



## VOLUNTEER REPORT FORMAT

*To be submitted to CRS at the end of volunteer assignment and shared with the Host*

### 1.1 Assignment information

- a) Volunteer Name: Charles A. Brown, M.D. (Coffee Farmer From Hawaii, USA)
- b) Host Organization: Ethio-Wetlands and Natural Resource Association (EWNRA)
- c) Assignment: Help Farmers and Cooperative Staff improve Coffee Seedling Production and Planting Technique (SOW1), Help and Educate Staff with Reference to Soil Testing for Nutrients (SOW2)  
Host request: evaluate coffee processing facility (SOW 3)
- d) Dates of Assignment: In Ethiopia between June 17 and June 31
- e) Number of days worked at site: 9 days

### 1.2.1 Objectives

#### A ) for objective SOW 1 :

**Status: Progress, but work ongoing** I visited one farmer who had his own seed bed in shaded soil. While I fully respect his willingness to make this effort in general this technique is very difficult to do well (with good results) and is not recommended. This is because it is difficult to transplant tree without very significant root damage.

Otherwise, there is both the cooperative's nursery and a state run nursery. I visited the cooperative's nursery where they are currently using bare root technique with plans to use a bag technique in the future. Most likely I will help financially in obtaining some bags. The facility is maintained extremely well. So far one of the Wetlands staff who is an agronomist has shown interest in using technique of cone containers which I used successfully in personally planting over 4,000 trees on one of my two farms. I have several thousand of these cones and once suitable arrangements have been made will get them shipped to him to get started. I will also provide some organically approved liquid fertilizer to accelerate growth for a good sized plantable tree in 1 year from now. The host produced 10's of thousands of bare root seedlings last year and from somewhere has resources for adequate labor to do this. So I believe setting up 500 cones in an appropriate support structure and caring for them this coming year a reasonable objective. Fortunately, this correlates with seasonal timing since they are just getting their seedling beds ready now. This would be in the spirit of an experiment. It is inappropriate to digress into the advantages (and disadvantages) of this technique in this section however if interested see Appendix 1

**Impact:** I believe this technique would facilitate planting to the point that a yields will improve. It requires more seedling care however produces a perfect (if limited) root structure and makes it much easier to transport trees at planting time.

**Recommendation detail:** see Appendix 1, otherwise the conversion to bag technique already planned and being implemented should really help.

**Progress with the objective: Completed SOW part of Objective 1.** Site visits conducted on approximately 7 rather scattered farms throughout the region. During first meeting on day one several "challenges" were established by a long discussion moderated by CRS representative. So when visiting the farms this included discussion of multiple issues which included proper use of shade tree for coffee, natural organic means of soil improvement, etc. With the farmer present a careful inspection of roughly 100 trees which had been planted in the past few months was done. While



progressing out to planted sites a fairly careful evaluation of general management of coffee growing sites was accomplished. Deviations from recommended planting procedure apparent to me were respectfully corrected by me in the presence of the farmer. As aside, site visits included review of practical farmer issues such as weed control in addition to the main topic of year old seedling planting. The exception to this was that I did not discuss pruning with the farmers since the general shape of the tree seemed so different to me than my two farms that I really wasn't sure whether it was a varietal difference, shaded vs. open sun managed, or other factors such as pruning.

Impact: To be realistic I don't know the impact of this effort however the host's agronomist was hopeful that the visit from an outsider with reasonable credentials would correct some not recommended practices contributing to poor planting success.

While in the area Information regarding ideal planting technique was delivered two different meetings which totaled well **over 120 farmers**. It included all aspects of planting a tree. One of the two meetings included a practical demonstration. The farmers reported new tree planting failure rates between 20 to 35 %. My opinion is that about half of the failures are do to the difficulty of planting using the bare root technique. Pitfalls in process were emphasized. The agronomist and I agreed that hole should be refilled with 1/3. I really believe that the trees would do well (if in good condition when planted) without this step so didn't emphasize it. Again hard to judge impact however body language of farmers was encouraging and my subjective feeling that they were receptive to message. My translator fully understood the issues at hand so I think a good clear message was delivered. There is a lot of inertia in farming practice throughout the world (including my locality) however I believe this contributed to progress.

Details of presentation are available in form of a power point presentation by request. (not used, used flip chart with good translator), a brief summary and translation made available to appropriate farmers are also available on request.

Recommendations: Repeat this information to farmers when they are getting the seedlings next year, pass out translated information with trees. Otherwise I cannot think of anything really practical.

To be redundant, abandon bare foot planting in favor of container technique.

