

SPARC RESEARCH FRAMEWORK

A framework document to guide SPARC interventions
between 2023 and 2025



The programme

SPARC's intended impact is to inform policies, practices and investments that improve and support the resilience of pastoralists, farmers and agropastoralists in the context of recurrent and protracted crises. By 'resilience', SPARC means: **more diverse and sustainable options for those in crises** (including various forms of conflict and climate shocks) **to not only deal with today's shocks, but also to prepare for a future in which climate change and other changes will have increasing impact.**

To achieve this, SPARC aims to influence the policies, practices and investments of donors and governments in framing and responding to issues based on:

1. the generation of evidence and improved understanding of the problems and opportunities faced by drylands communities
2. building the capacity of donors, governments and humanitarian, development and climate change adaptation communities through convening and knowledge brokering
3. undertaking particular technical assistance as requested by development partners and governments, supporting them to apply evidence (as per point 1) and build their capacity (as per point 2) to improve the resilience of dryland communities, sowing the seeds for longer-term adaptation.

Priority areas

There are many potential areas upon which SPARC could focus evidence generation and knowledge sharing to meet its intended impact. However, cognisant of the potential for impact and the scope of the programme, SPARC has selected four interlinked priority areas:

1. Investments in resilience
2. Livelihoods and markets
3. Land and conflict
4. Innovation for resilience (technologies, solutions, processes and services).

Each area encompasses specific research projects that enable SPARC to have greater impact on supporting resilience. A few research projects cut across all four priority areas. SPARC is a research-into-action programme that informs policies,

practices and investments. These four priority areas are embedded in: an understanding of how related issues are perceived by donors and countries; and how political economy and power (including along gendered lines) influence framings and policy priorities so that evidence can be effectively positioned for use.

1. Investments in resilience

Key question: How can aid (humanitarian, development, climate change adaptation) best support and improve pastoralists' and farmers' resilience in a sustainable way?

The current food security crisis in the Horn of Africa draws attention to the need to prevent such crises by supporting the resilience of people who live there. This is also the objective of much funding for climate change adaptation. During the past decade (or more) there has been a growing consensus on the need to move the focus beyond the 'care and maintenance' aid model for people affected by crises. There is recognition to instead focus on the need to invest more in places where crises are recurrent, supporting those populations in not only coping with current difficulties, but also to be more resilient in the face of future challenges, of which climate change is already a significant shaper.

That easy consensus, though, sometimes masks the difficulties in managing external resource flows (whether from state investments, aid, climate funds, the private sector or individuals) to achieve the agreed-upon goals. The challenge is manifold. Even though 'building resilience' now attracts huge investment, little is known about the impacts of most externally funded resilience-building efforts on food security and poverty, or how local resilience-building efforts interact with and are nestled within climate and disaster risk management efforts (e.g. national to Regional Economic Community drought management mechanisms, livestock management plans or climate adaptation frameworks). And, resilience has different definitions in different fields: for example, what it means to be resilient in the face of a changing climate is different to what it means to be a resilient market in the face of external forces. As a process, resilience is underpinned by many elements, such as land tenure security, access to water and other natural resources, and financial services, as well as the flexibility, innovation and adaptability of livestock markets and value chains.

There is also little evidence for guidance on how best to use scarce investment resources – both financial and human – to build resilience. The impacts of such shocks span borders, given the transboundary nature of pastoral/agropastoral livelihoods, trade networks and markets,

