



# PRISE

Pathways to resilience  
in semi-arid economies



## Nurturing relationships of trust with key stakeholders: the PRISE approach to influencing county- and national-level policy-making in Kenya

Story of Change

Research for climate-resilient futures

### Why the arid and semi-arid lands (ASALs) of Kenya?¹

- Out of all of Kenya's land mass, 80% is arid and semi-arid lands (ASALs); about 60% of Kenya's livestock is found in ASALs, which is valued at US\$4.2 billion dollars (KNBS, 2012).
- The livestock sub-sector contributes almost 5% to Kenya's Gross Domestic Product (GDP) and close to 20% of the Agricultural GDP. The sub-sector employs 50% of the agricultural labour force and is the main source of livelihood to over 10 million Kenyans living in ASALs (Kenya Climate Smart Agriculture Strategy 2017-2026, 2017).
- The 2009 census showed that Kenya's animal resource base was comprised of 17.5 million cattle, 27.7 million goats, 17 million sheep, 3 million camels, 31.8 million domestic birds and 1.8 million donkeys (GoK, 2010a).
- The increase in human population (in 2018 it was estimated at 50 million people) is putting pressure on the arable land. The need to access social services and ecosystem services is forcing people to migrate into forests, wetlands and fragile semi-arid lands (SALs).
- Climate change continues to pose a serious threat to the country's food security and the livelihoods of many farmers and pastoralists who occupy these lands.

### PRISE projects in Kenya

Four of PRISE's seven research areas are implemented in Kenya. These are:

- **Project 1:** Migration Futures in Asia and Africa: climate change and climate-resilient economic development.
- **Project 3:** Harnessing opportunities for climate-resilient economic development in semi-arid lands: adaptation options in key sectors (with a focus on the livestock value chain)
- **Project 4:** Fostering an enabling environment for private sector/multi-stakeholder action to strengthen resilience to climate change
- **Project 5:** Property regimes, investments and economic development in the context of climate change and economic development.

### Engaging policy-makers: a roadmap

Research from the four PRISE projects in Kenya has implications for the policy sector. For these policy messages to be heard by policy- and decision-makers, KMT/PRISE involved key stakeholders in the project and research processes from the outset. KMT/PRISE research teams developed and implemented stakeholder engagement strategies that targeted national and county governments and the policy processes in which they are involved. Research teams developed stakeholder engagement plans, including an engagement matrix (Figure 1), to categorise the type of influence each project aimed to achieve and which decision-making stakeholders should be targeted.

