

# Climate Risk Adaptation Strategies of Boran Pastoralists in Southern Ethiopia

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## Ethiopia: Borana Plateau

The Borana Plateau straddles the Ethiopia-Kenya border and is home to many mostly pastoralist groups. The pastoralists of this region have developed strategies to cope with the arid and drought-prone climate of the region. Recently however, the droughts have had extremely severe impacts. The entire horn of Africa was gravely affected by the 2011 drought, which caused high livestock mortality, leaving many pastoral families with very limited income. Increasing populations and climate change continue to exacerbate the pressures on this region's ability to support pastoral families. This IGERT team sought to gauge local perceptions on climate risk mitigation, identify existing and emerging climate risk mitigation strategies, and identify potential conflicts and complementarities with an index-based livestock insurance (IBLI) pilot project.

This research was undertaken in the Borana zone of southern Ethiopian and was supported by the Food Systems and Poverty Reduction IGERT, the CGIAR Climate Change and Food Security Program, the International Livestock Institute (ILRI) and CARE. The last three organizations were especially interested in interdisciplinary perspectives on their initiatives in Borana. In particular, ILRI and Cornell are testing in this region an index-based livestock insurance (IBLI) program which has already been introduced in Kenya. IBLI is an insurance product based on the normalized differenced vegetation index (NDVI) as a proxy for drought. It aims to reduce the negative impacts of drought on income through payments triggered when NDVI falls below a predetermined threshold.



## The Team

The IGERT team members who conducted this research are pursuing their PhDs in Applied Economics and Management, Biological and Environmental Engineering, Civil and Environmental Engineering, International Nutrition and Animal Science. Though we each contributed disciplinary expertise, our IGERT training and the many academic perspectives represented on the team helped us to ask questions beyond traditional disciplinary boundaries. Our report is at <http://ccafs.cgiar.org/resources/working-papers>.

## Objectives

1. To gauge local perceptions of the need for and satisfaction with local climate change adaptation strategies.
2. Identify emerging climate risk adaptation strategies and external interventions.
3. Evaluate how existing and new strategies might complement or be compromised by the introduction of IBLI into the region.

## Methods: Rapid Rural Appraisal (Ethiopia July, 2011)

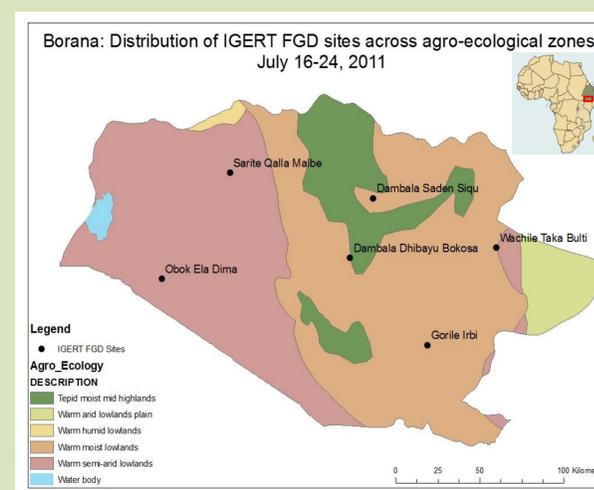
### Site selection

Six sites were selected by the ILRI field staff with the help of local development representatives and NGOs to ensure a variety of agro-ecological zones, *woredas* (administrative districts), and access to infrastructure such as markets and roads.

### Key Informant Interviews

The team performed over 20 interviews with a variety of key stakeholders and organizations familiar with the region. Included were:

- Pastoralists
- NGO officers and field agents
- Government extension agents
- Members of local civic organizations



### Focus Group Discussions

We facilitated 3 types of focus group discussions at each site, each with 6-8 participants. The participants in each group were selected to focus the discussions on issues from specific perspectives. The three types of groups were:

1. Elders: historical climate and climate trends, traditional individual and social coping strategies
2. Current heads of household: current issues faced while making herding decisions
3. Women: the impact of droughts and changes to livelihoods on the lives of women and children in ways most likely not expressed by the other two groups

## Findings

### Assessment

1. Local pastoralists perceive that droughts are becoming more frequent and impacts more severe.
2. Current coping strategies rely heavily on herd mobility, access to traditional water sources, and livestock that need watering less often.
3. They report that their traditional pastoralist coping strategies and insurance mechanisms are beginning to fail as the duration between droughts, a vital time for rebuilding herds, becomes less and livestock mortality becomes more widespread.

### Recommendations

1. Because IBLI supports existing livelihood strategies while reducing the impact of droughts on income, it is likely to help traditional coping strategies become more successful.
2. On the other hand, more recent strategies, such as cropping or land privatization, may come into conflict with traditional pastoralist activities.
3. There are opportunities for IBLI to support and coordinate with other interventions and developments. For example, increasing access to information, veterinary services, and transitioning rangeland management strategies fall outside the bounds of IBLI but are relevant.

### Traditional Pastoralist Strategies

- The Borana cattle have been bred to need water every 3<sup>rd</sup> day
- Herd diversification
- A system of deep and shallow wells is maintained and accessed according to a system of reciprocity and cultural norms.
- Herds are moved between wet and dry season pastures
- Herds are split to reduce exposure to geographically idiosyncratic shocks
- Kallos* (enclosures) near villages are set aside for calves and sick animals

### More Recent Additions to Traditional Strategies

- Cropping provides a new source of income although it is susceptible to many of the same shocks as pastoralism.
- Households report that education is key for their children's future.
- Radios and cell phones increasingly provide access to information such as market prices, weather, and available pasture.
- Limited access community and/or private ranches and forests work towards improving pasture productivity by limiting grazing pressure.
- Livelihood diversification, e.g. small businesses and casual labor.

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