

# INTRODUCTION

**1.** The Adaptation at Scale in Semi-Arid Regions (ASSAR) research project has investigated what makes people vulnerable to climate change and related problems in semi-arid areas in Africa and Asia.



**2.** As part of this project, a collaboration between Addis Ababa University in Ethiopia, the University of Nairobi in Kenya, the University of East Anglia in the UK and Oxfam GB has been working in Ethiopia and Kenya over the past four years.

**3.** By talking to people like pastoralists and farmers whose wellbeing and livelihood are most closely tied to the environment, we hoped to identify the things that will make adapting to a changing world easier.



**4.** This display is intended to help share the responses we have received so far, spreading ideas and knowledge about how to make communities, local organisations and governments in Ethiopia better able to adapt to climate change in ways that protect and improve people's futures.

**5.** In Ethiopia we have worked mostly in Awash Fentale Woreda and Amibara Woreda, in the southern part of the Afar region. In the four years of research, we have spoken with 1,109 people in 17 communities across the two woredas. We have also spoken with 84 stakeholders at woreda, regional and national levels.

**6.** We understand that:

- Not everyone has the same vulnerability or the same capacity to respond
- People have a right not only to a secure livelihood but to have a voice in deciding how problems are managed
- Before proposing adaptation solutions, we must first understand what helps or hinders their chances of being successfully and equitably adopted



**7.** The other panels in this exhibition summarise some of the key messages

# TOPIC 1 CLIMATE, WATER & LIVELIHOODS

- **The drylands of East Africa have been called a climate change 'hotspot':**

- Average temperatures are gradually rising and the rate of these increases seems to be faster in drylands across the world.
- There are likely to be changes in the pattern of rainfall, making the weather less easy to predict.
- The region may also be affected by more weather extremes, including droughts and floods.



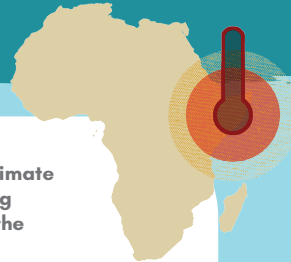
- **This is likely to mean water levels in the soil and in rivers become less reliable:**

- Affecting pasture, crops, and livestock.
- Bringing other changes to the environment – possibly increasing the spread of problems like Prosopis.

- **But ASSAR research emphasises that climate change cannot be considered alone – it is part of an interlinked web of other issues:**



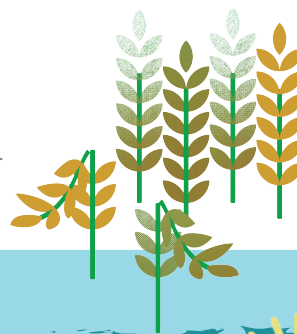
- For example, the impact of drought is caused not only by weather but by other things, including how land is used and changes in people's access to pasture and water.



- **This means to really understand the impact of climate change and people's responses to their changing environment we need to have a clear picture of the challenges they face in their livelihoods.**

- **The types of 'adaptation' options people might benefit from include actions, like:**

- Diversifying livelihoods.
- Changing animal or crop types.
- Migrating to other locations for work.
- Building social support systems.



- **There are many different factors influencing the success of these, and they work differently according to people's gender, age, and other social characteristics**

- **Responding to these issues needs different organisations, sectors and levels of government to work together**

**For example, to:**

- Help different pastoralist groups in a changing landscape to reduce competition for resources.
- Make sure water is available for different users and uses across the Awash valley.



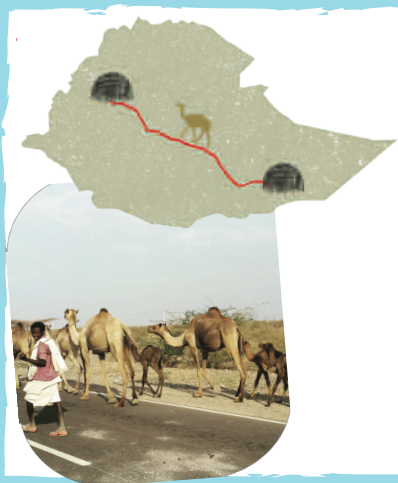
# TOPIC 2

## LIVING WITH CHANGE

• **ASSAR research asks: How do men and women (of different groups and ages) in Afar make changes in their households to respond to risks and adapt better to environmental change?**

• **We found that Afar pastoralists are doing three main things to cope with and adapt to climate change:**

- Increasing pastoralist activity or mobility to try to overcome climate-related impoverishment.
- Shifting from pastoralism into agriculture and salaried jobs.
- Diversifying livelihoods.



- Women and men are affected differently, as are the old and young. Young people are finding it hard to achieve their hopes and dreams, especially in urban areas.
- Moving into new activities can mean some tough decisions. Sometimes households need to split into different locations. It can be hard to move into activities that do not rely on climate, and not everybody is mobile.
- Being unable to move when there is a drought can seriously impact on people, especially women and the elderly.
- More support is needed to increase employment opportunities that do not rely on natural resources or affected by the weather and climate. This will help to build people's ability to adapt and become more resilient to a changing world.