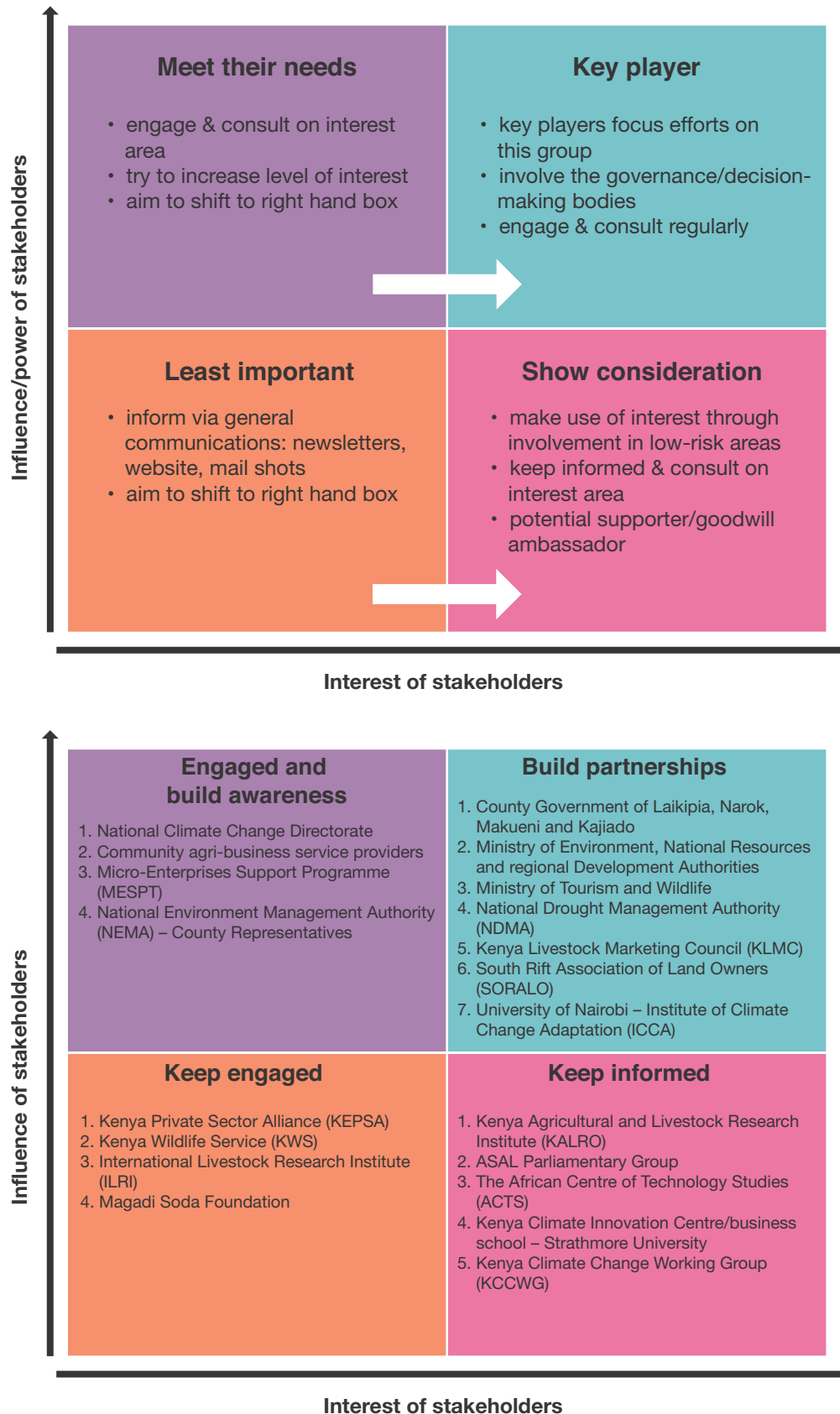
In 2015, KMT/PRISE held a national workshop to set the research agenda and to initiate the process of working with decision-makers. In 2017, the team carried out targeted stakeholder engagement and Research into Use activities by working with county and national policy-makers to draft development and policy plans based on PRISE research results. Research activities and continuous interaction with local and policy stakeholders has continued to take place between 2016 and 2018. The impact of this ongoing relationship

¹ Kenya Climate Smart Agriculture Strategy 2017-2026 (2017): <http://canafrica.com/wp-content/uploads/2017/05/MINISTRY-OF-AGRICULTURE-LIVESTOCK-AND-FISHERIES-3.pdf>

Header image: Maasai people #5, © Roger Smith, CC2.0

with stakeholders is expected to come to fruition in 2019 and beyond, as evidenced by the participation and commitment by stakeholders to incorporate PRISE findings into policy plans, and tracked by the PRISE Outcome Mapping system.<sup>2</sup>

Figure 1: Engagement matrix for the various stakeholder groups and their sphere of influence



<sup>2</sup> Outcome Mapping was used to track the evolution of stakeholder engagement across the lifetime of the projects. PRISE projects developed a set of common Progress Markers – or indicators – for each group of stakeholders in order to gather information on these changes and reflect on them, as well as to adjust stakeholder engagement strategies. Examples of Progress Markers included: “Stakeholders participating in discussions and expressing interest in PRISE research findings/recommendations, approach and methodologies” and “Use of PRISE material in policy and process documents”.

