ASSAR

ADAPTATION AT SCALE IN SEMI-ARID REGIONS

2014–2018

PUTTING **PEOPLE** AT THE CENTRE TO ENABLE EFFECTIVE **CLIMATE ADAPTATION** IN SEMI-ARID REGIONS

INSIGHTS FROM KENYA

UNIVERSITY OF NAIROBI

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VULNERABILITY AND ADAPTATION TO CLIMATE CHANGE IN SEMI-ARID KENYA

ASSAR'S FOCUS IN KENYA

Semi-arid regions in northern and eastern Kenya, are highly dynamic systems that experience changeable and sometimes extreme climates, adverse environmental change, and a relative insufficiency of natural resources. Historically, people living in these regions had livelihoods that were well-suited to these conditions. Today, however, many communities are showing increased vulnerability due to challenges such as political marginalisation, underdevelopment, poverty, inequality, unfair governance systems, maladaptive policies, and increasing population growth. Climate change is expected to exacerbate existing levels of vulnerability, as temperatures rise, rainfall decreases and seasonal climate patterns become more variable.

From 2014-2018, ASSAR's East Africa team worked in Kenya and Ethiopia to better understand these existing and upcoming challenges. Made up of a team of researchers and practitioners from the University of Nairobi (UoN), Addis Ababa University (AAU), University of East Anglia (UEA), and Oxfam GB, we concentrated most of our work in Kenya in the counties of Isiolo, Meru and Samburu (our case study area). In both Kenya and Ethiopia we used a parallel case study approach in order to best analyse how changing social and environmental conditions interact in practice. We combined these analyses with activities at regional and national levels to generate transferable insights for policy and practice on the changing nature of vulnerability and response to environmental change. We hope that this detailed work can contribute to knowledge on how to enhance the ability of communities, local organisations and government to adapt to climate change in ways that minimise vulnerability and promote long-term resilience.

Key insights

- Factors like gender, age, location, livelihood and status intersect with social and economic characteristics like household composition, social capital, marital status, income and educational attainment to determine people's capacity to effectively respond to climate risks and impacts. Adaptation policies need to consider these intersecting factors explicitly to enable the most marginalised to adapt.

- Although decentralisation has enabled local officials to respond to local needs flexibly and effectively, greater coordination between levels and sectors of government, as well as more resources, better alignment of planning and development cycles, and better provision of timely and relevant information, would further strengthen action on water governance and disaster risk management.

- Conservancies have benefitted communities with improved governance, more livelihood opportunities, and enhanced social services. To continue to build resilience, further improvements are required to reduce tensions between communities within and outside conservancies, enable more sustainable and equitable approaches to natural resource management and livelihoods, and address ongoing problems associated with human-wildlife conflict.

- Recognising that interventions will result in trade-offs, with some people winning and others losing, is important. Including affected populations more concretely in decisions about interventions will help to identify the main trade-offs, support more effective design and implementation of interventions, avoid unintended consequences – especially for the most vulnerable – and help to ensure that the needs of those typically excluded from decision making are heard and valued.

ABOUT THE RESEARCH

Research priorities

ASSAR's research in Kenya was structured around three overarching dimensions that were identified through an in-depth review of literature, and the insights and priorities of stakeholders at local, county and national levels. The first dimension was land and water use/access through which we examined the connection between human wellbeing, land tenure, resource access (such as water and pasture for livestock or crops for domestic use), and resource governance (including traditional mechanisms). Our second dimension was linkages at higher scales. Here the objective was to understand issues like the dynamics of pastoral mobility across larger-scale landscapes (such as districts and counties), and the ongoing process of fiscal and political decentralisation. The third and final distinctive dimension of our research was to understand how vulnerability, adaptive capacity and the implications of different adaptation responses are socially differentiated – within communities, between individuals, and according to ethnicity, gender and age.

Research focus

Drawing on the three dimensions of adaptation outlined above, ASSAR's research in Kenya focused on four specific research topics that are critically important in the semi-arid regions of Northern Kenya.

