PROMOTING EFFECTIVE AND SUSTAINED ADAPTATION IN EAST AFRICA

ASSAR
Adaptation at Scale in Semi-Arid Regions

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The five-year (2014-2018) Adaptation at Scale in Semi-Arid Regions (ASSAR) project uses insights from multi-scale, interdisciplinary work to inform and transform climate adaptation policy and practice in ways that promote the long-term wellbeing of the most vulnerable and those with the least agency.

The semi-arid regions of East Africa, where many people rely on rain for their crops and livestock, are among the most food-insecure regions in the world. Communal conflict and population displacement add additional and ongoing challenges to regional security and peace.

Climate change is bringing a new dimension to East Africa's vulnerability, partly because the institutional and economic capacity to deal with the impacts of climate change is often inappropriately allocated and structured.

It is therefore essential to understand how to enhance the ability of communities, local organisations and governments in East Africa to adapt to climate change in a way that minimises vulnerability and promotes long-term resilience.

Our work has three overarching themes that cuts across all areas of our research:

THEME 1: Land and water access

THEME 2: Linkages at higher scales

THEME 3: Social differences in adaptation

Using these themes, and building on existing work in the region – on topics such as agricultural interventions, drought-resilient agriculture, and pastoralist access routes – our research focuses on identifying adaptation options that improve the lives of the marginalised, so that we can avoid those that make their lives more challenging. Specifically, we focus on four topics:

- Understanding how conservancies might enhance or undermine adaptation to climate change in northern Kenya.
- Understanding the effectiveness of villagisation and irrigation activities as adaptation strategies and at improving people's lives in Ethiopia.
- Understanding the governance of adaptation to identify which aspects of decentralised governance structures support adaptation, and which don't.
- Understanding how household structures in rural and urban areas of semi-arid East Africa shape the ability of individuals to respond to risks and adapt to climate and social change.

COUNTRY RESEARCH

Do conservancies help or hinder community adaptation to climate change?

In Kenya, over the past 20 years, conservancies have gained popularity as a community-based model for co-managing wildlife resources on the border of game reserves and wildlife corridors. This approach is thought to be doubly beneficial by providing local communities with opportunities to diversify their livelihoods, while supporting government efforts to sustainably manage and conserve wildlife.

However, little attention has been paid to the actual and potential negative impacts of these conservancies on local communities. For example, over 90% of Kenya's wildlife is found in the arid and semi-arid areas of the country, on land used primarily and extensively by pastoral communities. These pastoralists need to keep their herds mobile to access key grazing and water sources. By restricting this mobility, conservancies can alter pastoralists' resource access, and compromise their ability to cope with changing climates.

In our work, we aim to identify the positive and negative trade-offs of the conservancy model by analysing both its ecological and socio-economic impacts. We are particularly interested in understanding how conservancies might enhance or undermine adaptation to climate change. We focus on two conservancies in northern Kenya that represent different ownership structures and land tenures. We use a participatory mapping approach, focus group discussions and key informant interviews to:

- Analyse the governance structures of the conservancies.
- Determine the changes in pastoralist access to pasture and water following the introduction of conservancies.
- Understand how conservancies affect people's ability to adapt to climate change.

We expect our findings to yield practical insights for policy and practice by indicating how to adjust the design of conservancies to optimise their benefits and better enable them to support climate change adaptation.

Contact: *Oliver Wasonga, University of Nairobi*
Email: *oliverwasonga@cariaa.net*

Will villagisation and water management impact climate change adaptation?

In Ethiopia, as droughts and floods continue to affect the lives and livelihoods of millions of people, so the government has initiated strategies to help people cope. One such strategy is 'villagisation', a process whereby pastoralists are encouraged to settle in villages and produce subsistence crops, rather than tend to mobile livestock herds. To support this livelihood transition, the government provides the farmers with water for crop irrigation, and for their home and animal needs.

However, the effectiveness of villagisation and irrigation as adaptation strategies, and their impacts on water availability and people's livelihoods and wellbeing, are poorly understood. We already see that villagisation, and the shift from pastoralism to agropastoralism, is fundamentally, but differently, altering people's vulnerabilities depending on their social group (e.g. gender and wealth). We also see that the interplay of villagisation with other land uses (expanding urban areas, expanding industrialised agriculture and protected areas), constrains the amount of land available for pastoralism – particularly the crucial drought-reserve land that encompasses significant water resources. Further, as the distribution of water to different people and areas is government-managed, local people have little control over their water access.

Working in the Middle Awash Valley of the Awash River Basin, we aim to better understand the contributions of villagisation and irrigation activities to climate change adaptation and to the improvement of people's lives.

More specifically we are:

- Evaluating the impacts of villagisation and irrigation on water availability and distribution.
- Evaluating the socio-economic implications of these strategies for pastoral communities.
- Seeking a critical understanding of the positive and negative effects of the transition from pastoralism to agropastoralism on different social groups (including individuals within households).
- Investigating if and how these strategies align with people's aspirations.

