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: Julie Miranda Longland
b) Host Organization: Ethiopian Catholic Church – Social Development Coordination Office of Harar (ECC-SCDOH), Chiro branch. It is linked with as well as Resilience through Enhanced Adaptation, Action-Learning, and Partnerships (REAAP)
c) Assignment: ET-58 Integrated Pest Management (IPM) in Agriculture
d) Dates of Assignment: October 2 – 16, 2015
e) Number of days worked: 11 days

1.2.1 Objective 1 in SOW: "Provide training and directly technical assistance on integrated pest management (IPM) techniques and practices"

a) Progress with the objective: Training on integrated pest management (IPM) techniques and practices was provided to 163 people. These were the 2-3 hour training sessions:
    - October 8, 2015 morning: Tulo Woreda - Kire Kufis Kebele for local farmers
    - October 8, 2015 afternoon: Tulo Woreda - Burka Kebele for local farmers
    - October 9, 2015 morning: Tulo Woreda Agriculture Office in Hirna for woreda agriculture experts
    - October 9, 2015 afternoon: Odalbultum Woreda Agriculture Office in Bedessa for woreda agriculture experts
    - October 10, 2015 morning: Odalbultum Woreda – Oda Biyo Kebele for local farmers
    - October 12, 2015 morning: Odalbultum Woreda – Seke-Riga Kebele for local farmers
    - October 13, 2015 morning: West Hararghe Zonal Agriculture Office in Chiro/Asebe Teferi for zonal agriculture experts
b) Expected impacts/results:
    - Farmers increased their understanding of:
        - How observations can help them determine how, when, and where pest problems are developing in the field.
        - Management practices available to them at little or no cost which reduce pest problems, especially when used in combination with other practices.
    - Farmers and agriculture experts were very interested in learning how to prepare and use homemade pesticides (soap spray, tomato leaf spray, and garlic spray) as well as how to save vegetable seed (tomato, pepper, pea/bean, and pumpkin/squash).
    - Agriculture experts heard different suggestions on how to encourage farmers' adoption and increase their understanding of an IPM approach, e.g. using body health analogy for crop health.

c) Recommendations[1]:

[1] ***Note:*** Only make not more than 6 recommendations. The most useful recommendations for hosts are ones that they can implement themselves with minimal expense. For example, a cooperative might change its financial reporting procedures or hold more regular meetings of its board. Broad

- When farmers decide to harvest crops before maturity in order to feed livestock, they should space the plants they cut (rather than clear-cutting a whole section) to give the remaining plants a chance to grow more and compensate. The farmers could also select the plants that are already infested, e.g. plants with stalk borers, to feed to their animals instead of healthy, uninfested ones.
- Farmers should prepare and use homemade pesticides, a safer and cheaper alternative to manufactured chemical pesticides, to manage insect pests. Agriculture experts should share how to do this with other farmers.
- Farmers should save their own vegetable seed as an alternative when seed is not available or too expensive to purchase, and agriculture experts should share how to do this with other farmers.

1.2.2 Objective 2 in SOW: "Identify and document the major pests and its management technique"

a) Progress with the objective: Various people shared their observations in the field and/or what problems farmers had described. This included CRS staff, ECC-SCDOH staff, zonal and woreda agriculture experts, and farmers themselves. Two fields within Tulo Woreda were visited on October 7, 2015 to scout for pest problems. Major pest problems observed or described included stalk borer, cutworm, anthracnose, and smuts. Other problems included parthinium, downy and powdery mildew, aphids, thrips, scale insects, late blight of potato/tomato, viral diseases, and in particular, drought stress. Crop rotation and intercropping are common practices. Some farmers have intermittent access to "improved" seed and pesticides. Manual tillage is also practiced, but reduced or zero tillage is being promoted in the area. Zonal experts also described pilot projects of "push-pull technology," which involves intercropping with a repellent plant that repels pests in combination with planting a trap crop which will be more attractive to them, thus, drawing pests away from the real crop of interest.
b) Expected impacts/results: This information was used to prepare training for the farmers and agriculture experts. It could also be added to the background on production and crop protection for future SOW's in Ethiopia.
c) Recommendations: See 1.2.3 and handout for pest management recommendations.

1.2.3 Objective 3 in SOW: "Make recommendations of possible solutions that suited to the identified pests and agro-ecology"

a) Progress with the objective: Training for management of specific pests focused on stalk borer, cutworm, anthracnose, and smuts.
b) Expected impacts/results: Farmers and agricultural experts have a greater appreciation for the role of weed control, crop rotation/intercropping, and managing previous crop residues in reducing pest pressure in the field and stop cycles of continual infestation season after season.

