 

**Farmer to Farmer East Africa**

**Volunteer Assignment Scope of Work**

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| **Summary Information** |
| Assignment Code  | KE39 |
| Country | Kenya |
| Country Project | Horticulture |
| Host Organization | Stawi Foods and Fruits Company |
| Assignment Title | Development of new nutritious products for Stawi Foods & Fruits Company |
| Assignment preferred dates | June – August, 2016 |
| Type of volunteer assistance: | Technology transfer (T) |
| Type of value chain activity: | Processing (P) |
| Assignment objective | Advise in the formulation and development of new nutritious products |
| Desired volunteer skills/ expertise | Food scientist/technologist with food formulation and product development expertise |

1. **Background**

The Farmer-to-Farmer (F2F) East Africa Program leverages US volunteer’s expertise to assist small holder farmers, small scale processors, farmer cooperatives and micro finance institutions 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 participation in established agricultural 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. 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.

Stawi Foods and Fruits Limited is a food processing business based in Nairobi, and is primarily involved in milling of nutritious porridge flours that are sold in the Kenyan market. These include the following:

* **Banana Flour**: Banana flour is nutritious and used mainly in baking of cakes, bread and making pizza. Stawi Banana Flour is made from processed green bananas which are sourced in Meru.
* **Nurture Junior**: Nurture Junior is precooked and fortified porridge flour that contains adequate supplies of protein, carbohydrates and minerals for infants and children. It is formulated for during and after weaning as it contains all the nutrients a baby needs during early growth and it is easy to prepare. Nurture Junior contains a blend of whole maize, fat free soya, millet, wheat and milk
* **Nurture Family**: Nurture Family is pre-cooked and fortified porridge flour that is formulated to cater for the nutritional requirements of the whole family regardless of age or gender. It is made of a blend of whole maize, millet, sorghum, amaranth and fortified with vitamins and minerals.

Though the company has made significant progress in providing a market for over 200 small scale farmers in Meru, and a value addition for bananas, it lacks capacity in product formulation and development. Among the staff and management of Stawi, none has professional training in food technology, although they have received some on-job training through a partnership with the USAID funded, Kenya Horticultural Competitive Project. Therefore, the company management has approached CRS for expertise in product formulation and development.

1. **Issue Description**

Stawi Foods and Fruits limited is interested in developing its banana flour product further into ready to use/stand-alone gluten free baking flour, as well as other gluten free baking mixes that will be sold in bulk to baking industries and bakery and pizza chains in Kenya, as well as for the export market. However, the company lacks appropriate knowledge and skills in specific banana products formulation and development. The company carried out a simple market survey and their clients specified that they would buy baking flours that fit the following criteria:

* low-carbohydrate, no-grain and fairly high protein
* high Resistant Starch or good Gyxemic Index
* foods that absorb in the body slowly

Stawi Foods and Fruits would like to expand its business and exploit opportunities through development of new nutritious products that have significant completive advantage. The majority of Kenyans in urban centers prefer instant nutritious foods to ensure good health and minimize energy and time for food preparation.

It is against the above background that the company has requested CRS for an expert in product formulation and development to train the production staff and facilitate the development of new nutritious products for their customers.

1. **Objectives of Assignment**

The objective of this assignment is to advise Stawi Foods and Fruits company staff in the formulation and development of new nutritious products such as ready to use/stand-alone gluten free baking flour plus additional gluten free baking mixes that will be sold in bulk to baking industries in Kenya and flour mixes to make gluten free cakes, pastries, bread and pizza in other countries. The flour mixes will be sold either in small packets of 500 gram and 1 kg to bigger sizes of 50 Kgs for business buyers. Some of the ingredients that will be used by the expert in developing new products include but are not limited to the following:

* Banana flour
* Pulses
* Teff flour
* Brown rice
* White Sorghum
* Soya and any other ingredients that the experts will recommend

Specifically, the technical expert will support the following activities:

* Review Stawi Foods and Fruits company production potential for food formulation
* Facilitate analysis of the ingredients
* Determine mixing ration for the new products
* Develop product mix guidelines
* Conduct training on principles and best practices in food formulation
* Conduct targeted training for staff on sanitation, proper handling and storage of processed products
* Provide recommendations for production improvements
* Recommend potential follow-on assignments to fill gaps

**Host contribution**–Stawi Foods & Fruits Company will mobilize a selected team for the trainings to be conducted by the CRS F2F volunteer. Also the company staff will be available for the training in addition to working closely with the volunteer, during the preparations and actual trainings. The organization will provide local transport for the volunteer, training venue as well as meeting the participants travel and other related training costs.