## **SOW 2 Plant nutrition and Principles of Soil Testing Education**

### **Status of objective: A good Start**

The use of standard synthetic fertilizer is prohibited here in an effort to maintain organic qualification and given the harsh reality that it is too expensive for use here. It of interest that organic fertilizer I am using on one of my two farms costs about \$1 per pound amounting well over \$1000 a year for 2 hectares.

So the use of optimal amounts of NPK for maximum yield is probably not possible. However, the compost pile can be amended to match the nutritional status of the soil. Two didactic sessions (power point) with this in mind were given to the staff, one on the value of soil testing and practical suggestions for responding to results and the other on the principles of the use of biochar.

A few soil samples were obtained and rather clumsily the agronomist and I ran a few tests.

There is insufficient sample size at this point to establish whether this will be practical for them until it has been done enough to know some results.

What I emphasized repeatedly is that simply measuring the pH and then encouraging farmer to mix some ash in with his compost (the only fertilizer available at this point) to keep the pH from going below 6.2 is very important. It matters little what nutrients are available if the pH is out of range.

Both the decay of organic matter and rapid growth tend to have acidic byproducts so ironically the better job one does with their soil management the more important it becomes to try to maintain the pH > 6.0

To be honest I am not confident the message was fully accepted but I know it was well understood. The reality is that creating and distributing compost to the trees is a tremendous amount of work. I did not see nearly the amount of piles of mulch/compost I would like to see on the farms that I visited. These farms are small (0.5) hectare, so it isn't impossible but very difficult. To put it in perspective I have the same problem on my organic farm of 2 hectares and I have equipment and labor to help. However, there is no other way in this situation and at least the agronomist understands this. So improvement in both the quality and volume of compost is needed here and I hasten to add almost everywhere.

A small number of NPK tests are now available here and the process of using them is well understood by the agronomist. I provided over 50 pH only kits as a start.

The problem of creating large amounts of high quality compost remains. Coffee skins, cow dung, and plants (cut down before presence of seeds). I suggested to the staff that they investigate the possibility of **making their own bone meal**. There is at least one slaughterhouse on the highway but at a distance. If they investigate this possibility thoroughly I would consider helping them financially. Also I have suggested that without more nitrogen fixing propagation optimal yields are not achievable other than an amount of mulching and composting that a single farmer would not be able to do even on these small plots.

- a) Recommendations<sup>1</sup>A difficult but obtainable goal would be to check 40-50 farms annually for PH of soil then give farmer feedback on value of placing ash in his/her compost.
- b) A simple device to instantly measure pH was provided by me and sufficient pH sampling kits to check its accuracy . of course this is predicated upon a the amount of work be the farmer to create an adequate compost pile and I would only say that farmers who do so be encouraged to put the compost around the trees that do not seem to be producing well. For now if they use to plant the new trees they will be off to a good start.

Another 20-30 farms should be measured for NPK and the farmer given feedback on results. Regardless of results encouragement to mulch around tree as rainy season ends should be given. I was told the average farm is 0.5 hectare so although extremely hard work is not impractical. Deficiencies in Nitrogen should inspire propagation of nitrogen fixing plants (see below) and in an ideal world phosphate and potassium can be helped with bone meal and banana peels respectively. This would all go into the compost pile to be distributed to trees in need.

## RESPONSE TO HOSTS REQUEST TO INSPECT PROCESSING FACILITY

(SOW3)

Progress with the objective: NONE

An unused mucilage water recirculation system lies unused due to major financial constraints. (Approx.. \$10K) ..... very disheartening for everyone.

The manager who I spent a few hours with is aware of biological filtration and I believe he could propagate the vetiver grass in the ditch he has immediately with help from the cooperative's nursery, which is excellent but underused in my opinion. A more complete and effective system could be designed and implemented later. I am not sufficiently expert in this matter of water treatment to advise on final solution but it will involve large amounts of grass so **why not begin now ?**

Another stop gap measure I think not out of financial reach for the coop as a whole would be to invest in an **air pump** of some kind to move contents of holding pond at end of ditch.

**Generally speaking it is cheap to pump air.** Any agitation of holding pond I believe would make a substantial difference in what is leaching back into the river.

**Please contact me at any time if any aspect of this report is unclear, etc.**

	Specific Action	Responsible person	By when
1. Identify Dilla University Faculty for Future Collaboration	Contact GIS Specialist	Mr. Taye Eshetu Mangesha	For Nitrogen fixing plant advice. Within next 6 months

### 1.4 Number of people Assisted

- a) Through formal training **over 120**
- b) Through direct technical assistance (Do not double count) **8**
- c) Out of these above, number of host staffs **6-8**
- d) Training/assistance by field

Category	Total	Males	Females
Members/ owners	122	105	17
Employees			
Clients/ Suppliers			
Family Members			
Total	122	105	17

### 1.5 Gender



**Women's issues:** In keeping with the general policy of considering women's issues I was introduced to a women's cooperative and have agreed to make a **significant donation** to assist them in the construction or furnishing of a small administrative building. Proper channels will be used for this I have designated one of the staff to be responsible and he has accepted it. The administrator of the host is" in the loop."

