Loans Issued Annually**	**ODI Rating**
Fiscal Year 2015																	
Community Oriented Development Program (CODEP)	Zambia	SG-08	5/13/2015	M	C	300			1,710	300							
Chipate District Farmers Association (CDFA)	Zambia	SG-08	5/14/2015	M	C	1,500			8,550	1,500							
Fiscal Year 2016																	
Every Home for Christ (EHC)	Zambia	SG-08	5/18/2015	M	N	6,000			34,200	6,000							
Community Markets for Conservation (COMACO)	Zambia	SG-08	12/9/2015	M	P4		217		1,237	217							
Total:											12,000						
Count:	**4**		**Total:**			**7,800**	**217**		**45,697**	**8,017**	**12,000**						

Farmer-to-Farmer Program Standard Indicator Reporting Tables
Table 3: Host Data (Outcomes/Impacts)

								Actual Beneficiaries			Economic Impacts		Environmental Impacts	Financial Services Impacts		Organizational Impacts			Number of Volunteer Recommendations Made				Number of Volunteer Recommendations Adopted				
Host	Country	Country F2F Project	Date of Impact Assessment	Host Gender	Institution Type	Members/Owners	Employees	Clients & Suppliers	Family Members	Total	Area under Improved Production Technology (ha)	Annual Gross Sales (Revenue) (US$)	Annual Net Income (US$)	Area under Improved Environmental/ Natural Resource Management (ha)	Annual Value of Rural/ Agricultural Lending (US$)	Number of Rural/ Agricultural Loans Issued Annually	ODI Rating	Number of New or Improved Products and/or Services	Value of Resources Mobilized by Host (US$)	Economic	Organizational	Environmental	Financial	Total	Economic	Organizational	Environmental	Financial	Total
Fiscal Year																													
	Count:	**Zambia**		**Total:**																									

Farmer-to-Farmer Program Standard Indicator Reporting Tables

Table 4: Outreach and Leverage

Implementing Partner Name	Fiscal Year	Number of Press Releases	Number of Media Events	Number of Group Presentations	Total Number of Outreach Activities	Value of Resources Leveraged by Grantee and Volunteers in the U.S. (U.S.$)
NCBA CLUSA	FY2016	1	1	0	2	$30
NCBA CLUSA	FY2016	5	12	1	18	$22,099.00
Total To-Date (Date):		**6**	**13**	**1**	**20**	**$22,129**