## Box: PRISE research evidence

### Implications of PRISE research on Kenya's SALs

1. Research by PRISE/KMT shows there has been a large decline in the cattle population in SALs, and an increase in camel and small stocks (sheep and goats) between 1977 and 2016. Livestock growth will be low if tenure, vulnerability to climate change, and human wellbeing are not addressed. This will not support trade in livestock in Kenya, within the region or for export markets, which means the country's meat deficit must be met from neighbouring countries.
2. The projected climate in terms of rainfall and temperature indicate that SALs will continue to be vulnerable to food insecurity, increased malnutrition and poverty – all of which are compounded by low investments in climate-smart interventions and businesses.
3. The movement of livestock and people across counties and countries in the region will result in increased resource-use conflict, cattle rustling, the spread of disease and the destruction of rangelands due to the over-exploitation of land and water. Differences and changes in land tenure across countries will hinder the movement of livestock in the future.
4. The private sector is not incentivised to invest in SALs due to poor infrastructure, inadequate enabling policies, and poor livestock management (grazing and disease control). This means producers in SALs cannot access international markets that may offer them better returns and support, improving the livelihoods of local communities.

### Policy-relevant key messages and findings from PRISE that provide evidence to support policy development

1. The integration of semi-arid economies into national development plans and adequate climate-smart investments is key to achieving county and national development goals.
2. National and county governments should mainstream climate change in policy and strategy development, implementation and coordination in a participatory manner. This includes National Adaptation Plans (NAPs), County Integrated Development Plans (CIDPs), National Climate Change Action Plan (NCCAP) and County Spatial Plans (CSPs).
3. National and county governments and development partners should, as a priority, adopt and implement policies that support and enhance the adaptive capacity of women and vulnerable groups. Women may be disproportionately affected as they are often confined to the informal sector's most marginal agricultural activities, such as small-scale agriculture, processing, and trade in cereal, milk and poultry products, which are especially exposed to the effects of climate change (Gannon et al., 2018).

## Influencing national and county policy in Kenya

The implementation of KMT/PRISE projects in Kenya from 2015 to 2018 coincided with electoral changes in the country. Kenya held national elections in 2017, which meant that the National Government and the 47 County Governments needed to develop their five-year development strategies for the 2018-2022 period. This presented KMT/PRISE with an opportunity to work with policy-makers at the national and county levels to develop their plans. At the county level, KMT/PRISE worked with the counties of Kajiado, Narok, Laikipia and Makueni.

The second policy opportunity KMT/PRISE targeted was to focus on two national policy documents that needed to be developed under the new constitution. These were the National Climate Change Action Plan (NCCAP 2018-2020) – coordinated by the Ministry of Environment and Forestry – and the National Wildlife Conservation and Management Strategy (NWCMS) under the Ministry of Tourism and Wildlife. As a result of KMT/PRISE's ongoing stakeholder engagement with key national-level policy-makers, stakeholders from these ministries invited researchers from KMT/PRISE to have input into these policy processes.

Two factors that explain why KMT/PRISE was invited to contribute are:

- the robust and cordial relationships that KMT/PRISE cultivated with key decision-makers and stakeholders throughout the four years of project implementation through: a) ongoing meetings, b) stakeholder engagement events, c) workshops and one-on-one meetings, and d) presenting PRISE findings at conferences and workshops where key stakeholders were participating;
- the quality and relevance of PRISE research findings..



Source: The Star, Kenya. Kajiado Governor, His Excellency Joseph Ole Lenku (centre) during an event on August 18, 2017./KRGAT.

Kajiado County government is set to implement a County Adaptation Fund, a pastoralist programme that has already been piloted in six wards of Isiolo County since 2013.

On Tuesday, 10 April 2018, at the opening of Kenya Pastoralists' Week, Kajiado Governor Joseph Ole Lenku said that the adaptation plan is key among all pastoralist counties to safeguard their livelihoods.

"As the Governor, I will ensure that we develop a framework that will enable the enactment of the County Adaptation Fund legislation in our County Assembly so as to promote smart farming among pastoralist counties in Kenya," he added.

This collaboration made it possible for KMT/PRISE researchers to use results from PRISE to inform long-term policy and strategy development planning. This engagement is vital given that – at both the national and county levels – there are still large gaps in knowledge about the projected impacts of climate change on livestock, crops, water and wildlife, all key economic sectors in Kenya's semi-arid economies.

