 

**Farmer to Farmer East Africa**

**Volunteer Assignment Scope of Work**

**NOTE: THIS SCOPE OF WORK IS A DRAFTR AWAITING EDITS.**

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| **Assignment Summary** | |
| **Assignment Code** | **UG50** |
| Country | Uganda |
| Country Project | Maize and Oil seed crops |
| Host Organization | None – Administrative assignment |
| Assignment Title | Pesticide issues and safety assessment for Uganda F2F country projects |
| Assignment objectives | * Conduct an assessment of pesticide safety along pesticide life cycle i.e. (policy, purchase, transport, use and disposal) * Identify and document the major constraints to safe use of pesticides in selected F2F country projects * Make recommendations of possible solutions to the constraints identified * Update country specific list of approved active ingredients (AIs) for selected country projects * Upgrade and/or document recommended integrated pest management practices in F2F project areas in Uganda |
| Desired skills | Agronomist/Toxicologist with expertise in conducting assessments in safe use of crop protection products |
| Preferred Assignment dates (flexible) | June-August 2015 |

1. **Background**

The Farmer-to-Farmer (F2F) East Africa program leverages US volunteer’s expertise to assist small holder farmers and small scale processors in East Africa to improve their business practices through volunteer assignments conducted with host organizations. Through F2F, CRS will improve the livelihoods and nutritional status of significant numbers of low income households by: i) broadening their participation in established commodity value chains as producers and service providers; ii) strengthening community resilience to shocks such as droughts, that adversely affect livelihoods; and iii) preserving/enhancing natural resources upon which most rural communities depend. As an important corollary result, through the program CRS will also increase the American public’s understanding of international development programs and foster increased cross-cultural understanding between host countries and US volunteers.

The CRS Uganda country program is implementing two country projects under the F2F; Maize and oil seed crops.

Maize:

In Uganda, maize has become a major part of the farming systems, ranking first in importance among the main cereal crops (maize, millet and sorghum) grown in the country. Small-scale farmers have traditionally cultivated maize for food and for income generation. Uganda’s maize yield levels are low ranging between 1.0 and 1.8 metric tons/hectare. There is however great potential to increase the profitability and productivity of maize through smallholder farmers, by improving farmers capacity through enhancing their post-harvest handling, storage and marketing practices

There are several constraints in the maize value chain, limiting the productivity and ability of smallholders to earn incomes from maize production. These include little producer knowledge of good agronomic practices, limited access to improved varieties of seed maize, high post-harvest losses, weak producer associations, deteriorating land resources, poor market linkages and credit access.

Oil seed crops:

Uganda considers oilseed crops as one of several strategic commodities to spearhead the transformation of the agriculture sector from subsistence to commercial farming. The government strategy is to increase production of raw materials including increasing the production of sunflower and groundnuts. Developing the oilseed crops subsector supports Uganda’s agriculture strategy, increases smallholder incomes and strengthens Uganda’s position among regional markets. Moreover, oilseed crops improve household nutrition in addition to being lucrative cash crops. The F2F Uganda oilseeds project target groundnut, soybean and sunflower value chains.

Recent data indicates that Uganda’s edible oil demand stands at 120,000 MT against a production capacity of 40,000 MT, resulting in a deficit of 80,000 MT annually. Uganda’s high edible oil demand is due to its varied usage throughout the country. Vegetable oil is not only used for domestic cooking, but also for commercial baking, the food service industry and the manufacture of detergents. Vegetable oil demand has continued to outstrip supply, forcing the country to rely on imports.

There are several constraints to oil seed crops value chain identified limiting the productivity and ability for smallholders to earn incomes from oil seed crops farming including lower producer knowledge of proper agronomic practices, limited accessibility to improved varieties of seed, high post-harvest losses, weak producer associations, deteriorating land resources, poor market linkages and credit access.

1. **Issue Description**

In Uganda, the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF) department of crop protection has a relatively developed agro-chemical regulatory systems and policy in place. This is not well reinforced, making it extremely difficult to exercise proper controls over the sale and use of banned and severely restricted pesticides, whether the ban is in the country of origin or in Uganda itself. Pesticides are popular with farmers because of their quick and effective action against target diseases and pests. However it is now accepted that the risk to human lives and the environment are so great that there is need for caution in use of the pesticides. In Uganda, cases of farmers reusing pesticide containers are rampant. These containers are used to carry milk and water. Cartons used to wrap pesticides are also used extensively to carry various items including foodstuff, leading to risk to the people. Some farmers do not use any personal protective equipment during spraying and also carry out the spraying in presence of children, hence exposing themselves and the children to serious chemical hazards. This increases the chances of contamination as a result of drift or rainfall run off from the field with the environmental consequences to aquatic flora and fauna, together with human health.