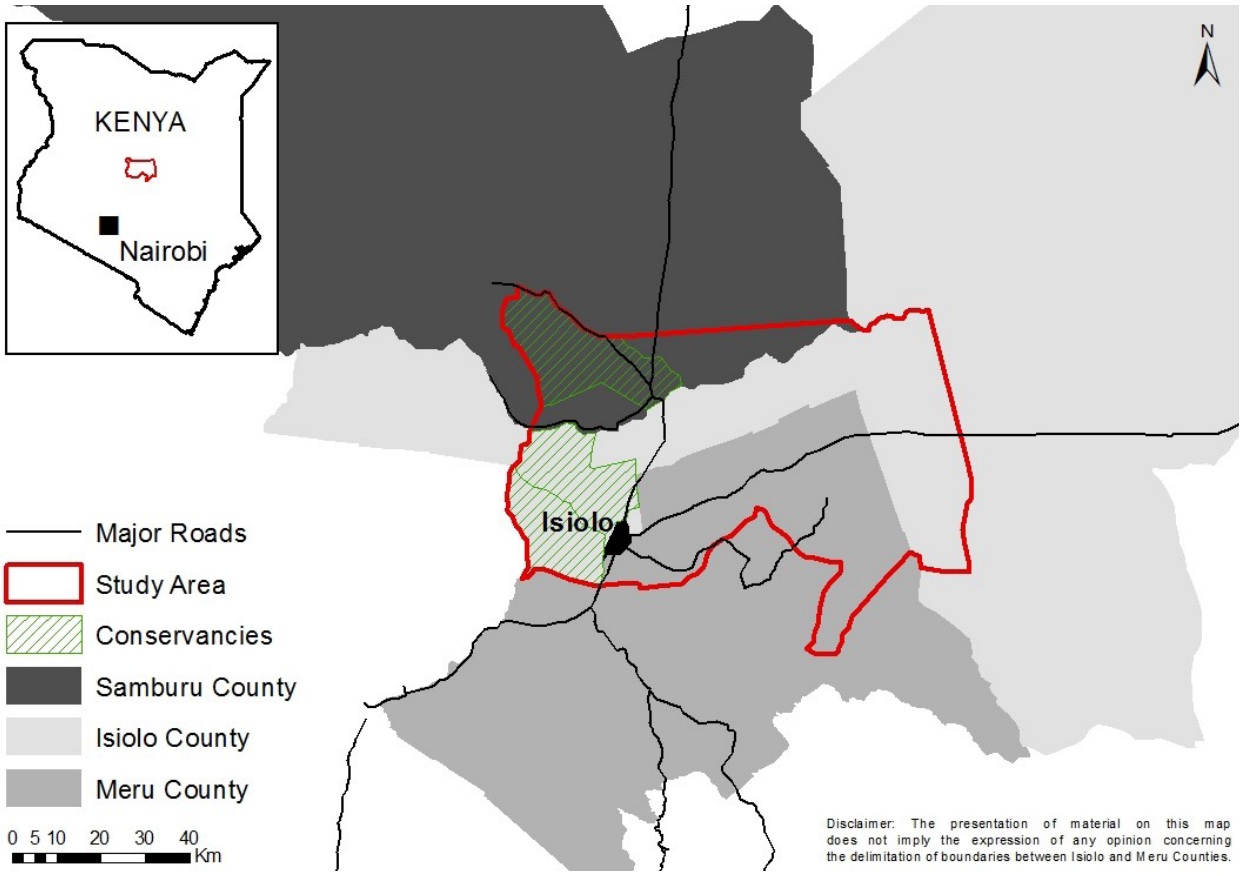
- *Intra-household dynamics* and resource access under social transition: We explored the association between changing resource access and household dynamics under social transition (agro-pastoral and urbanisation), including intra-household change in roles, relations, aspirations, livelihoods, and translocal risk and responses.

- Decentralisation and *governance for adaptation:* We examined how governance for adaptation is articulated through the decentralisation process (including key sectors such as water, resources, disaster risk reduction, climate services), covering cross-scale dimensions from policy drivers to community/district interaction.

