



**USAID**  
FROM THE AMERICAN PEOPLE

# **IMPACT EVALUATION OF LAND ADMINISTRATION TO NURTURE DEVELOPMENT (LAND) OROMIA**

**PARTICIPATORY MAPPING PROTOCOL  
2014**

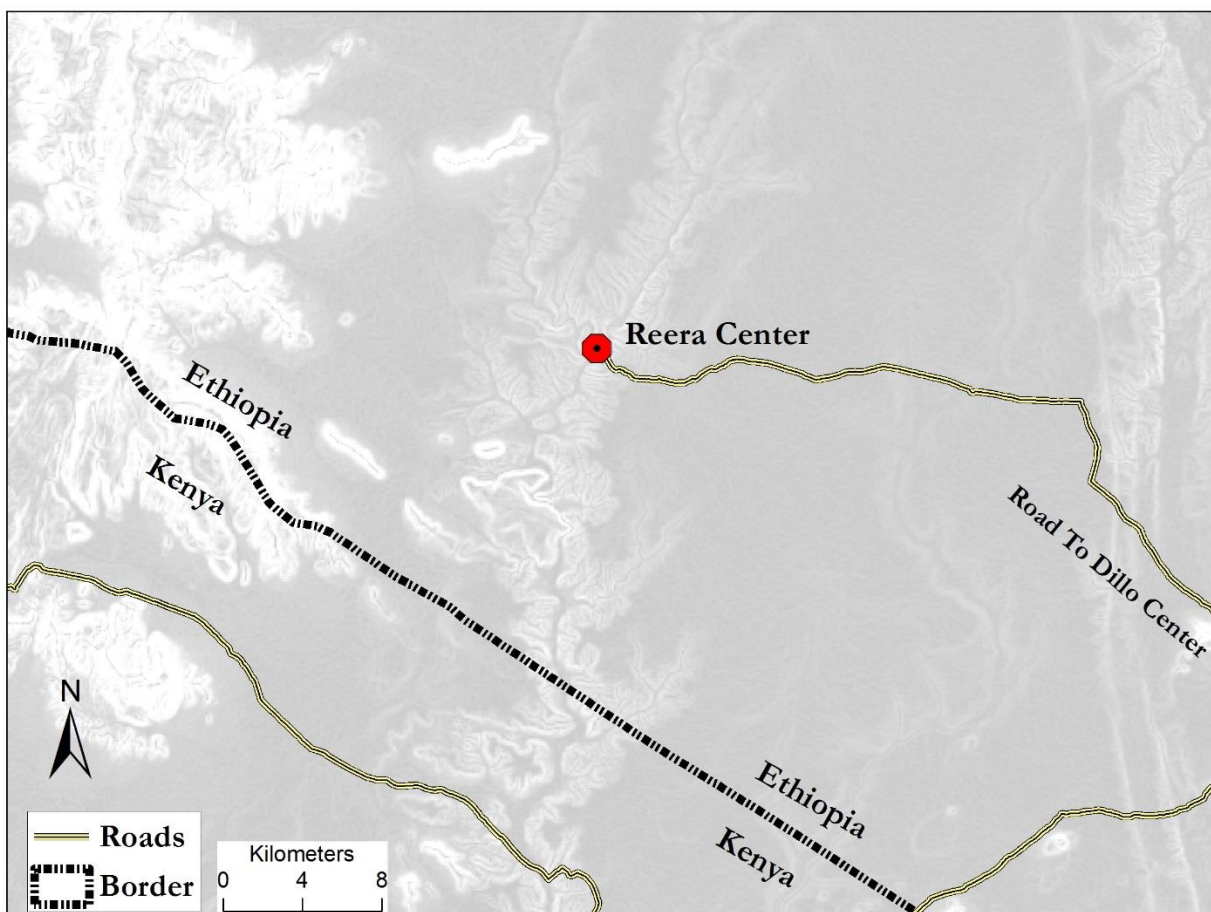
2014

This document was produced for review by the United States Agency for International Development. It was prepared by The Cloudburst Group for the Evaluation, Research and Communication (ERC) Task Order under the Strengthening Tenure and Resource Rights (STARR) IDIQ.

# Participatory Mapping Protocol

## Background Map Preparation

We first need to get the coordinates of the community centers for participatory mapping. For smaller scale at the village level, the mapping range will be around 8 km radius from the village center. For larger scale at the kebele level, the mapping range will be around 25 km radius from the kebele center. The 90 meter resolution elevation and slope raster data will serve as the background, with additional spatial reference such as borders, roads, rivers, town names, etc. For each village and each kebele, one background will be generated. These maps will be printed out in A1 size.



Example of background map

## Respondent selection

For village scale mapping, we select about 4 respondents, including one village leader, one elder, and two active herders.

For kebele scale mapping, we select about 8 respondents, including one person from the kebele leadership committee, one development agency staff, three elders, and three active herders.

## Field mapping guide

- 1) Explain the reference points to pastoralists, and let them get spatially oriented on the map.
- 2) Let pastoralists ask any questions they have regarding the maps.
- 3) Let pastoralists draw the boundary of their community's herding range for both *worra* and *forra* herds, and indicate the areas of *mata tika*.
- 4) Let pastoralists draw their migration routes (the ways to *mata tika*, the ways to key water points, and the ways between *worra* and *forra* grazing areas).
- 5) Investigate how pastoralists share the rangeland with their neighboring communities, and have them draw if there are any overlaps on land use (This can be an open question for discussion).
- 6) Probe all the water points that are used by the community, and let the respondents indicate the location on the map. If the respondents have difficulty to pinpoint the location, then use other measurements, such as the distance and direction from the mapping location.
  - If the water point is a pond, let pastoralists report: 1) name; 2) the size of pond when full (diameter); 3) how many months/days it can last after full recharge in the rain reason; 4) the owner of pond; 5) the maintenance of pond.
  - If the water point is open flowing water, let pastoralists report: 1) name; 2) how many months/days it can last after full recharge in the rain reason.
  - If the water point is a well/borehole, let pastoralists report: 1) name; 2) months of use, including long dry and short dry seasons; 3) the owner of well/borehole; 4) the maintenance of well/borehole.

## **Indicators and hypotheses**

### ***Land Use Strategies***

Measurement: The delineated boundaries of different land use types can be digitized in ArcGIS, and the spatial distribution of each land use type can be quantified for each community. In addition, the area of warra and forra grazing lands can be quantified.

Hypothesis: The proportion of cultivated land will increase; the proportion of kalo will increase; pastoralists will be less likely to conduct forra herding practices.

### ***Reduced Land Use Competition***

Measurement: The area where different types of land use go into conflict, and size of conflict area.

Hypothesis: There will be less area where grazing land and farm land go into conflict.

### ***Inter/intra conflict***

Measurement: The conflicted area with neighboring communities, and the access to water points.

Hypothesis: There will be less area that are considered as conflicted area with neighboring communities; there will be less water points that involve conflict in its use.

### ***Increased community investment***

Measurement: The area of community kalo

Hypothesis: The number and size of community kalo will increase.

**U.S. Agency for International Development**

**1300 Pennsylvania Avenue, NW**

**Washington, DC 20523**

**Tel: (202) 712-0000**

**Fax: (202) 216-3524**

**[www.usaid.gov](http://www.usaid.gov)**