• **Important action outside pastoralism and farming include:**

- Creating opportunities and providing skills training that match up with the realities of the job market.
- Providing access to affordable credit, initial capital, training and mentoring to start micro-enterprises.

• **For people staying in pastoralism and farming, they want support to:**

- Increase access to drought resistant livestock species or seed varieties that ripen quickly when rainfall is available.
- Reduce infestation of plants such as Prosopis.
- Provide access to agriculture insurance and low-cost water saving technologies such as drip irrigation and rainwater harvesting.

• **To increase resilience of all, we must:**

- Improve basic services such as electricity, water, health, including maternal health .
- Strengthen productive and social safety net programs to help more households recover from environmental shocks and stresses.
- Improve the way water is made available.



• **Through our work we hope to support people by:**

- Working with policy makers to help them understand how people live with change, how change affects people differently and the things people, especially women and more vulnerable people, need to be able to do to adapt.

- Helping local communities through training e.g. to manage Prosopis themselves through providing capacity building activities.

- Undertaking further research e.g. on wellbeing, youth aspirations, migration.



# TOPIC 3

## MANAGING CHANGE



- Making sure everyone has access to the resources they need requires coordination across different sectors and levels of government, but it also needs the participation of people living and working in the Awash Valley so that they can explain what they want and how they want it to happen.

- ASSAR research highlights the importance of institutions working together regionally and nationally while also valuing the knowledge local people have. This will help to manage complex problems such as:

- Fairly managing the use of water from the Awash river as it flows through the region

- Changes in pasture availability brought about by different ways the land is used or the spread of invasive plants such as Prosopis.

- Reducing risk from drought - many Afar pastoralists have told us they have been forced to travel further with their herds, increasing the time that they are away from their families.

- Resolving conflicts - because of restricted access to pasture and water, pastoralists are coming into greater conflict with other herders as they travel far from their customary grazing sites, especially in drought years.



- Strong efforts are being made to address the problems of resource management in a changing climate, but key challenges exist:

- Resource management planning often occurs in a disintegrated and top-down manner.

- Little voice is being given to local perspectives when designing interventions.

- Weak land use planning in the area.



- Through our work we hope to support government action in the following ways:

- Working with policy makers at local and national levels to promote working together on resource management planning.

- Improving existing institutional arrangements to coordinate resource management better.

- Valuing people's knowledge of their environment and including them in decision-making, especially traditionally marginalised people, like women and youth (e.g. including traditional forecasters in prediction of weather, rainfall patterns and drought).

- Focusing especially on advising the national Prosopis Task Force and Pastoral and Agro-Pastoral Task Force (PAPTF) on integration and participation.



# TOPIC 4

## FOCUS ON PROSOPIS



- One of the biggest challenges this location faces is the spread of Prosopis, which has been increasing in area and density year-by-year.

In our research we focused on understanding the problem of Prosopis and its potential solutions, including gaining different perspectives on managing it.

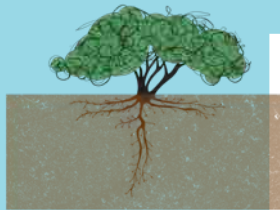
- In 2013, Prosopis was thought to cover approximately 3,605 km<sup>2</sup> of the Afar region and this could increase up to about 5,024 square kilometres (based on the amount of land that has a suitable habitat for Prosopis).

- This means that more than half of the land that is suitable for Prosopis has already been invaded. In Amibara Woreda, between 1973 and 2004, the plant expanded into new areas at a rate of over 3 square-kilometres per year. By 2020, nearly 31 percent of this Woreda could be covered by the invasive shrub.

- During the ASSAR project we discussed various ways to stop the spread of Prosopis and removing it from important places such as near to water sources. We also explored its benefits and sought people's views on increasing the harvest and use of the plant.

People had different opinions on which methods they preferred and no method was consistently the most favoured across all sites where we worked.

- Very few people thought that complete eradication was possible, although this was what people wanted.
- Of the different options we discussed the most popular was getting rid of the plant in places that are important and finding ways to use Prosopis on a very large scale.
- However, some people, such as representatives from non-governmental organisations favoured approaches that relied on communities to manage spread of the plant.



- From the discussions we had with people we think that any approach to Prosopis should include:

- Flexibility, so different ways of controlling Prosopis can be used in different places with particular needs.
- Good consultation and discussions with those working on the land to help people decide on which approach they would like to adopt, so they are fully aware of the strengths and weaknesses of each management technique.
- The adoption of a national strategy which can be adapted to suit local conditions. Decentralisation can help this approach to work as long as local government has the resources and power to act.



- Through our work we hope to support management of Prosopis in the following ways:

- Working with the national government to strengthen their understanding of different stakeholders' perspectives and to use our findings to support their work on Prosopis.
- Helping local communities by providing training on different ways to manage Prosopis and other natural resources such as soil conservation.
- Looking for ways to develop new research plans focussing specifically on the Prosopis problem and its management in Afar and other areas of Ethiopia.