- *Conservancy model* for resource management: We analysed the implications of conservancies for vulnerability and adaptation (especially via access to resources and decision making).

- Perspectives on *pasture scarcity*: We generated insights on socially-differentiated perspectives of pasture scarcity, and the social justice and equity implications of different management interventions.

Our research was grounded in the prevailing dynamics of our case study sites (such as economic, development, migration, social, gender, cultural and policy change) and set within the broader dynamics of agro-pastoral transitions and the ongoing process of decentralisation (of planning and resources). Issues of gender and other forms of social differentiation were embedded within all the research topics. Through this research, we generated knowledge of who the current winners and losers are in relation to adaptation to climate-related, socio-ecological risks, and some more critical understanding of the probable implications in terms of barriers and enablers as we look to the future (over the next 20-30 years).



Case study sites

Our main study site was at the intersection of the drier, more arid, pastoralist parts of northern Kenya and the wetter, more humid, and agricultural areas of central Kenya, and comprised parts of three counties: Isiolo, Meru and Samburu. The area exhibits a strong climate gradient and range of agro-ecological conditions due to the proximity of Mount Kenya. On the highland belt around Mount Kenya and the Nyambene Hills, agro-pastoral farming communities within the dry sub-humid zone can be seen cultivating a diverse range of crops including rain-fed maize, sorghum and *miraa*. At lower elevations, agroecological conditions become progressively dry and arid with livelihoods focused more exclusively on pastoralism. The three counties are dotted with a mosaic of land uses such as national parks, private/community conservancies, and game reserves under county governments. The local communities are confronted with multiple livelihood risks, resulting primarily from: the effects of climate variability and change; insecurity; breakdown in effective systems to manage resources, and other changes resulting from ongoing development interventions; and limited livelihood opportunities.

Approach

ASSAR's integrated research approach in Kenya was to operate primarily at the national level during the inception phase before narrowing and deepening the research work, ultimately to focus in the latter stages of the project on a set of researchable topics that are important and of interest to communities, local government and non-governmental stakeholders, and national level institutions.

Our initial work in Kenya began in November 2014, with meetings with stakeholders, including policy makers, NGOs and local government working on climate change adaptation, and with communities on the ground. These provided an important opportunity for us to hear about activities and priorities in-country at a range of levels. We introduced the ASSAR project and shared information about what ASSAR planned to do in the region. This was also a first opportunity for feedback from national-level stakeholders on the project approach. Discussions centred on: i) what people thought were the most critical issues relating to climate impacts, vulnerability and adaptation, including wider development pressures or challenges in semi-arid regions; ii) what they saw as the main research needs in order to address these issues and strengthen resilience especially of the more vulnerable social groups; and iii) what key initiatives, projects, events and documents we should take into account.

The initial scoping work with stakeholders both built on and fed back into the stakeholder mapping exercise

carried out during the inception period, which identified major actors (governmental, non-governmental, private organisations) working at national, regional (East Africa), and international levels on various cross-cutting issues of climate change adaptation and vulnerability.

This early work with stakeholders also contributed to the Regional Diagnostic Study, which was completed in early 2015, together with a broad-ranging review of existing academic and non-academic literature. It highlighted that people's vulnerability to climate change is rooted in wider aspects of livelihoods and development trajectories, and that adaptation to climate change may need to look beyond business-as-usual approaches in development and environmental management.

Over ASSAR's lifetime, we engaged with stakeholders across scales, from the community level up to national policy makers in the relevant departments, as well as key NGOs and civil society organisations working in climate change adaptation and related areas in the region. For example, we held two workshops in February 2016 at national and local levels at the midpoint of the project to feedback to stakeholders, and to gain their feedback on emerging results and research priorities. These activities formed part of our Research-into-Use (RiU) strategy, which integrates our research work with uptake and dissemination activities to realise impact on the ground, and which uses stakeholder engagement to focus on efforts which are likely to be most relevant for disempowered groups. Our Participatory Scenario Analysis (PSA) research on the issue of pasture scarcity provides a practical example of this integrated thinking.

