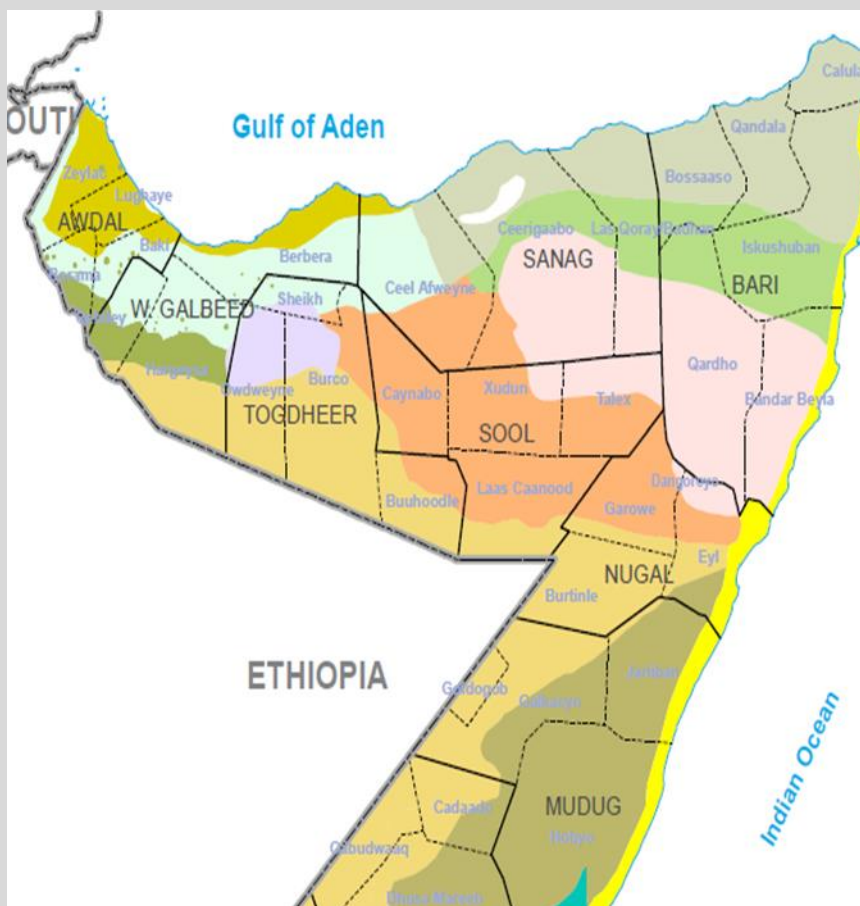




FAO

Seed Security Assessment Training



**Site identification
and
Sampling Frame
(S7a)**

Objectives

1. Be able to identify possible sites for conducting SSA with a given geographic scope
2. Determine the appropriate sample size for data collection