1. **Anticipated Results from the Assignment**

The anticipated results from this scope of work include:

* Production team trained on new product formulation and development
* Formulated and developed new products in place
* Guidelines on the product development process developed
* Presentation on importance of formulated nutritious products
* Assignment related photos
* Debriefing with USAID and in country group presentations after assignment
* Volunteer feedback
* Field trip report written, outreach activity conducted in Kenya and outreach in the US (press release and media event).
1. **Schedule of Volunteer Activities in Kenya**

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| Day | Activity |
| Day 1  | Leave US |
| Day 2 | Arrival into Kenya. The volunteer shall be met by a cab driver, who will have a placard bearing **CRS logo**, and who will wait at the arrivals section with the placard displaying the volunteer name. The volunteer will be driven to **AACC guesthouse** or another hotel to be communicated prior to arrival. |
| Day 3 | Briefing meeting at CRS offices with CRS F2F staff and become fully briefed on logistics and itinerary of trip. Discuss anticipated outcomes and work plan, prepare any handouts |
| Day 4 | Introduction of the volunteer by CRS staff to Stawi Foods & Fruits company. Review the main objectives of the assignment and adjust the agenda for the coming days |
| Day 5 | Visit the facility to get more understanding of the processing equipment and review the company documents and any other relevant document |
| Day 6 | Visit selected consumers of the company products |
| Day 7 | Day off |
| Day 8 & 9 | Meet with Stawi Food and Fruits Company production team to review nutrition composition of the various raw materials based on their analysis Determine mixing rations for various products to be developed  |
| Day 10 - 13 | Facilitate training, formulation and development of new nutritious products Develop of formulation guidelines for the new products |
| Day 14 | Day off  |
| Day 15 | Review the understanding of the trained staff on product formulation  |
| Day 16 | Volunteer PowerPoint presentation on importance of formulated nutritious products |
| Day 17 | Exit meeting between Stawi Food and Fruits Company management, the volunteer and CRS F2F |
| Day 18 | Debriefing at CRS office with USAID Mission and CRS staff.Submit completed Trip ReportsVolunteer departs for USA |

# Desirable Volunteer Skills

The volunteer must have the following qualifications and competencies:

* Advance university degree in Food Science, Technology and Nutrition or related sciences preferable.
* Specialized expertise in formulation and development of instant nutritious foods
* Experience in implementing Quality Control and Assurance procedures for food formulation
* Excellent hands-on training skills to an adult audience is necessary
* Good writing and analytical skill as well as good communication skills
1. **Accommodation and Other In-Country Logistics**

While in Nairobi, the volunteer will stay at the AACC guest house is located along Wayaki Way, Westlands area of Nairobi. <http://aacc-guesthouse.com/> Tel: 254 20 4440224,4442215 Mobile: 254 710 734728. or any other hotel identified by CRS and communicated to the volunteer prior to arrival.

CRS will pay for hotel accommodation, and provide volunteer with per diem to cover meals and other incidentals. The volunteer may get an advance which has to be liquidatedbefore departing Kenya. For more information, please refer to country information that will be provided.

**H. Recommended Assignment Preparations**

* 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 Kenya.
* The volunteer should prepare materials for hand out which can be printed at CRS office in Nairobi before commencement of the assignment. Flip charts, markers, masking tapes can be obtained at CRS offices. Depending on the training venue the volunteer may use a laptop and projector for power point presentations. But if the training venue is in the community, it will be difficult to use PowerPoint.
* CRS strongly recommends that the volunteer become familiar with CRS programs in Kenya, the livestock project description, other information in the briefing pack before arrival to Kenya

**I Key Contacts**

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