### **The County Plans: influence through workshops with key stakeholders**

**Kajiado County** – PRISE Projects 1, 3, 4 and 5 have engaged directly with stakeholders in Kajiado County. KMT/PRISE researchers held a dissemination workshop in February 2018 and engaged a large number of stakeholders from county government, non-governmental organisations (NGOs), community-based organisations, the private sector and research organisations. The key message PRISE disseminated at the workshop was that projected climate scenarios predict a significant reduction in suitable rangelands for cattle. Subsequent policy messages focused on the need for the county to: support sustainable land use planning; prepare to enhance drought mitigation interventions; and use land tenure reforms to secure critical areas

for livestock and wildlife, such as dry season grazing areas, corridors, and water points. These points were brought out in the County Integrated Development Plans and County Spatial Plan sessions, where PRISE participated and advised on the importance of establishing a County Climate Fund, a legislation that aims to be in place for the 2018-2022 period.

**Laikipia County** – Researchers working on PRISE Project 3 (cattle value chains) have engaged with stakeholders in Laikipia County to highlight evidence that pastoralist households that adapted to climate change are significantly more food secure compared to those who did not adapt. Households with more livestock and access to credit are found to be more food secure because they can sell off livestock or access credit facilities more easily, and therefore get disposable income to pay for food. However, cattle feed, water and grazing were the biggest impediments to these household production systems, therefore the development of alternative feed sources that are adaptable to the changing climate in SALs are critical. Commercialising livestock is one strategy that might help address these issues. KMT/PRISE presented its results to a wide range of stakeholders along the livestock value chains, including local communities, traders, butchers and policy-makers in Laikipia County. Key policy-makers – including the Deputy Governor Honourable John Mwaniki, the County Executive Committee (CEC) Minister for Agriculture, Livestock and Fisheries Dr Lucy Murugi, CEC/Minister for Trade, Tourism and Cooperatives Nicholas Biwott Tirop and other county officials – attended a research dissemination workshop held by KMT/PRISE in February 2018.

County officials were interested in developing forage banks and invited the KMT/PRISE livestock team to work with them to ensure the successful start and implementation of an upcoming DFID-funded AMAYA Triangle Initiative, which includes forage development, livestock traceability and livestock fattening and marketing. The Amaya Triangle brings the counties of Laikipia, Isiolo, Samburu, West Pokot and Baringo under a new initiative that aims to introduce commercial livestock farming that uses modern technology, such as feedlots (yards for animal feeding operations prior to slaughter) and disease-free compartments for livestock. KMT/PRISE is now leading the implementation of specific components of the project, including livestock traceability.

**Narok County** – PRISE researchers from Projects 1 and 4 have been directly involved in influencing policy-making in Narok County. The private sector – especially micro-, small- and medium-sized enterprises (MSMEs) plays an important role in sustainable development at the national, county and local levels. In Kenya’s SALs, such as Laikipia and Narok, SMEs account for approximately 80% of total employment and support the livelihoods of more than 50% of households (Source: <http://prise.odi.org/wp-content/uploads/2018/09/Climate-change-adaptation-among-female-led-Micro-Small-and-Medium-Enterprises-in-semi-arid-areas-A-case-study-from-Kenya.pdf>). Most SMEs operate within local settings and resources, therefore they are well integrated into communities and can support livelihoods for different social groups including the poor, women and other marginalised and vulnerable groups in SALs. Public policies and investments need to account for the flexibility, mobility and diversity in SAL systems and remain responsive to the changing needs of different actors – including those of informal enterprises, women and producers’ cooperatives (Gannon et al., 2018).<sup>3</sup>

In February 2018, policy-makers at a Narok County workshop were particularly interested in PRISE findings on: climate change analysis of rainfall and temperature over the last 50 years; climate projections for the 2030s, 2050s and 2070s; livestock trends and projections; and human migration. County-level decision-makers asked KMT to incorporate PRISE findings, adaptation options and policy recommendations into the county CIDP. The PRISE team worked with the county to revise sections of the CIDP on climate and livestock to include climate change, and the potential of livestock production in Narok County and its contribution to the Big Four Agenda on food and nutrition security.