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recommendations on tax or credit reform, changes in government policy, or investment in large-scale equipment, are usually not within the host organization's reach.

Farmers and agricultural experts practice or promote good sanitation practices to stop or slow the spread of pest problems within the field.

c) Recommendations:

- Farmers should practice better weed control, crop rotation/intercropping, and removal of previous crop residues to reduce incidences of stalk borer, cutworm, anthracnose, and smuts.
- Farmers should make observations to determine pest presence in the field and practice good sanitation to reduce the spread of problems such as stalk borer, anthracnose, and smuts.
- ECC-SDCOH and REAAP should assist in distributing the reference handout created to agriculture experts and farmers, and agriculture experts should share with other farmers in their areas.

1.3 Action Plan

Recommendation	Specific Action	Responsible person	By when
1. If farmers are going to harvest crops before maturity to feed livestock, they can make better decisions of which plants to cut.	Space the plants to cut to give the remaining plants a chance to grow more and compensate for the yield loss. Select plants that are already infested so that they are removing the weaker plants as well as reducing the overall pest population in the field.	Farmers	By the end of this growing season
2. Use homemade pesticides as a safer and cheaper alternative to purchasing manufactured chemical pesticides.	Farmers try preparing and using the homemade pesticides suggested. Agriculture experts share instructions with other farmers.	Farmers, Agriculture Experts	By the end of next season
3. Save vegetable seed as an alternative to when seed is not available or too expensive to purchase.	Farmers try saving their own seed. Agriculture experts share instructions with other farmers.	Farmers, Agriculture Experts	Before next season
4. Farmers should practice better weed control, crop rotation/intercropping, and removal of previous crop residues to reduce incidences of stalk borer, cutworm, anthracnose, and smuts.	Farmers manually pull or use tillage to remove weeds and crop residues, particularly several weeks before planting. Farmers rotate crops grown in field or plant alternate rows with a different crop.	Farmers	By the end of next season
5. Farmers should make observations to determine	Farmers and agriculture experts make observations to determine	Farmers, Agriculture	By end of the next

pest present in the field and practice good sanitation to reduce the spread.	pests present in the field. Farmers examine seed before planting and only plant healthy-looking seed without diseases (e.g. anthracnose or smut). Within the first 6 weeks of planting, if farmers observe stalk borer damage, they pull out the "dead hearts" of these plants and destroy them (This practice can also help reduce later incidences of anthracnose). If farmers observe smuts, they remove infected parts, carefully collecting them in a bag to not spread the fungus more, and burn them. Agriculture experts share these practices with other farmers.	Experts	season
6. Distribute handout to agriculture experts and farmers.	Julie Longland to e-mail handout to hosts and agriculture experts' e-mails she received. ECC-SDCOH and REAAP distribute and translate into local language if needed.	ECC-SDCOH, REAAP	End of November 2015

1.4 Number of people Assisted

a) Through formal training: 163
b) Through direct technical assistance (Do not double count): 0
c) Out of these above, number of host staffs: 3
d) Training/assistance by field

Category	**Total**	**Males**	**Females**
Members/ owners	135	83	52
Employees	28	15	13
Clients/ Suppliers			
Family Members			
Total	163	98	65

NOTE: Experts from Tulo Woreda, Odalbultum Woreda, and West Haraghe Zone were considered "Employees" whereas farmers in the training were considered "Members/owners."

1.5 Gender

a) What gender roles did you recognize in your host community? Did these roles play a part in your assignment? How?

As in many cultures, women were the primary caregivers for children and the family in general, and they do a lot of the work in the field. Their concern for future generations was used as an appeal to consider the environmental-friendly aspects of using an integrated pest management approach. When discussing pesticides, keeping children (e.g. babies with nursing mothers) and livestock away from where pesticides had been sprayed or applied was also mentioned. This was also highlighted as an advantage of the safer, homemade pesticides. Also, using crop protection and integrated pest management as an analogy to your body, e.g. keeping your crop strong and healthy and understanding all the possible reasons it may get "sick," seemed to work better as an analogy for them.

The women farmers in attendance were sitting separately from the men, often on the outskirts of the training group. One woman farmer even pointed out the disparity on the point of equal access. Whenever possible, I tried to include them, including them in my gaze and moving to speak closer to them. When speaking, the Tulo Woreda agriculture expert Kemal Abdulahi, who did most of the translating for me, seemed to direct most of his attention to the men.

