Pastoral Sampling in Kelafo Woreda, Somali Region, Ethiopia

The following document includes a sampling plan based on the SMART methodology to implement household selection in a survey that has a few clusters that are in a pastoral area but the majority of the clusters are agri-pastoral (permanent households). The sampling plan was developed as part of the *Kelafo Nutrition and Mortality Survey using the SMART Methodology (April 2018)*. This method can potentially be applied to other surveys conducted in the Somali Region that include a few pastoral clusters. It is not recommended at this time to use this method if all of the clusters in the survey are pastoral due to the extra planning, personnel, and time that would be required to implement the survey. However, in theory a pastoral survey (all clusters in pastoral areas) could be implemented using this sampling plan and would adhere to the requirements outlined in the SMART methodology to achieve a representative sample. It is recommended to also consult with the ACF Canada global SMART team before conducting a survey in a pastoral area.

**General background**

The data collection for the Kelafo woreda SMART survey took place from April 4-9, 2018. Kelafo woreda is located in Shebelle zone which is 1 of 11 zones that make up the Somali region of Ethiopia. Shabelle zone has 10 rural woredas and one urban town, Gode. Kelafo woreda includes 15 kebeles made up of approximately 187 sub-kebeles/villages. Sub-kebele is the term used to describe the geographical unit that is one smaller than a kebele and is used for all rural areas of Kelafo with the exception of Kelafo town where the term village is used. Throughout this document the geographical unit sub-kebele will also include village.

Kelafo is made up of a population that is approximately 95% agri-pastoral meaning that families live in a year round permanent compound and raise livestock and grow crops. Five sub-kebeles in Kelafo are pastoral and 1 of them, Godere, was randomly selected (stage 1 cluster selection) for the survey. Unfortunately, due to torrential rains which occurred during data collection, the road to Godere was not accessible therefore Godere was not included in the survey. However, a modified sampling plan that maintains a representative sample and adheres to the SMART methodology was developed for Godere and is presented below.

**Background of sampling plan developed for pastoral cluster in Kelafo**

When developing the sampling frame in Kelafo the Tech RRT Assessment Advisor and supervisors split up and met with all 15 kebele leaders to determine the population of each of the sub-kebeles in their kebele. Sub-kebele was used as the primary sampling unit. Up to date population data was not available in many of the sub kebeles but number of households was available and was used to create the sampling frame. Some of the kebele leaders did not have up to date number of household information but were able to obtaining it within 48 hours using a method of contacting focal points described below.

In each sub-kebele in Kelafo woreda there is 1 focal point person responsible for 5 households. Each of the focal point people (5 households) report to a focal point person that is responsible for 30 households. Each of these focal point people (30 households) report to a focal point person responsible for 90 households (known as a branch leader) and the branch leaders report to the sub-kebele leader. The sub-kebele leaders in the kebele then report to the kebele leader. This method of collecting household information is used in other areas of Shebelle zone and perhaps in other areas in the Somali region as well. All of the focal point people and leaders have mobile phones.
**For example, a sub-kebele with 180 households:**
Step 1: 38 focal point people (5 households) report to 6 focal point people (30 households)
Step 2: 6 focal point people (30 households) report to 2 branch leaders (90 households)
Step 3: 2 branch leaders (90 households) report to sub-kebele leader
Step 4: sub-kebele leaders report to kebele leader

**Sampling plan developed for pastoral cluster in Kelafo**
The pastoral sub-kebele of Godere is located in Boholaways kebele and includes approximately 600 households.

**Steps**

1. Half way through data collection, contact the Boholaways kebele leader and obtain the contact information of the Godere sub-kebele leader.
2. Contact the Godere sub-kebele leader and provide information about the survey and let him know that Godere was randomly selected to be included in the survey. As part of this phone call ask the Godere leader to prepare a list of names of all the focal point people in Godere that are responsible for 30 households.
3. When the team arrives in Godere, meet with the leader and review the list of focal point names and then randomly select one of the names using a random number table. The 30 households that are the responsibility of the selected focal point now becomes the cluster. The reason that a list of focal point people responsible for 30 households as opposed to 90 households is used is because the distance from the 12 randomly selected households included in the cluster (all clusters in Kelafo survey were 12 households) will be less when randomly selecting from 30 households compared to 90. Households in the pastoralist sub-kebele of Godere are far apart so it is important to make data collection as manageable as possible for the team so that the cluster can be finished in 1 or 2 days. Note that clusters typically take 1 day to complete.
4. Contact the randomly selected focal point person (30 households) and ask him to provide a list of the head of household for all 30 households included in the cluster.
5. Once the team receives the list, randomly select 12 households using systematic random sampling.
6. After the 12 households are selected ask the focal point person (30 households) to contact the appropriate focal point people (5 households) to let the head of the 12 households know that they have been randomly selected to be included in the survey and to ask that they stay at home on the day(s) of data collection.
7. When the team is collecting data they should meet up with the appropriate focal point people (5 households) to act as a guide for the team.
8. After arriving in the cluster the planning may take 1-2 days and the data collection is likely to take 1-2 days depending on how far apart the households are.