 

**Farmer to Farmer East Africa**

**Volunteer Assignment Scope of Work**

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| **Assignment Summary** | |
| Assignment Code | TZ77 |
| Country | Tanzania |
| Country Project | Tanzania F2F Horticulture project |
| Host Organization | Reservoir Ltd - Cheetah Development Company |
| Assignment Title | Inventory systems development and management |
| Assignment objective | Design and implement an inventory management system for dried foods and solar dryers for Reservoir Ltd |
| Desired skills | Inventory management specialist with extensive background in designing and implementing inventory systems for rapidly expanding companies, starting with a basic system suitable for low volumes and graduating to a system large enough to track inventory for cargo containers |
| Assignment preferred dates | Open – All year around |

1. **Background:**

The Farmer-to-Farmer (F2F) East Africa program is a program that uses short-term US volunteer 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. The goal of the (F2F) grains project is to increase incomes and improve nutritional status of Tanzanian smallholder farmers through; smallholder farmers increased productivity of agricultural crops, improved access to and utilization of markets and credit and preservation and enhanced natural resources upon which target communities depend. The program reaches out and establishes partnership with like- minded organizations, such as Cheetah Development.

Cheetah Development is a US-based impact investor headquartered in the US with a registered entity – Cheetah Development of Tanzania – based in Iringa, TZ. Cheetah funds the establishment of agricultural companies using a micro-venture capital model. Established companies are launched that target specific weaknesses in agricultural value chains that are not being addressed by other companies. Cheetah Development of TZ provides all the back office services to portfolio companies, including finance & accounting, HR, property management, etc. This safeguards quality provision of services to the start-up/early stage companies and is crucial for ensuring compliance with international standards and mitigates corruption. This back office service provision is just one of the innovative approaches that Cheetah employs to ensure success of portfolio companies. Cheetah Development USA manages two funds: one is an equity fund for starting up new value chain companies, and the second is a collateral fund used as a guarantee fund when working with lending organizations (banks and MFIs).

One of the two currently established/operating portfolio companies that Cheetah established is Reservoir Ltd, a company that operates in two separate value chains: provision of solar dryers for fruit and vegetables, and collection, packing, and distribution of dried foods. Reservoir lifts smallholder farmers out of poverty by guaranteeing a market for the food dried by farmers, and our approach is unique in that we are pushing the value-added process of drying down to the village level where the smallholders can capitalize on the increased value of dried food, instead of a company earning the benefits from drying. With dried food, farmers can earn many times the market price of fresh produce.

*Solar Dryers:* our completely passive solar dryer is manufactured locally and designed to be maintained and repaired in the village. Despite its seemingly simple design, our dryer performs better than any other known dryer for drying produce in cloudy and drizzly weather (conditions that exist for nearly half the year in many parts of sub-Saharan Africa). Farmers receive training from Reservoir staff on dryer instruction, food safety and sanitation, using the dryer to generate income, etc. Dryer customers (usually smallholder farmers in rural settings but also some entrepreneurs and groups such as student groups in rural areas) generally buy the dryer on credit (from a lending institution arranged by Cheetah) and use proceeds from the sale of dried food to service the loan payments. The cost of the dryer to customers is approximately $250. Currently there is no serial numbering system by which we can keep track of the dryers, and our initial thought is to procure a hand stamp and metal stamp tabs from the US that can be brought over with the volunteer (something like this: <http://www.argontool.com/hand-held-marking-tools.php>). This kind of system is not readily available locally.

*Dried Food:* Reservoir guarantees the market for the dried products that the farmers produce as long as it meets quality and cleanliness standards. Dried produce includes bananas, mangoes, pineapples, onions, tomatoes, sweet potatoes, and leafy greens. Farmers deliver dried produce to the Reservoir office in Iringa where it is inspected and weighed and the farmer is given a receipt indicating the volume delivered and the value of the food; farmers are paid via mobile money system (MPESA, etc.) within 8 days of delivery. After intake, Reservoir staff sort the product by hand and move it to the packaging area to be put into bags ranging from 10 grams to 2 kilos, depending on the product. The food is then stored in cargo containers (converted into temporary storage space) until it is sold to retail shops.