Pesticides are widely used in agriculture and livestock production to prevent or control pests, diseases, weeds, and other plant pathogens in an effort to improve health, reduce or eliminate yield losses and maintain high product quality. Although pesticides are developed through very strict regulation processes to function with reasonable certainty and minimal impact on human health and the environment, pesticides use raises concerns regarding health risks from the exposure of farmers when mixing and applying pesticides or working in treated fields and from residues on food and in drinking water for the general population. Due to lack of robust control mechanisms, Uganda’s exports rank poorly against other competing countries on their record of compliance with international standards, damaging the reputation of all Ugandan exporters in the process.

In general pesticides and herbicides safe-use and instructions are usually included in the manufacturers’ labels. In most cases, they are written in scientific and foreign languages difficult for low literate farmers in Uganda to understand. This combined with lack of proper measuring equipment’s puts doubt as to whether recommended doses are applied in small scale farming agro ecosystems. Overdoses may be applied and this leads to contamination of the natural ecosystems. When a pesticide is used, there is always a probability that some of the product will contaminate an area outside the targeted area, due to either negligence or insufficient knowledge by the user. Spray far from target without considering the possibility of drift in windy weather, and careless preparation of mixture can lead to environmental contamination. Pesticide and herbicide mixtures transferred without use of funnels, make spillage and splashes almost unavoidable. Workers spraying with and against the wind increase the possibility of inhaling pesticides. Poor conditions for storing and transporting pesticides and herbicides may lead to accidental spills. Inappropriate techniques for disposing of empty packaging, excess mixtures or expired products all pose serious hazards to humans and the environment both in the short and long run.

In the East Africa region,farmers face even greater risks of exposure due to proliferation and use of toxic chemicals that are banned or restricted in other countries, incorrect application techniques, poorly maintained or totally inappropriate spraying equipment, inadequate storage practices, and often the reuse of old pesticide containers for food and water storage. Exposure to pesticides poses a continuous health hazard, especially in the agricultural working environment. By their very nature most pesticides show a high degree of toxicity because they are designed to kill certain organisms and thus create some risk of harm. Within this context, pesticide and herbicide use has raised serious concerns not only of potential effects on human health, but also about impacts on wildlife and sensitive ecosystems

1. **Objectives of the Assignment**

CRS Uganda F2F Country program is undertaking this pesticide and herbicide safety assessment to gain a better understanding of key constraints to safe use of pesticides and possible solutions, which the F2F program shall address through future volunteer assignments. The F2F volunteer pesticide expert shall conduct the assessment of pesticide and herbicide safety in Uganda with the following objectives;

* Conduct an assessment of pesticide safety using pesticide life cycle i.e. (policy, purchase, transport, use and disposal)
* Identify and document the major constraints to safe use of pesticides in grain and horticulture project description areas
* Make recommendations of possible solutions to the constraints identified
* Update country specific list of approved active ingredients (AIs) for both F2F grains and horticulture country projects
* Upgrade and/or document integrated pest management practices for F2F in Uganda

The assessment shall be conducted through literature review, interviews with knowledgeable sources e.g. Crop protection department (MAAIF), National Environmental Management Authority, Uganda National Agro Inputs Dealers Association (UNADA) other international organizations engaged in agriculture development, USAID and Feed the Future Implementing partners, Agro-input importers, distributors and retailers, etc. This information will further be collaborated and verified by going to the field to gather data and make observations firsthand.

This assessment shall discuss and analyze the following topics/issues:

1. **Pesticide Governance**

* How are pesticides registered/approved for use in the country?
* How often is the list of registered pesticides updated?
* Does government conduct compliance checks at supply dealers and markets?
* Does government train extension officers, applicators, or farmers in safe pesticide use and IPM?
* Does government produce and distribute information on IPM?
* Does the private sector provide information on safe use and IPM (do pesticide dealers provide support to applicators/farmers?)
* Does government adequately regulate import, distribution, use, and disposal of pesticides?
* How are obsolete pesticides dealt with in the country?

1. **Sources of Pesticides in the Country**

* Pesticide importation (governance issues, cross border trade and control, etc.)
* Legal v. illegal sources
* Main countries and companies importing pesticides into the country
* Local manufacture of pesticides

1. **Local Pesticide Trade**

* Main pesticide dealers in the country
* Types of locations where pesticides are bought/sold (large agro-input supply dealers, local markets, etc.)
* Availability of pesticides (low toxicity, different classes)
* Pesticide dealers/agro-input supply dealers and their knowledge of pesticides; are they trained, and do they receive continuous training?
* Sale of counterfeit pesticides, pesticides that are repackaged, pesticides without labels
* Do agro-input suppliers carry Personal Protective Equipment (PPE)? If not, why not?
* Do agro-input suppliers carry replacement parts for application equipment and are they knowledgeable about using the equipment, including calibration?
* Are pesticides repackaged before sale to small holders