Through our applied approach – and by integrating research, RiU and capacity building activities – we supported stakeholders to analyse issues that are relevant to them, identify preferred solutions, and provide additional support to enable them to work towards achieving meaningful change on the ground. Building on the research and engagement work undertaken through the PSA process, ASSAR also brought together stakeholders for dialogue on the issue of conservancies. This dialogue arose out of the conservancy research that generated insights on this relatively new form of natural resource governance in northern Kenya.

FINDINGS AND RECOMMENDATIONS

ETHNICITY, GENDER AND AGE AFFECT THE ABILITY OF PEOPLE TO RESPOND TO CLIMATE CHANGE

Factors like gender, age and location intersect with social and economic characteristics like household composition, social capital, marital status, income and education level to determine people's capacity to effectively respond to climate risks and impacts. Adaptation policies need to consider these intersecting factors explicitly to enable the most marginalised to adapt.

What we did: Our study of intra-household dynamics and adaptation under social transition is based on in-depth interviews with households in Isiolo and Meru counties, conducted in May-June 2017. These comprised life history interviews with a selective sample of 10 households each from three sites: two rural sites, one Meru (Gituli) and one mixed Borana/Meru (Kachuru); and one peri-urban largely Borana site (Kambiodha). Where possible we interviewed two people in each household; in the peri-urban site this was often two women. We looked specifically at monogamous, polygamous, divorced/separated, and widowed households to see how household type can mediate adaptation to climate change. Our overarching research question was: How do men and women (of different groups, ages and statuses) use changing household structures and relationships to respond to risks and adapt more effectively?

What we found: We found a clear difference in adaptive responses by gender, age and location. Older people – both men and women – were more easily able to adapt than the younger generation, given their positions of power and authority within households. Younger men lacked livestock and alternative employment, hence were frequently unable to contribute to household incomes, and often took to drugs. Their inability to earn pushed younger women into a range of enterprises, to ensure the survival of themselves and their children, adding to their work burdens. Apart from a lack of time, some of these women were also involved in risky ventures aimed at fulfilling their educational aspirations for their children, with adverse consequences for their health and wellbeing. The nature of these risks varied – from engaging in casual sex-work or unprotected relationships with men for short-term security (Kambiodha and Kachuru), to expanding their activities into pasture areas that were prone to conflict (farming by Meru women), to taking on excessive work burdens in terms of long hours of arduous labour. In the absence of adequate state support, young women in particular found it difficult to manage both productive and care work. Forming household units with their mothers or female kin was increasingly common as an adaptation response. New household types and forms of cooperation are emerging, and these need to be understood and better supported.

Recommendations

- Adaptation and risk-reduction strategies are often based on external assumptions about who is most vulnerable, how people respond to risk and what needs to be done to help them. However, greater collaboration with communities is needed to better understand local contexts and the intersecting factors leading to specific vulnerability profiles of communities and households.

- Households should not be treated as homogenous units. Instead, researchers, practitioners and decision makers should recognise the diversity of each household, the ways in which power and responsibilities are shared, the relationships that exist within them, and how these factors lead to particular risk management outcomes and levels of wellbeing for different household members.

- Adaptation policies and programmes should be more sensitive to the socially-differentiated nature of people's everyday realities and experiences. These strategies should seek to address the underlying causes of vulnerability and question the traditional and cultural norms that have led to unequal rights and opportunities among different groups. Changing aspirations (e.g., from rural to urban livelihoods) should also be considered when planning adaptation and development strategies.

- Livelihood diversification is often promoted as an adaptation and risk management strategy, yet what people diversify into is critical. While it may increase incomes, it does not always improve resilience or enhance wellbeing. To counteract any negative effects, improved social protection and social safety nets should accompany livelihood diversification efforts.

- Vulnerable men and women need support to deal with the multiple challenges that they face. They should be equipped with the technical capacity, basic skills (e.g., literacy), infrastructure (e.g., for improved access to potable water), and services (e.g., childcare, agricultural extension services) that they need to become more resilient. Providing information and improving access to jobs, resources and markets can help vulnerable people to diversify their livelihoods and ensure they are not driven into risky or illegal behaviour out of desperation.