Identification of SSA Sites

Considerations

1. Agro-ecology/Livelihoods zones representation

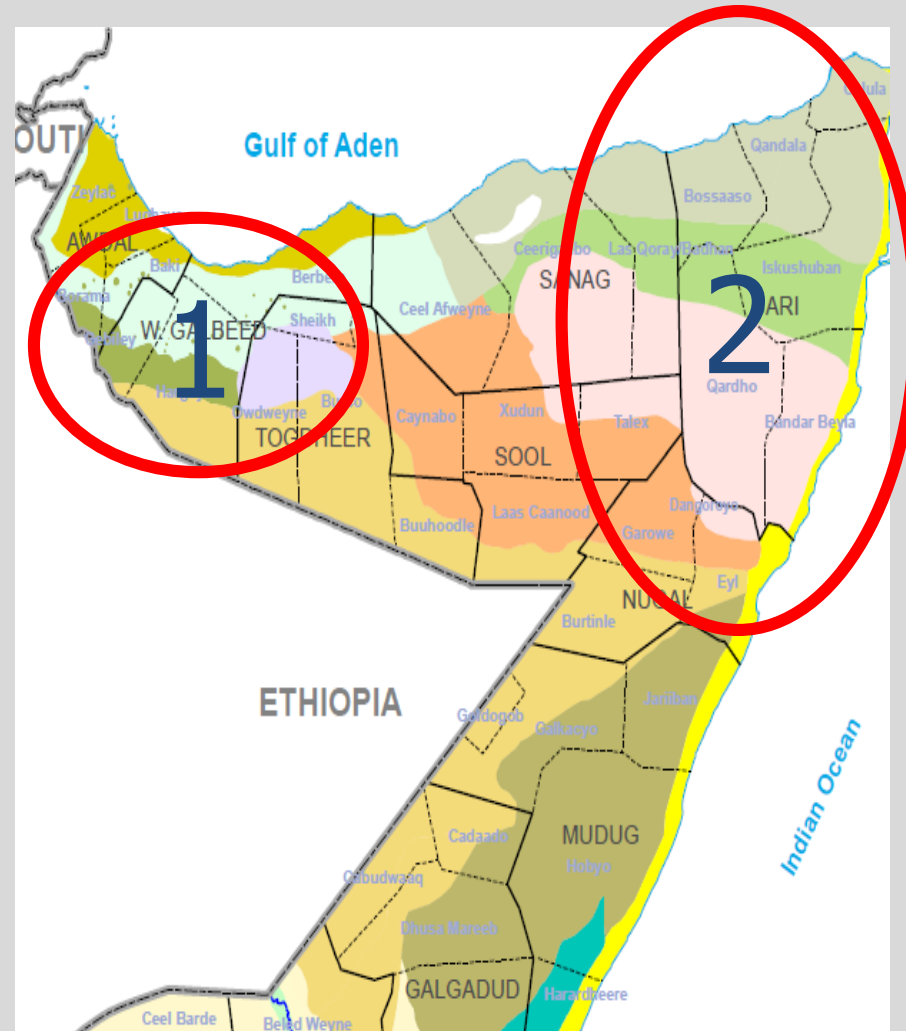
- Cropping systems (crops types and practices)

2. Disaster affected area

- Natural: drought, flood, conflict affected areas vs. unaffected
- Man made: IDPs and refugees with access to land for production

3. Boarder trade

- This could influence the dynamic of seed security in a given boarder area



Agro-ecologies of Somali SSA Sites

Identifying sites at Regional, State or County levels (at planning level)

Key considerations

1. Security threat to the assessment team
2. Accessibility of the district with a region
3. Agro-ecologies of interest (ensure all are represented)

Procedure

- a) Obtain the lists of all the districts/counties/payams
- b) Sort out those that pose real security risk or are inaccessible
- c) Ensure that districts/counties/payams selected represent the various agro-ecologies

Sampling

- **Sampling:** is the selection of a representative part of a population (total) in order to determine parameters or characteristics of the whole population
- **Sample:** proportion of the population selected for the study or investigation
- **Sampling unit:** an individual, household, whole community and key informants to mention some
 - In HHS sample unit is the **household**.
 - In LMS the sample unit is **a person** (grain/seed trader)

Sampling: sample size

- It is important to know the heterogeneity and homogeneity of population or community in which you are going to do an assessment
- In homogenous population, only a single sample size has to be calculated
- In heterogeneous populations (e.g. residents, refugees, IDPs, farmers)
 - Specific sample size has to be calculated as for each of group at the same level of reliability, in order to be able to compare the results later on

Sampling: sample size

- Dependent on the level of reliability and assuming that the selected communities are subject to a normal sampling distribution, the following formula is used:

$$SS = \frac{Z^2 * (p) * (1-p)}{C^2}$$

Where:

Z = Z value (e.g. 1.96 for 95% confidence level)

p = percentage picking a choice, expressed as decimal (0.5 used for sample size needed)

C = confidence interval, expressed as decimal (e.g., .05 = ± 5)

Ss = sample size

- Using the above mentioned formula, the following results shown in **Next Table** are obtained for different levels of reliability

Sampling: adapted sample size

Population at sampling level	Level of reliability in %				
	75	80	85	90	95
500	105	124	148	176	217
1000	117	142	174	213	278
2000	125	152	190	238	322
4000	129	159	200	253	350
6000	130	161	203	258	361
8000	131	162	205	261	366
10000	131	162	206	263	370
20000	132	164	208	266	377
50000	133	164	209	269	381
100000	133	165	210	269	383
200000	133	165	210	270	383
500000	133	165	210	270	384

Sampling process

- a) Know the sample size at provincial level = 270
- b) Select three district, each sample size 90
- c) A team of five are able to survey 20 households per day (village) + other tools.
 - Number of days (village) district = $90/20 = 5$ villages
- d) Obtain the lists of all the villages within a given district/payam
- e) Sort out those that pose real security threat or are completely inaccessible (consider means of transport to the field)
- f) Randomly select 6 (example above) villages from the list