Source: Isaiah Esipisu. The Laikipia Deputy Governor, Honourable John Mwaniki, giving the official opening speech during a PRISE dissemination workshop in Laikipia County.

During the workshop the Laikipia Deputy Governor emphasised that he will endeavor to see “grass going to cattle rather than cattle going for grass...”



Source: Nation Newspaper

Farmers in Laikipia County growing hay following a push by the county government to promote this venture. Agriculture Chief Officer Martin Mwangi said the County Government distributed 9.4 tonnes of Boma Rhodes seeds to farmers in the initial year of production. “The grass was planted in 2,350 acres of land across the county and the approximate production by last season was 600,000 bales in 2014 and 800,000 bales in 2015,” Mwangi said

Read more at: <https://www.standardmedia.co.ke/article/2000200262/commercial-hay-growing-gives-laikipia-farmers-a-lifeline>

**Makueni County** – Makueni is one of the counties from which many of its people migrate to pursue better livelihoods; this is mainly driven by climate change and population increase. Migration as an adaptation strategy enhances household resilience as monies remitted back home can improve household resource bases. In Makueni County, 80% of households rely on remittances. Migrant returnees also contribute to innovative environmental initiatives and the diversification of coping strategies to capitalise on some of the opportunities presented by the changing climate. However, PRISE research also found out that migration is gendered as it requires physical, social and financial resources that aren’t equally available to women. Additionally, due to power dynamics within households, women do not necessarily make decisions on where and when to migrate. It is imperative for all decision-makers – public, private and business – to develop migration-embedded policies and strategies that make use of the opportunities presented by climate change (See: <http://prise.odi.org/research/the-road-to-climate-resilience-migration-as-an-adaptation-strategy>). The county government asked

<sup>3</sup> <http://prise.odi.org/research/supporting-private-adaptation-to-climate-change-in-semi-arid-lands-in-developing-countries/>

the KMT/PRISE team to provide technical inputs and incorporate PRISE evidence on climate change into the County Spatial Plan. KMT/PRISE has provided this support, though the document has yet to be finalised.

### Box: The Big Four Agenda

The Big Four Agenda was established in December 2017 by His Excellency the President of the Republic of Kenya. The agenda is focused on key basic needs that are critical in uplifting the standard of living of Kenyans on the path to becoming an upper middle-income country by 2030.

The agenda includes **affordable and decent housing**, affordable **healthcare**, **food and nutritional security**, and employment creation through **manufacturing**. These four areas are expected to bolster strong inclusive economic growth. The Big Four Agenda is expected to guide development efforts, strategies and actions during the 2018-2022 period.

### PRISE supporting policy-makers drafting the National Climate Change Action Plan (NCCAP 2018-2022)

The Ministry of Environment and Forestry is developing Kenya's NCCAP for the next five years. The KMT/PRISE team contributed by providing input on the adaptation actions for the NCCAP. This was attributed to KMT/PRISE's strong working relationship with two key private sector stakeholders – the Kenya Private Sector Alliance (KEPSA) and the Ministry of Environment and Forestry – and the quality of PRISE research findings that were extremely relevant in helping to shape the policy document.

The Adaptation Technical Committee requested that PRISE review and give technical input into the first two chapters, with a focus on climate change situation analysis and projections, and the potential impacts of climate on the agriculture, biodiversity and health sectors. The PRISE contribution to this national policy document is acknowledged here: <http://www.environment.go.ke/?p=5222>.

### PRISE technical expertise in the National Wildlife, Conservation and Management Strategy (NWCMS)

The Ministry of Tourism and Wildlife began the process of developing the national strategy on wildlife, conservation and management in Kenya in March 2017. Mohammed Said, a PRISE researcher with KMT, was nominated in June 2017 to join the strategy synthesis team to support decision-makers with evidence from PRISE research on the links between climate change and changes in wildlife numbers in Kenya, where the population of many species of wildlife has fallen to critically low levels. The synthesis team conducted nine regional meetings, covering all 47 counties, and nine regional community meetings. It has also met experts and interest groups in the wildlife sector.