DECENTRALISATION PRESENTS OPPORTUNITIES AND CHALLENGES FOR ADAPTATION

Although decentralisation has enabled local officials to respond to local needs flexibly and effectively, greater coordination between levels and sectors of government, as well as more resources, better alignment of planning and development cycles, and better provision of timely and relevant information, would further strengthen action on water governance and disaster risk management.

What we did: Decentralisation is a strong policy issue in Kenya following the adoption of the 2010 constitution; some sectors are more devolved than others. Despite the importance of decentralisation, there exists limited empirical evidence on the effects it has on local adaptation processes in the country, particularly so in the context of arid and semi-arid regions. Our research in Kenya focused on the impacts and outcomes of decentralisation on the management of water-related issues (water stress, drought and flooding). We focused on analysing different policy drivers (e.g., Kenya's Vision 2030), devolved planning processes (e.g., formulation of County Integrated Development Plans in Isiolo), and local experiences and expectations (at community/village levels). Our analysis was based on 24 semi-structured individual and group interviews at the local, county, and national levels conducted during two rounds of fieldwork in March 2016 and February 2017.

What we found: Devolution has afforded more opportunities for flexibility (e.g., Isiolo County's response to water crises) and public participation, and there are some beacons of good practice to learn from – although these remain the exception rather than the norm. For example, the National Drought Management Authority's (NDMA) use of Ward and County Adaptation Planning Committees and a County Steering Group has resulted in better coordination of actions. Devolution has been accompanied by increased resources and there has been some improvement in access to services and information. However, there is also more competition between sectors, often greater bureaucracy and shortfalls in capacity and skills. Furthermore, a shortfall exists in coordination and integration between different sectors and levels of government and with activities of other non-state actors in Kenya. The distance and disconnect between different stakeholders and levels of government is more pronounced between national and county levels than between county and local levels. There is also incoherence between planning and development cycles. Devolution has seen a substantial transfer of power and authority to county and local levels. However, different institutions and actors appear to have overlapping and competing relationships due to the incomplete nature of devolution (for example, national bills and legislation clarifying responsibilities are yet to be passed, or changes have not been implemented).

Recommendations

- The management of a resource as scarce and susceptible to change as water is becoming increasingly critical. Our findings indicate that a clear division of responsibilities and strong platforms for coordination are needed to make water governance more effective and inclusive.

- While technical solutions are important, successful management of scarce water resources and better disaster risk reduction requires meaningful participation from local actors. As part of this, decision makers need to understand the unique context of each community, and consider how factors like gender, age, wealth, education level, and ethnicity impact people's abilities to participate in water governance.

- Similarly, better preparedness and actively promoting responses that reduce the risk and impacts of disasters also requires a clear division of responsibilities and effective and inclusive platforms for coordination.

- Devolution is creating opportunities and the potential to do things in new ways. Beacons of good practice need to be shared and applied at different levels of government and with other stakeholders to help further integrate and improve coordination.

- A key aspect of integration is the linking of different levels of decision making through institutional arrangements that also address the issues of coordination, capacity building and knowledge sharing. These are critical to support more effective approaches to climate change adaptation.

HARNESSING CONSERVANCIES TO REDUCE VULNERABILITY

Conservancies have benefitted communities with improved governance, more livelihood opportunities, and enhanced social services. To continue to build resilience, further improvements are required to reduce tensions between communities within and outside conservancies, enable more sustainable and equitable approaches to natural resource management and livelihoods, and address ongoing problems associated with human-wildlife conflict.

