

Led by the Overseas Development Institute, with Kenya Markets Trust and the Grantham Research Institute on Climate Change and the Environment, this project has two streams: the first focuses on Kenya, the second on Tanzania and Pakistan; this summary focuses on Kenya

Research for climate-resilient futures

## Context

Increasing climate variability and extreme events affect livestock production, productivity, incomes and food security, which means pastoralists and agro-pastoralists in semi-arid lands (SALs) are some of the most vulnerable to climate change impacts. As well as climate change, pastoralists and agro-pastoralists also face other drivers of change, including land tenure and land-use changes, population growth, sedentarisation, rapid urbanisation, globalisation and conflict.

Around 25% of Kenya's total land mass is semi-arid and is home to about 11 million people, out of a national population of 47.2 million. Many semi-arid areas of Kenya have recently transformed from communal land ownership to private. Pastoralists and agro-pastoralists in SALs have been greatly impacted by this; such changes in land ownership have caused fragmentation, land sales and growing inequality, as well as affected how people access and use land. This in turn has impacted how pastoralists and agro-pastoralists respond and adapt to changes in climate. In order to design climate change adaptation programmes that build resilience in semi-arid economies, it is vital to understand how land tenure affects climate change adaptation strategies and land-use investments.

## Aims

We explore the role of land ownership in reducing climate vulnerability and enhancing climate-resilient economic development in Kenya's SALs. We recognise that land tenure changes affect different social groups differently. Therefore, we address gender and equity issues by looking at the impacts of land privatisation, together with those of climate change, on different socioeconomic groups, including women and young people. We focus on Kajiado County, and its predominately livestock-keeping communities, under the contrasting land tenure and management arrangements of communal and private land ownership.

## Results

- Land tenure status influences pastoralists' adaptation strategies when responding to drought. Under communal land ownership, families rely on mobility and temporarily move to communal dry season grazing zones. Under private land ownership, families practise rotational grazing on their land; rely on the purchase

Pathways to Resilience in Semi-arid Economies (PRISE) is a five-year, multi-country research project that generates new knowledge about how economic development in semi-arid regions can be made more equitable and resilient to climate change. PRISE aims to strengthen the commitment of decision-makers in local and national governments, businesses and trade bodies to rapid, inclusive and resilient development in these regions. It does so by deepening their understanding of the threats and opportunities that semi-arid economies face in relation to climate change.

Where we work: Senegal, Burkina Faso, Kenya, Tanzania, Ethiopia, Pakistan, Tajikistan and Kyrgyzstan.

Member organisations: Overseas Development Institute, UK (lead organisation); Grantham Research Institute for Climate Change and the Environment, UK; Innovation Environnement Développement en Afrique, Senegal; Sustainable Development Policy Institute, Pakistan.

Country Research Partners: Regional Environmental Center for Central Asia, Tajikistan; University of Ouagadougou, Burkina Faso; Kenya Markets Trust, Kenya; Mountain Societies Research Institute, Kyrgyzstan.

PRISE research projects:

Research area 1: Migration futures in Asia and Africa: climate change and climate-resilient economic development.

Research area 2: Migration, remittances, adaptation and resilience in arid and semi-arid regions of Senegal and Tajikistan.

Research area 3: Harnessing opportunities for climate-resilient economic development in semi-arid lands: adaptation options in key sectors.

Research area 4: Enabling environment for private sector/multi-stakeholder action to strengthen resilience to climate change.

Research area 5: Property rights, investments and economic development in the context of climate change in semi-arid lands.

Research area 6, Part 1: Cross-boundary multi-scale governance of semi-arid lands: Implications for climate resilience and economic development.

Research area 6, Part 2: Resilience to climate-related shocks and stressors in Kyrgyzstan: developing resilience indicators to predict well-being.

Research area 7: Water governance in semi-arid lands: political and economic insights for the management of variability and extremes in a changing climate.

and storage of fodder; and destock their livestock (sell livestock before it declines in condition and dies).

- In some areas, as communal group ranches are subdivided, pastoralists are developing new social networks and using existing social networks to access key resources like water and pasture. Individual land owners regroup subdivided land parcels to maintain access to pasture and water. They may also continue to use their individual parcels as communal holdings to preserve pastures for use during the dry season. In other cases, where families have already subdivided their land between different sons or co-wives, they continue to use land communally for livestock keeping.
- Maintaining open spaces is vital for livestock production when responding to climate change, as mobility and flexibility are required. However, land privatisation and increasing subdivisions of land to family members make this difficult. Pastoralists' and agro-pastoralists' desire for land security and land ownership leads to more disconnected small parcels of land, which conflicts with the need for greater mobility and flexibility.
- Privatisation can lead to greater investment opportunities for those who can secure land, but it marginalises the poor in the process. Communal tenure regimes might spur on more equitable investments and provide better tenure security for poorer groups with benefits for the whole community.
- In private tenure systems, women lack the same rights to land as men. Land privatisation processes give land titles to men. Moreover, families commonly pass land on to, and divide it among, sons. So, women lack the authority to make land-use decisions. Under communal tenure systems, women say they have more rights to, and ownership of, land, as the group ranch is owned by the entire community.
- Young men are not allocated land during subdivision in private tenure systems, although they have the potential opportunity to inherit land from their fathers. In cases where families have sold their land, young men feel like they have lost out and want to get the land back.

## Policy recommendations

- National and county governments that mainstream climate change in policy development, implementation and programme coordination will better support sustainable land use planning, drought mitigation interventions, and suitable land tenure forms in SALs. The Kenya Climate Change Working Group is required to develop climate-smart coping and adaptation strategies according to the National Adaptation Strategy, and can help governments develop county integrated development plans.
- County and national land use planners can provide critical support for climate-resilient pastoralist livelihoods through appropriate low-cost interventions. For example, during periods of stress pastoralists will benefit from policies that include appropriate corridors for livestock mobility and the provision of critical resources like water holes and strategic grazing areas, which are often privatised during land tenure transformation.
- The Ministry of Lands and Physical Planning and the Ministry of Agriculture, Livestock and Fisheries can signal their aim to address the challenges that women and young people face in land ownership by supporting climate change adaptation programmes and land-based investments that are inclusive of social groups that lack strong rights to land. These efforts would be strengthened if the National Land Commission, the Ministry of Lands and Physical Planning, and Land Control Boards put in place legal provisions that enhance and secure land rights for women and young people, and make their consent mandatory when land subdivision and sales take place.
- In land policies and investment strategies, county governments and the National Land Commission can recognise the rights of various social groups and agro-ecological conditions, and enable different land tenure regimes that support more productive, equitable and sustainable ownership and investments.

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