1. **Pesticide Use**

* Accessibility of PPE: Do applicators/farmers use PPE? If not, why not?
* Does the country have a program to certify applicators?
* Do farmers apply pesticides on their fields or do they use trained applicators?
* Are pesticides generally used for the recommended purposes?
* Do applicators use recommended equipment?
* Are applicators knowledgeable about calibration maintenance of application equipment?
* Range of coverage and knowledge of extension officers
* What is the level of farmer knowledge about selecting, applying, storing, mixing, monitoring, and disposing of pesticides? Where do they get their information about pesticides?
* Is this knowledge expressed in safe use and handling behaviors
* Are farmers familiar with and use IPM? Where do they get their information about IPM?
* How do farmers/applicators typically dispose of unused pesticides and containers?
* How do farmers/applicators clean and store application equipment?
* How do farmers/applicators store unused pesticides?

1. **Findings and Conclusions**

* Analyze the situation for pesticide use and safety in the country and identify key findings.

1. **Recommendations**

* Based on findings and conclusions, provide recommendations to the F2F Program, including recommendations that F2F could implement using volunteers; recommendations that F2F could suggest to the USAID Mission; and recommendations directed at government, private sector, and others
* Recommend change to recommended pesticides list in Uganda PERSUAP report

1. **Anticipated Results from the Assignment**

* Improved understanding of country level pesticide policy and governance in Kenya
* Recommended list of pesticides active ingredients in the project consistent with Uganda and PERSUAP regulations
* Improved understanding of the status of safe use and handling of pesticide in project area with regards to trade, on farm handling, use and disposal
* Recommended safe use and handling practices of pesticides
* Options for IPM to reduce pesticide use in the project
* Recommended future volunteer assignments consistent with PERSUAP guidelines

1. **Schedule of Volunteer Activity in Kenya**

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| **Day** | **Activity** |
| Day 1 | Travel from home to US international airport |
| Day 2 | Arrival in Uganda at the Entebbe International airport,. The volunteer will be picked form the airport by a designated cab and driven a hotel to be communicated before arrival in Uganda |
| Day 3 | At 10.00 am the volunteer will be picked to the CRS office where she/he will be provided briefing materials (welcome package), and briefed on assignment  Afternoon: Meeting with USAID – Mission in Kampala: Discussion of most current USAID PERSUAP and other guidelines |
| Day 4, 5 and 6 | Meeting with Ministry of Agriculture, Feed the Future implementing partners, and other key informants, Agro-input manufacturers and agro-input importers |
| **Day 7** | **Rest day** |
| Day 8-9 | Pest-control and regulatory body- UNADA |
| Day 10-13 | Field visits with farmers, agro-input suppliers etc. |
| **Day 14** | **Rest Day** |
| Day 15-16 | Field visits with farmers and other relevant stakeholders |
| Day 17-20 | Compiling assessment report |
| **Day 21** | **Rest Day** |
| Day 22 | Present the assessment report to CRS, USAID and select relevant stakeholders  Finalize assignment trip reports and Depart for the US |

1. **Desirable Volunteer Skills**

* Agronomist/Toxicologist with expertise in conducting assessments in safe use of crop protection products
* Good writing and communication skills
* Prior experience in conducting such assessment is desirable
* Can easily and readily adopt to challenging environments

1. **Accommodation and Other in-Country Logistics**

In Kampala, the volunteer will stay at Fairway Hotel & Spa ([www.fairwayhotel.co.ug](http://www.fairwayhotel.co.ug)).

CRS will pay for hotel accommodation, and provide the volunteer with per diems to cater for meals and other incidentals. The volunteer may get an advance, which will have to be cleared before departing from Uganda. A CRS F2F staff member will accompany the volunteer while conducting this assessment.

For more information, please refer to the country information that will be provided.

1. **Recommended Assignment Preparation**

CRS-F2F designs assignments with the assumption of some pre-departure preparation by the volunteer. Actual preparation time will vary based on the experience of the volunteer, as well as informational or training resources the volunteer has readily available. CRS relies on the volunteer to assess the tasks outlined in this SOW and to make his or her own judgment about how much and what kind of preparation is needed prior to arriving in Uganda.

For this specific assignment, the following documents shall be provided to the volunteer prior to arrival in the country;

* Initial environment evaluation and programmatic pesticide evaluation report and safer use action plan (PERSUAP) – July 2015 (or a modern version)
* Maize country project
* Oil seed crops country project
* Any other materials as may be deemed necessary for the assignment preparation. The F2F project director in Uganda will work closely with the volunteer during the assignment preparation stage.

1. **Key Contacts**

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