What we did: Community wildlife conservancies have been put forward as a good way to support livelihoods and promote community-based conservation. In

northern Kenya, community wildlife conservancies were introduced in the early 2000s and have altered the way land is managed for livestock and wildlife through the introduction of new institutions as well as governance structures. The approach has been adopted by a number of communities and, as of 2017, there were over 30 conservancies established with support from the Northern Rangeland Trust (NRT). Our research focused on understanding the impact of these conservancies, and the ways their governance changes have affected access to grazing resources among the pastoral communities. The study involved 20 key informant interviews and 12 focus group discussions with the communities within and outside the conservancies, as well as with government officials and non-governmental conservation agencies.

What we found: We found that the establishment of conservancies has brought benefits to communities in three main areas: governance, livelihoods, and the provision of social services. First, the new governance structure that includes the elders in the committees and/or consults the elders on certain decisions, alongside a more representative approach (through the inclusion of women and youth), has enabled more inclusive governance within conservancies. Second, in terms of livelihoods, the conservancies have provided employment opportunities for members of local communities as rangers, managers, and lodge attendants. Additionally, micro-financing through cooperatives has supported community members to start small businesses. Third, through the conservancies, social amenities such as schools, health centres, and water facilities have been provided, and bursaries have increased access to schooling. However, a number of challenges persist. The co-existence of livestock and wildlife has increased, rather than decreased, human-wildlife conflict. Communities continue to lose livestock and crops to predators, with no compensation for their losses.

Perhaps more significantly, some community members report that wildlife are prioritised above their own interests. This issue is compounded by the inadequate provision of preventive health interventions for livestock, as the presence of wildlife increases the opportunities for disease transmission. The relationships between communities inside the conservancy and those outside remain problematic. For example, issues persist in terms of finding suitable ways to manage resources within the conservancy, especially during times of scarcity. Furthermore, the effectiveness of grazing management bodies is undermined by actions of some members who use their positions to facilitate access to conservancy resources by non-members (by passing off livestock as their own, and selling livestock from outside the conservancy instead of resident stock under the NRT trading livestock offtake programme).

Recommendations

- As long as the main source of livelihood for Kenyan pastoralists is extensive livestock production conservancies must ensure that pastoral communities have sufficient access to pasture and water. This is critical, as restricting access to conservancy resources renders members and neighbouring non-member communities vulnerable to the impacts of droughts, climate variability and climate change.

- Community wildlife conservancies established in future should adopt landscape-level thinking to ensure that members and non-members can collaborate and benefit equally. For example, some successful eco-lodges now benefit from thriving wildlife populations despite being situated hundreds of kilometres away from protected areas.

- It is necessary to strike a balance between conservation and pastoral livelihoods. For example, the incentives for communities to co-exist with wildlife should be significant enough to compensate for (1) the opportunity costs of dedicating critical grazing areas for conservation, and (2) the ongoing wildlife-related losses of crops and livestock.

- Practical measures to support conservancy functioning include:

    - All conservancies would benefit from a register of members for ease of identification. This is important for key decision making that may require voting (such as election of officials), as it will help to ensure that only genuine members vote.

    - Each conservancy needs to brand its livestock with unique marks for ease of identification. This will help for theft reports, to identify any non-member livestock grazing on the conservancy, and to identify 'genuine stock' during offtake by NRT Trading.

    - For successful co-existence of wildlife and livestock, a livestock disease prevention plan is needed to counteract potential health challenges associated with the possible increase of wildlife populations.

MANAGEMENT OF NATURAL RESOURCES REQUIRES BETTER ENGAGEMENT WITH TRADITIONALLY-MARGINALISED STAKEHOLDERS

Interventions create winners and losers, and opinions vary about the best way to address the issue of pasture scarcity. Including affected populations more concretely in decisions about interventions will help to identify the main trade-offs, support more effective design and implementation of interventions, avoid unintended consequences – especially for the most vulnerable – and help to ensure that the needs of those typically excluded from decision making are heard and met.

What we did: Pasture scarcity is a major issue for pastoral and agro-pastoral populations in the semi-arid regions of Kenya, impacting on livestock and the wellbeing of populations, contributing to increased levels of population mobility, creating conditions for conflict, and leading to other negative impacts. In our research on pasture scarcity we focused on understanding both the problem and its potential solutions, including understanding how different ways of managing the problem are viewed by different people, and what helps or hinders different approaches. We used PSA with three communities in the case study area to explore the positive and negative trade-offs associated with different scenarios or visions for future resource management, and assess the relative preferences for these. The PSA work was augmented by key informant and semi-structured group interviews on how the pasture scarcity problem was perceived, and which solutions were most preferred in the study area.

