**Objectives**

1. **Obtain a preliminary understanding of**
   - Farming systems
   - Land tenure
   - Household characteristics
   - Agricultural characteristics

2. **Identify farmers’ perceptions of weather patterns**
   - Climate variability
   - Perceived impact on agricultural production

3. **Obtain a preliminary understanding of major challenges and constraints facing farmers**
   - Socio-economic factors
   - Biophysical factors e.g. land health

4. **Identify existing and potential CSA practices and assess demonstration plots**

5. **Identify opportunities for mainstreaming CSA**
   - Economic
   - Social
   - Institutional

6. **Identify gender dynamics**

**Activities**

- Farmers Workshops
  + Listing crops/livestock and their uses
  + Village resource maps
  + Cropping calendars
  + Climate calendars
  + Historical calendars
  + Institutional mapping
  + Agriculture challenges for men, women and youth

- Expert Interviews
  + Farming systems
  + Demographics
  + Land tenure and access
  + Crop/livestock challenges
  + Land/crop/livestock management practices

- Farmer Interviews
  + Farm characteristics
  + Agriculture production & challenges
  + Household food security
  + Awareness and adoption of agriculture practices

- Farm Observations
  + Crop diversity
  + Soil properties
  + Topography
  + Socio-economic indicators
  + Demonstration plot visits

**Example Outputs**

The CSA-RA assesses multiple aspects of the farming systems and includes the below example outputs:

- **Institutional Mapping**
  - Institutional mapping diagram illustrates how the ‘male’ group in Bagamoyo, TZ ranked local institutes operating in the region. Color & size indicate importance (blue = high, yellow = medium and red = low).

- **Cropping Calendar**
  - Crop management activities for the two most important crops, reported by the men’s group in Kilolo, TZ.
  - Symbols indicate who undertakes the activity (women, men, children, jointly).

- **Climate Calendar**
  - Climate calendar was prepared for normal, wet (1997) and dry (2012) years by male and female groups in Kilosa, TZ.
  - Normal year
  - Wet year (1997)
  - Dry year (2012)

**Outputs**

- Institutional mapping diagram illustrates how the ‘male’ group in Bagamoyo, TZ ranked local institutes operating in the region. Color & size indicate importance (blue = high, yellow = medium and red = low).

**Example**

- Climate calendar was prepared for normal, wet (1997) and dry (2012) years by male and female groups in Kilosa, TZ.

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Since 1967 / Science to cultivate change

January - Very sunny - Strong winds - Crop failure
February - Strong winds - Pest infestations
March - Floods
April - Pest infestations
May - Very sunny - Strong winds - Crop failure
June - Land preparation was difficult - Soil erosion along the slopes
July - Very hot and sunny - Crop failure
August - Land preparation and planting
September - Harvesting and marketing
October - Fertilizer application
November - Irrigation
December - Marketing

Crop failure
Crop failure
Relied on food aid and off farm labour
Hunger, people died
Survived on tree roots
Loss of livestock

**Crop management activities for the two most important crops, reported by the men’s group in Kilolo, TZ.**

Symbols indicate who undertakes the activity (women, men, children, jointly).

**Climate calendar was prepared for normal, wet (1997) and dry (2012) years by male and female groups in Kilosa, TZ.**

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