Photo: [www.environment.go.ke](http://www.environment.go.ke). Cabinet Secretary Keriako Tobiko receives the NCCAP 2018-2022 draft report from Principal Secretary Charles Sunkuli on the 3 July 2018.

The NCCAP is the principal legal tool through which climate change mainstreaming will be undertaken in Kenya.

It has identified seven priority areas including: disaster risk management; food and nutrition security; water and the blue economy; forestry, wildlife and tourism; health, sanitation and human settlements (including resilient buildings); manufacturing; and energy and transport.

Most of Kenya's wildlife is found in ASALs outside protected areas, the same key areas for pastoralists who keep livestock. The NWCMS understands that communities living with wildlife need to have access to resources and benefits that may arise from the tourism industry. PRISE research recognised that wildlife and wildlife conservation areas play an important role for livestock grazing and marketing. As a result, this strategy does promote the mutual co-existence of the two in Kenya's ASALs (See YouTube: <https://youtu.be/HHCsS2hL7o>).

The NWCMS was launched in May 2018 as a blueprint to guide Kenya in the conservation of its wildlife by His Excellency the Vice President of Kenya William Ruto, at the Kenyatta Convention Centre.

## How PRISE research evidence has influenced the future direction of KMT

KMT's long-term goal is to deliver large-scale, systemic change in selected markets that will benefit everyone, including small businesses, larger firms, investors, producers and consumers, as well as the country of Kenya itself.

PRISE evidence has been used to inform the future work of KMT and its partners, including helping to:

1. Identify the projected number of livestock keepers/pastoralists who will be impacted by climate change for each county. This will help to estimate the number of vulnerable beneficiary households that may be targeted for a particular intervention in a specific county.
2. Generate and use empirical evidence on how climate change has impacted livestock population numbers and dynamics, and the expected projections in light of climate change. This will inform a) which livestock policy interventions need to be prioritised and where (e.g. abattoir viability for cattle, goats, sheep, camels and donkeys); and b) how to unlock the challenges along key value chains, livestock finishing and fattening services, marketing infrastructure, livestock water infrastructure, and livestock traceability.
3. Have a clear understanding of how changes in rainfall and temperature have affected the continued decline in crop yields and increased manifestation of crops and diseases, and how this will evolve in light of projected climate change. This will help the KMT agricultural inputs unit plan which crops/cultivars will best be suited to areas based on the projected climate change in the areas in which KMT works.
4. Inform the KMT water sector of how changes in rainfall and temperature have affected water quality, quantity, distribution and availability, and how this will evolve in light of climate change. This will help the sector plan where water storage, water conservation and climate-proofed infrastructure to be prioritised.



Photo: US Embassy His Excellency the Vice President William Ruto (centre left), Cabinet Secretary Ministry of Tourism and Wildlife, the Honorable Najib Balala (centre right), and the US Ambassador to Kenya (right) during the launch of the National Tourism Blueprint and the National Wildlife Strategy 2030.

### Box: Communicating to broader audiences

The KMT/PRISE team also developed a communications strategy that included using print and digital media to communicate PRISE research findings and discuss possible solutions on a broader scale. In 2018 alone PRISE work was featured/covered by print and digital media 10 times at the national, regional and international levels.

## Looking ahead: PRISE feeding into the Big Four Agenda

The KMT/PRISE team will continue to exploit the opportunities that the Big Four Agenda provides and work with the national government and the four counties to address issues of climate change, both in terms of the threats that it poses and also in the opportunities that it presents (including livestock value chain transformation and potential adaptation options to invest in SMEs, with a special emphasis on women and youth). Climatic and non-climatic factors will have significant impacts on the Big Four Agenda, as economic actors will be forced to alter their production systems to maintain their production capabilities under changing conditions. However, climate change can also lead to new opportunities for people and businesses in SALs, with opportunities to create new products and services, to develop new markets, and to access new funding streams and finance mechanisms.

It will be imperative to liaise with Kenya Private Sector Alliance (KEPSA) so that it can advise alliance members whose business/SMEs are agriculture based to factor in climate-related shocks, including reviewing the SME Act 2012, to make climate-smart decisions and address the aspirations of the Big Four Agenda and private sector players.

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.

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