What we found: Urgent and effective approaches are required to address the issue of pasture scarcity. As the climate becomes more unpredictable and interacts with other causes of vulnerability, maintaining access to adequate pasture is likely to become even more pressing. However, attempts to manage the availability of pasture fairly have only been partially effective because such initiatives have commonly suffered from design and operational issues. For example, attempts to stimulate sustainable land management have been hampered by the competing stakeholder interests and power imbalances that prioritise the interests of certain groups over others, increasing the likelihood that interventions will fail, with potentially negative consequences for populations already experiencing pasture scarcity. Making *a priori* assumptions about how people in a particular setting are likely to perceive and prioritise a specific form of intervention would be a risky endeavour. Results from our PSA research show that across the three communities and for the government and NGO groups, two scenarios – (1) zoning of land to establish regulated patterns of land use and seasonal pasture, and (2) changing herd composition to encourage a shift from grazers (cattle and sheep) to browsers (camels and goats) – were the most supported. The strong favouring by community members of a zoned pattern of land management, compared with a more individualised basis of private pasture enclosure (which was the least favoured scenario), matches the arguments being made by many commentators on sustainable management of pastoral lands and, at least in part, reflects equity concerns. With regard to the changing herd composition scenario, in both government and NGO groups there was a sense that this change in livestock composition toward more drought-resistant animals was something already happening and likely to continue. This scenario also had slightly higher support among women. In two of the communities, a scenario of transitioning out of pastoralism also performed quite well. Many community members, while nervous of the economic risks of transitioning, and its familial and cultural implications, may be actively considering or aspiring to a different livelihood arrangement.

Recommendations

- Whilst the views of communities were reasonably consistent there was some divergence between the socially-differentiated groups (older men, younger men, older women and younger women) within each community. Consequently, it is necessary to recognise that affected populations experience the impacts of pasture scarcity in socially-differentiated ways and, crucially, have varying views and opinions on the most appropriate responses to the issue at hand.

- The views and perspectives of affected communities must be included within decisions on the most appropriate ways and means to manage environmental change. To achieve this, meaningful and effective consultation that carefully considers power imbalances is required to allow a plurality of opinions and voices to be heard. One way to achieve this is to consult with socially-differentiated groups of people separately.

- Any intervention will produce trade-offs. Exposing and making these trade-offs explicit, particularly those that affect marginalised populations, can aid institutional actors in identifying not only which interventions are preferred, but by whom and at what cost or benefit.

WORKING WITH STAKEHOLDERS TO IMPROVE ADAPTATION AT MULTIPLE SCALES

ASSAR has successfully worked across various scales in Kenya, from national to local levels. Given the differing capacity needs of stakeholders at these scales, we adapted our communication and capacity-strengthening strategies to suit different audiences. These audiences included local community members, government and NGOs working at county level; representatives from ministries at national government and with international funding agencies such as DFID. Through a range of activities, we worked to enhance stakeholder understanding of vulnerability and adaptation, and encourage increased uptake and support for policy and practice interventions that our findings have highlighted.

Ultimately, one of the goals of adaptation is to reduce the vulnerability of different groups to climate-related impacts. Through our collaborative work with different stakeholders we have actively sought to embed ASSAR findings into the practices of local governmental and NGOs in Isiolo County. Using the existing networks cultivated by the University of Nairobi and Oxfam, and fostered through the research activities, we have been able to engage in depth over a sustained period of time with representatives of government and NGOs alike in Isiolo County. Through the relationships that we have built up over this period, we have been able to exchange knowledge and contributed to changes in policy and practice stemming from ASSAR research. For example, we have engaged with the Office of the Deputy Governor, the Ministry of Environment, and the Ministry of Agriculture, Fisheries and Livestock to support the development of key policies on land tenure and climate change that are currently before the County Assembly.