The dried foods are marketed under a trademarked brand called Sunborn. Currently the dried produce is sold locally in and around Iringa town, but we are in the process of finishing the registration of products with the Tanzanian Food and Drug Agency (TFDA) that will allow us to sell domestically country-wide. After we have sufficient number of dryers in the field, the end goal is to produce enough dried food for export, meaning that we should be collecting enough to fill one 40-foot cargo container per month (around 20 metric tons, depending on the product). The goal is to eventually turn the brand into a certification that other brands can use that will let consumers know that products with the Sunborn label are fairly and sustainably sourced directly from smallholder farmers.

There are currently around 200 dryers in the field but Reservoir is pursuing a rapid growth strategy to increase dryers in the field and thus generate the volumes needed for export. To reach the scale necessary to provide reliable and steady supply to international buyers, we need at a minimum 1,000 dryers in the field for each product. Our goal is to have at least 3,000 dryers in the field within the next 12 months.

1. **Issue Description**

As an early stage company, Reservoir has generated and sold only modest amounts of dried food with sales limited to the immediate area since its inception in 2014, so there was no need for a sophisticated inventory management system. Now that the company has proven the concept and is ready to scale, it is imperative to have a comprehensive system for tracking both dryers and dried food. Traceability is a key aspect for both: there is need to be able to trace dryers from the manufacturer to customers in the field and also trace dried food back to specific farmers. We have recently adopted a farmer management software platform called FarmForce that will help with traceability in the field, but this software is not designed to perform as an inventory tracking/management system, so they are looking for appropriate solutions.

Reservoir needs systems to manage their inventory in 3 stages:

1. The current phase where they are selling locally
2. Scaling up to service the domestic and regional markets
3. Reaching high volumes for export where they are filling and shipping 20 metric tons per product per month (most likely for 1-3 products)

Reservoir does not have anyone on the ground with a strong background in inventory management, so the consultant would start by teaching the fundamentals of good inventory practices.

1. **Objective of the Assignment**

Definition and documentation of 3 levels of inventory management:

1. Our current phase where we are selling locally
2. Scaling up to service the domestic and regional markets
3. Reaching high volumes for export where we are filling and shipping 20 metric tons per product per month (most likely for 1-3 products)

Additionally, the volunteer will also conduct training to transfer knowledge to staff about how to manage the current phase, and key principles that apply to current and future phases.

1. **Anticipated Results From The Assignment**
2. Inventory management system designed for each of Reservoir’s 3 stages of growth of food sales: locally in Iringa, then Tanzania and region-wide, then for export
3. 8 Reservoir staff receive practical and classroom training on inventory management, proper record keeping,
4. Cheetah back office staff also receive training on auditing inventory
5. Training manual developed for each of the 3 stages with detailed explanation of procedures, equipment needed, and benchmark metrics describing to adapt the current inventory system to the next stage
6. Staff receive a list of resources needed for each of the 3 stages, including approximate costs of equipment, software, etc. associated with each
7. Volunteer advises on next steps for furthering our efforts on the objectives of the assignment
8. **Schedule Of Volunteer Activity In Tanzania**

The host would prefer to flesh this out once the skills and background of proposed volunteer (s) are determined. Opportunity to provide their feedback on amount of time needed for training and developing the manual will be offered to the volunteer/s identified for the assignment. Below is an indicative schedule that just gives some guide