- a) What gender roles did you recognize in your host community? Did these roles play a part in your assignment? No Gender disparities were not assessed in any way.. This project focused other issues. I felt there was a reasonable proportion of women at the training sessions and did not see any lack of respect etc.
- b) How might CRS or the host organization improve opportunities for the women in this host or host community? This is beyond the scope of my SOW,'s. See above re donation.

1.6 Value of volunteer contribution a.

My intent is to have this total approximately \$2K

- a. Hours volunteer spent preparing for assignment: 40 plus hours
- b. Estimated value of all material contributions volunteer contributed to host during assignment: minimal

1.7 Value of hosts' contribution in \$ (Please consult the host as well)

- a) Meals daily lunch
- b) Transportation- please consult the host for me on this matter
- c) Lodging- provided by CRS
- d) Translation- one of the host staff actively translating for at least 30 hours- also translated a page of didactic material for me

1.8 Host Profile Data:

Did you obtain any data that supplements or corrects the data in the existing host information as detailed in the SOW? No. basic water quality monitoring equipment (pH meter, conductivity meter, etc.) would assist host organization with development and analysis. Also need to send one specimen for laboratory analysis and tissue sample analysis for multiple reasons ..... I will help with financial aspect of this.

1.9 Recommendations for CRS: Provide host organization with equipment mentioned in Section 1.8. In addition, funds for more sophisticated soil samples including one leaf (tissues) sample a year would be very helpful. (As above) Any help you can provide for correcting glaring problem with coffee processing facility would be good,

1.10 Press Release:

**FOR IMMEDIATE RELEASE**

**CONTACT: Charles A Brown MD**

Wailapa Farms  
808 640 2944



konacoffeemon@yahoo.com

## **South Kona Farmer Area Volunteer Headed for Ethiopia to Share Skills with Local Farmers**

### **Farmer to Farmer program promotes economic growth and agricultural development in East Africa**

**Captain Cook, HI 6/15/2016** –Charles Brown MD, a retired general surgeon from Captain Cook with a decade of farming experience will travel to Ethiopia for 3 weeks to share his technical skills and expertise. His assignment is part of Catholic Relief Services' Farmer-to-Farmer (FTF) program that promotes economic growth, food security, and agricultural development in Africa.

“Definitely I will learn as much as I teach, however I think I can help by setting up some experiments with them so they can determine what is best for their particular climatic and economic situation,” said Charlie.

Funded by the U.S. Agency for International Development (USAID), the five-year program matches the technical assistance of U.S. farmers, agribusinesses, cooperatives, and universities to help farmers in developing countries improve agricultural productivity, access new markets, and increase their incomes.

In Ethiopia, he will work with a coffee farmer's cooperative with a focus on planting techniques and sustainable soil management.

Charlie's volunteer assignment is one of nearly 500 assignments that focus on agriculture, food security and nutrition in Ethiopia, Tanzania, Kenya and Uganda. This is the first time CRS has been involved in the 28-year-old Farmer-to-Farmer Program funded by the U.S. government.

CRS is partnering with four U.S. institutions to tap into the rich diversity of the U.S. agriculture community: the National Catholic Rural Life Conference, Foods Resource Bank, National Association of Agricultural Educators, and American Agri-Women.

The U.S. volunteers will travel to East Africa for anywhere from one to six weeks, their expenses covered by USAID.

“One thing we are certain of is that this program will be beneficial not just to the farmers in East Africa, but also to the volunteers from America,” said Bruce White, CRS' director for the program. “It's going to make the world a little bit smaller for everyone involved.”

For more information, visit [\[url\]](#).

###



***Catholic Relief Services** is the official international humanitarian agency of the Catholic community in the United States. The agency alleviates suffering and provides assistance to people in need in nearly 100 countries, without regard to race, religion or nationality. For more information, please visit [crs.org](http://crs.org) or [crsespanol.org](http://crsespanol.org).*

**VOLUNTEER CONTACT:**

Charles A . Brown  
Wailapa Farms  
Hawaiian Sunrise Farm  
Captain Cook , Hawaii USA  
96704  
[konacoffeemon@yahoo.com](mailto:konacoffeemon@yahoo.com)  
USA 808 640 2944

# # #

***Catholic Relief Services** is the official international humanitarian agency of the Catholic community in the United States. The agency alleviates suffering and provides assistance to people in need in nearly 100 countries, without regard to race, religion or nationality. For more information, please visit [crs.org](http://crs.org) or [crsespanol.org](http://crsespanol.org).*