The stakeholder mapping helped us to identify who to engage with in a more sustained way over the life of the project at a national level. For example, ASSAR supported an NDMA officer to attend the Climate Science Winter School in Cape Town, building capacity and good working relationships. This engagement has been maintained throughout the lifetime of the project and has provided ASSAR with an important means of disseminating key findings and influencing a boundary organisation that sits at the interface of policy, practice and research with national reach. Further work at the national level has recently commenced, ASSAR has provided findings to the Council of Governors, and our findings have also influenced the strategic priorities and programme design of DFID in their work in Kenya.

One of the primary ways we engaged with stakeholders was through the PSA process. As outlined above, the PSA work sought to achieve impact on the ground by boosting capacity of participants to analyse key challenges and identify possible solutions. Once a set of solutions was identified, ASSAR supported learning and capacity building using a peer-to-peer approach whereby participants interacted with other communities that had experienced similar problems and implemented solutions (e.g., the reinvigoration of the *Dedha* system of land management, pasture production, and increasing the numbers of camels and goats). Through the peer-to-peer process communities learned about potential solutions to pasture scarcity.

Building on the engagement in the PSA work, we brought together stakeholders to discuss the findings of the conservancy research. Conservancies are an emotive issue and the debate about the benefits (or otherwise) has become polarised. We sought to reset the debate locally in Isiolo by bringing together key stakeholders (including communities affected by conservancies) for open dialogue. This work helped to undo some of the myths about conservancies and provided a channel through which communities and implementing organisations can more openly discuss the opportunities and drawbacks of conservancies, supporting more informed decision making.

In addition to these targeted, face-to-face engagement with stakeholders, we reached a wide range of audiences through blogs, social media and research outputs (infographics, photo essays, and multimedia). Collectively, with these activities ASSAR has embedded its key messages in a coalition of stakeholders that should be able to communicate the findings and help to translate them into action long after ASSAR has finished.

NEXT STEPS FOR RESEARCH, POLICY AND PRACTICE

Climatic conditions in the arid and semi-arid regions of Kenya are becoming less predictable. This, along with other changes that are occurring, is increasing the pressure on many people's lives and livelihoods. Whilst many initiatives have been implemented in these areas, too many tend to be short lived and run the risk of increasing the dependency of communities on handouts. One of the most effective ways to support communities in these areas is to increase their own agency and give them a stake in the decisions that affect them. People in these communities are not just agentless victims, they can and do actively manage the risks to which they are exposed. Supporting these people to give them more agency and power to enact changes in their own lives and influence the decisions that impact on them, is crucial.

While times are hard for everyone, some people are more affected than others. Ethnicity, gender, age, religious beliefs and traditional norms all affect people's vulnerabilities to climate change, and their responses to it. There is a clear need to recognise and value these differences when designing, planning and implementing interventions. Moreover, this situation suggests that research – especially that done in the context of developmental challenges – needs to focus on directly addressing challenges and opportunities faced by the most vulnerable and disempowered. People and communities in the semi-arid regions are not all the same yet are often treated so. Our research has highlighted how there are substantial differences between people. For example, micro-finance initiatives typically target women, yet young men would also benefit from this form of support. Similarly, older women and men tend to have different vulnerabilities and capacities from younger groups, highlighting the value in targeting different types of support at different groups of people.

Much rhetoric about reducing vulnerability focuses on the need to take a long-term approach. Too often, however, efforts seem to concentrate on crisis management rather than tackling the more fundamental and structural issues that are at the root of many of the more episodic events more commonly attributed to drought or poor rainfall. Tackling vulnerability to climate change means acknowledging that much progress can be achieved by addressing the many developmental challenges that exist. For example, providing safe water and sanitation, and supporting enterprise and increasing livelihood opportunities are all as (if not more) important to build resilience in arid and semi-arid regions as the interventions that are targeted more specifically at risks linked to a changing climate.

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ADDITIONAL RESOURCES

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