By identifying some measures that could put people's wellbeing at the forefront of agropastoral transition plans, we aim to assist the Ethiopian government in improving the design and delivery of sustainable development policies.

Contact*: Mohammed Assen, Addis Ababa University*
Email*: moh_assen@cariaa.net*

REGIONAL RESEARCH

Can decentralised governance structures support adaptation?

Adapting to climate change is a challenge that cuts across multiple levels and sectors of governance. Yet there is little understanding of how different governance structures (e.g. neoliberalism, decentralisation) impact the adaptation process.

Drawing from case studies in Awash, Ethiopia and Isiolo, Kenya, we examine the effects of decentralised governance structures on adaptation. We consider key sectors (e.g. water and disaster risk reduction) and numerous governance dimensions – from policy drivers to community/district interactions. We also include diverse perspectives from people at national, subnational and community levels, garnered through semi-structured interviews and focus group discussions. Finally, we explore how decisions about adaptation are made, and how they link to wider political processes.

In so doing, we aim to identify which aspects of decentralised governance structures support adaptation, and which don't, and to use this insight to inform sub-national and local governance priorities.

***Contact**: Poshendra Satyal, University of East Anglia*
***Email**: p.satyal@cariaa.net*

How does household structure affect risk to climate change?

It's well documented that people from different social groups (e.g. gender, age, ethnicity) are differently exposed to the impacts of climate change, and that they vary in adaptation ability and opportunity. Less well considered is that household structure – wherein roles, responsibilities and resource allocations are negotiated – also results in particular wellbeing outcomes. Therefore, understanding changes to household structure (e.g. polygamy, female headship, multiple generations, and multiple locations) is central to understanding the risks of individuals to climate change.

In our research, we explore how household structures in rural and urban areas of semi-arid Kenya and Ethiopia shape the ability of men and women (of different groups, ages and statuses) to respond to risks and adapt to climate (and social) change. More specifically, we explore:

- The implications of climate and social changes for livelihood options across different household structures.
- The engagement of women with farming, trade and collective enterprises – including social protection interventions.
- The aspirations of the youth and their responses to specific experiences of climatic variability and extreme events (droughts/floods).
- Changes in patterns of marriage and the rise in female headship.
- The ways in which conflicts over land and water resources (including between different ethnic groups) affect different genders.
- Whether differential patterns of mobility and migration contribute to adaptation.

Our work will inform the targeting of social protection and livelihood diversification interventions, and the role of female-led organisations in adaptation processes. In addition, understanding the changes in gendered roles, responsibilities and social norms – especially in relation to accessing scarce resources such as water – has the potential to make adaptation interventions gender-sensitive. Finally, and importantly, this understanding will ensure that social and gender inequalities, including intergenerational inequalities, are not aggravated.

***Contact**: Nitya Rao, University of East Anglia · **Email**: n.rao@cariaa.net*

Understanding the future together

To respond to the threat of climate change, people and institutions at all levels within a country need to adapt and re-evaluate the ways they manage climate-related risks, both now and into the future.

Through a novel research method called Participatory Scenario Analysis (PSA), we bring together a wide range of affected stakeholders, to explore the impacts of two issues on different groups of people:

- The spread of *Prosopis juliflora* in the Afar region of Ethiopia.
- Pasture scarcity in the northern rangelands of Kenya.

PSA is a deliberative, two-stage process through which groups of stakeholders – including those traditionally excluded from decision-making – are guided through an exploration of the positive and negative trade-offs associated with different scenarios or visions of the future. We engage stakeholders in separate workshops so that we can better explore and deliberate group-specific challenges.

During **Stage 1** of the PSA, we hold discrete workshops with different stakeholder groups to understand who the winners and losers are likely to be in the near-future under different approaches to managing *Prosopis juliflora* and pasture scarcity. We also aim to uncover a critical understanding of the ways that these management approaches will assist or impede adaptation over the next 30-40 years.

In **Stage 2** of the PSA process, we bring together stakeholders from local- to national-levels of governance to identify equitable and sustainable responses to the challenges identified in Stage 1.

The insights generated through this work will help inform sub-national priorities for governmental and non-governmental actors alike.

ABOUT ASSAR

ASSAR uses insights from multiple-scale, interdisciplinary work to improve the understanding of the barriers, enablers and limits to effective, sustained and widespread climate change adaptation out to the 2030s. Working in seven countries in Africa and South Asia, ASSAR's regional teams research socio-ecological dynamics relating to livelihood transitions, and the access, use and management of land and water. One of four consortia under the Collaborative Adaptation Research Initiative in Africa and Asia (CARIAA), ASSAR generates new knowledge of climate change hotspots to influence policy and practice and to change the way researchers and practitioners interact.

For more information go to www.assar.uct.ac.za

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