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| **Day** | **Activity** |
| Day 1 | Travel from home to US international airport |
| Day 2 | Arrival in Dar es Salaam JKN airport. The volunteer will be picked from the airport by a designated cab and driven to the Amariah Hotel and Boutique |
| Day 3 | At around 09.00 am the volunteer will visit with the CRS office for logistics and briefing and then travel to Iringa |
| Day 4 | Upon arrival in Iringa, the first day would be spent with Marco and Patricia (Director of Reservoir in TZ) to go over assignment objectives, determine what’s achievable, and spending time with Reservoir staff to assess their knowledge and gaps. |
| Day 5-6 | Looking at current facilities and inventory processes. Understanding current and future markets. Anything else that would be helpful context. |
| **Day 7** | **Rest** |
| Day 8-9 | Preparation of training program |
| Day 10-13 | Implement trainings, with documentation |
| **Day 14** | **Rest** |
| Day 15 | Testing of staff on what they learned |
| Day 16-18 | Creation of manuals and other training material |
| Day 19 | Wrap-up with Cheetah & Reservoir staff and work on assignment related docs |
| Day 20 | Travel back to Dar es Salaam from Iringa, check in Amariah Hotel and Boutique |
| **Day 21** | **Rest** |
| Day 22 | Volunteer will finalize his/her reporting for CRS office; provide feed-back on assignment and clear financial advances.  Depart for USA evening |
| TBD | Outreach event when back in the US |

1. **Desirable Volunteer Skills**

* Professional inventory specialist extensive experience in a variety of professional settings, from small, early-stage companies tracking smaller volumes to larger-scale companies tracking large volumes. Experience in the dried food space would be ideal
* Demonstrated expertise of inventory management systems at various levels, from small-scale to large scale, including experience designing and implementing inventory systems that grow
* Skill and desire to teach others
* Strong skills in documentation
* Prior travel to Africa or other developing country and understanding/familiarity with cultural differences and differences in resource availability and infrastructure
* High level of comfort with ambiguity and ability to adapt to quickly changing circumstances
* Patience, fortitude, and sense of humor are crucial to succeeding in this environment!

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

In Dar es Salaam the Volunteer will stay at the Amariah Boutique Hotel nearby the CRS offices, located on Dr. Kairuki Road, Mikocheni, Dar es Salaam, Tanzania, ‏‎0044 203 564 5228.

While in Iringa, the volunteer will stay in a local hostel that meets F2F’s standards for security, safety, and convenience Rucu Hostel and or Lutheran Guest house in Iringa are potential, and one will be confirmed prior to volunteer arrival.There are 3-4 Western style restaurants within a 10 -15 minute walk from either of the two hotels, which are frequented by the local expat community and tourists.

There are several banks (including Barclays) with reliable ATMs.

Cheetah will provide local ground transportation to/from office and to field sites.

1. **Recommended Assignment Preparations**

CRS-F2F designs volunteer 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 Tanzania.

CRS recommends that the volunteer become familiar with CRS programs in Tanzania, especially the horticulture country project description and other information in the briefing pack before arrival in Tanzania

**I: Key Contacts**

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| **CRS Baltimore** | **CRS EA Regional Office** |
| **Maria Figueroa**  Volunteer Coordinator  EA Farmer-to-Farmer Program  228 W. Lexington Street  Baltimore, MD 21201  410-951-7366  Email: [maria.figueora@crs.org](mailto:maria.figueora@crs.org) | **Nyambura Theuri**  Deputy Project Director  EA Farmer-to-Farmer Program  P.O. Box 49675 – 00100  Nairobi, Kenya  St. Augustine Court Karuna Close Road  Email: [nyambura.theuri@crs.org](mailto:nyambura.theuri@crs.org) |
| **CRS Tanzania** | |
| **Mary Kabatange**  Farmer-to-Farmer Program Country Director  Plot # Migombani Street, Regent Estate, Mikocheni  P. O. Box 34701 Dar es Salaam  Tanzania  Office Tel: +255 22 2773141  Mobile cell phone +255 758 820025  Email: [mary.kabatange@crs.org](mailto:mary.kabatange@crs.org) | **Brian Gleeson**  Country Representative  CRS Tanzania  Plot # Migombani Street, Regent Estate, Mikocheni  P. O. Box 34701 Dar es Salaam  Tanzania  Office Tel +255 22 2773141  Mob: +255 754 930966  Email: [brian.gleeson@crs.org](mailto:brian.gleeson@crs.org) |
| **Cheetah Development**  **Marco Johnson**  VP of Field Operations  President of Pearl Foods  Iringa, TZ  Phone: +255 68 463 7902  Email: [marco.johnson@cheetahdevelopment.org](mailto:marco.johnson@cheetahdevelopment.org)  Skype: johnsonmarc1 |  |