The majority of men in the training sessions were chewing the local drug plant chat, and very few of the women were. This likely affected their concentration. One woman farmer included chat as one of the reasons she thought men were lazy farmers.

b) How might CRS or the host organization improve opportunities for the women in this host or host community?

Women seemed to be more comfortable speaking around women or participating in training groups with mostly women. Seeing more women speaking up in discussions or in roles of leadership (e.g. me as the trainer or one site had a female as the local facilitator) would also help.

1.6 Value of volunteer contribution in $

a. Hours volunteer spent preparing for assignment: 40
b. Estimated value of all material contributions volunteer contributed to host during assignment: $0

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

a) Meals: Breakfast at hotel in Chiro/Asebe Teferi (~7 days) and lunches when in the field (~4 days)
b) Transportation: Vehicle and driver from Chiro/Asebe Teferi to Dire Dawa on October 15, 2015
c) Lodging: Hotel in Chiro/Asebe Teferi (9 nights)
d) Translation: Tulo Woreda agriculture expert Kemal Abdulahi did most of the technical translation, West Hararghe REAAP/DRR Coordinator Wondiye Mulugeta also did some translation
e) Other (Specify)

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? Please list it.

See additional information in 1.2.2.

In times of low rainfall, farmers choose to plant sorghum over maize since the varieties are more drought-tolerant. Also, farmers frequently chose to harvest large sections of sorghum and maize prior to maturity in order to feed their livestock during the drought.

Farmers in Odabultum plant some tall varieties as a barrier for keeping out livestock and as a windbreak. This is a good example of physical controls that are part of an IPM approach.

1.9 Recommendations for CRS:

This assignment occurred during the late part of the growing season for maize and sorghum (October 2015). While we were able to address the major pest problems observable now, farmers in Kire Kufis Kebele and the Tulo Woreda agriculture experts expressed interest in having technical assistance in identifying and making recommendations for earlier season pests, i.e. March-April. However, if this does occur, West Hararghe REAAP/DRR Coordinator Wondiye Mulugeta said that CRS would need to provide a translator from Addis Ababa and a coordinator to accompany the volunteer as his staff is too small and already overworked to provide this support.

Training was severely restricted by the host's lack of budget, vehicle/driver, and Wondiye Mulugeta's availability. There was a lot of concern about having to pay a per diem for each of the participants who would attend (especially for the zonal and woreda-level governmental experts) and, therefore, the length of the training was also shortened to approx. 2 hours. These concerns also limited attendance to about 10 experts/location, whereas the head of the agriculture office in Tulo Woreda said that he could think of 40 or more experts that would really benefit from the training. Of the participants who did attend, many were most engaged in the question and answer period, which had to be very brief because of the time constraint, and feedback from every group was that 2 hours was far too short. As a volunteer, I would have been happy to conduct longer training sessions or extend the ones we had. Also engaging more with the farmers and experts on their specific pest problems are the best opportunities to check for understanding of the topics covered, and the personalized time helps them to see how IPM could work for their individual situation. If technical assistance is provided with this host again, the budget, vehicle/driver, and coordinator time should be completely outlined and agreed upon before the volunteer arrives. Also, I think that a greater proportion of the training should be focused on training the experts, possibly even over the smallholder farmers. The experts would be able to disseminate the information more widely, and they would be better positioned to drive adoption of whichever technologies were more appropriate to that specific kebele.

There appeared to a lack of or mis-communication somewhere between CRS, ECC-SDCOH headquarters, and the local partner. Decisions, responsibilities, and expectations were discussed several times in different groups, but the confusion would have been minimized if all of the stakeholders – particularly those who are charged with the actual implementation - had been in the same meeting at the same time. This recommendation appears to be along the same lines as one offered in the report by Dr. Michael Colegrove in April 2014.

In addition to the flipchart, a portable whiteboard and markers could be also be handy for questions in training or just writing down websites and contact information for interested participants.

If possible, CRS should consider finding alternate hotel options in the Chiro/Asebe Teferi area for volunteers to stay in while there is construction going on at Kebesh. The construction was very loud (including at night), and there were several, possibly-related water issues, i.e. including a few days without running water. F2F volunteers can be adaptable, but packing

recommendations should include earplugs, and volunteers should know to expect extended power/water outages.