TABLE 1: SPARC PROJECTS UNDER THE 'INVESTMENTS IN RESILIENCE' PRIORITY AREA

Project title	Short description
Resilience and water in the drylands	Water investments are often prioritised in the drylands. However, water investments have often been implemented in ways that create more problems than they solve. There is very little evidence that adequate consideration has been given to climate change or conflict dynamics in planning water infrastructure. As a result, aid investments may be promoting and locking in maladaptation. Thus, the issues of resource rights and conflict, climate change and resilience converge when it comes to water investments. SPARC will investigate what changes are needed to ensure that investments in water are based on good practices, using lessons that have already been learned from the sector and future climate projections. This research will focus not only on water systems infrastructure, but also on the politics and social organisation of water, taking into consideration issues such as resource rights and conflict.
The medium-term impacts of resilience investments in the drylands	SPARC is undertaking research in two countries (Kenya and Chad) and supporting research in a third (Ethiopia) to examine what happens when aid projects close. This research will return to aid projects that finished three to five years ago in Chad and Kenya, and will focus on: how changes took root in society and in people's lives; whether changes spread beyond the project area without further external resources; and who (if anyone) benefited. This research will support Mercy Corps' independent parallel study on its interventions in livestock production/marketing and financial inclusion in the Ethiopian drylands.
Risk financing models	Various new financing models are being piloted to support risk management in the drylands. Insurance is one promising model that is being piloted at both farm level (such as crop insurance and livestock insurance) and state level (e.g. African Risk Capacity (ARC) and ARC-Replica). However, its use to date has often been accompanied by significant donor subsidies, making it harder to know how far it should be developed as a self-financing ('sustainable') model. SPARC countries, many of which suffer from state fragility, conflict or insecurity, low levels of trust, weak legal systems and frequent crises, present an additional set of challenges for such approaches. SPARC will build on previous research to investigate how complex contexts have affected the functioning of different risk management approaches, and who has been able to benefit from them.
Transboundary climate and adaptation risk policy dialogues	Climate risks do not respect national borders and may be transmitted in a number of ways, such as through shared natural resources, or the movement of people and trade. The climate mitigation and adaptation actions taken by one country can have significant negative impacts on neighbouring countries. The African Group of Negotiators first recognised these transboundary climate risks and pushed for their inclusion in the Paris Agreement. SPARC is engaging with several Regional Economic Communities – the Economic Community of West African States (ECOWAS) and the Intergovernmental Authority on Development – to further unpack transboundary climate risks and explore existing mechanisms and financing options for their management.
Anticipatory action	SPARC is working to increase understanding around anticipatory action (i.e. how and under what circumstances it can reduce humanitarian need, and where it has limits) in countries facing protracted crises. A longitudinal study, with a similar methodology to the SPARC study on anticipatory action in Somalia , may be set up in the Sahel if there are signs of a slow-onset crisis. SPARC researchers will offer technical and analytical support to other learning in this area, such as that being undertaken by Save the Children in Kenya and Somalia. Finally, SPARC is supporting post-doctoral research on anticipatory action, which is managed through a separate financing facility.
Barriers to aid investments in fragile and conflict-affected states (FCAS)	SPARC is already researching the barriers preventing FCAS from receiving large flows of money from climate adaptation funds, and is examining in depth the policy context of climate adaptation in Chad, Niger and Somalia. This work, and further work in this direction, is an essential component of the learning needed to inform policy-making around investments in resilience and climate change adaptation in rural areas.

and natural resource bases. Many of those drylands are also affected by conflict – both violent and non-violent – partly due to decades of chronic marginalisation and underinvestment. Conflict is multifaceted, with ethnicity, political marginalisation, land tenure insecurity and the presence of armed groups driving various forms of conflict and creating deep vulnerabilities to climate shocks and change. In the face of different policy choices, it is often difficult to know which changes will prove maladaptive, and how to balance or reconcile competing interests at different scales (e.g. an individual's livelihood, and local, sub-national, national and multi-country interests) in the drylands.

Research projects in this priority area (see Table 1) will focus on the most relevant resource flows for learning lessons about aid: intended impacts; unintended impacts of investments; and the politics and institutional challenges of making aid flows happen at all. They will examine how transboundary climate and adaptation risks interact with various investments, and how narratives around conflict, climate, fragility and vulnerability influence policy and intervention. They will also draw upon evidence from the other SPARC priority areas, particularly those focusing more deeply on livelihoods and markets, land and conflict, and on those innovations that address challenges or unlock opportunities for agropastoralists and pastoralists in fragile contexts.

2. Livelihoods and markets

Key question: How can we better understand pastoral marketing in specific marketing chains and use this knowledge to help chains become more effective, economical, equitable and resilient, while fostering innovation?

The livelihoods of pastoralists in the rangelands of SPARC countries centre on livestock: raising, milking and selling camels, cattle, goats and sheep. Most pastoralists derive the majority of their subsistence and income from keeping and selling livestock. Increasingly, off-farm livelihood opportunities within the livestock sector support those who need to adapt, either permanently or temporarily, by leaving livestock production as their primary livelihood.

Climate change, conflict and other hazards are bringing about increasingly frequent and intense disruptions to pastoral livelihood systems. Shocks, such as drought or animal disease outbreaks, often result in major losses of livestock and markets being flooded with livestock that is in poor condition, then sold at knock-down prices. This pervasive disease management and control challenge is exacerbated by the inadequate provision of animal

health services in remote agropastoralist and pastoralist communities. To date, most livestock health research has focused on identifying the structural barriers that constrain pastoralist access to animal health services, with limited interest in understanding the behavioural, normative and social drivers that underpin animal health seeking practices. Yet these factors are particularly important, as they influence considerably whether and how people (particularly pastoral women) interact with animal healthcare systems.

For some policy actors, particularly international donors, pastoral livestock is a dead-end activity, a livelihood that barely provides for subsistence at the best of times, where the prospects for increased production and incomes are meagre, and where mobility might be exacerbating conflict, insecurity and environmental issues. However, evidence suggests otherwise. There are growing flows of livestock being marketed from the drylands. Above all, there are the burgeoning exports of live cattle and sheep to coastal West Africa, Saudi Arabia and the Gulf. These flows are neither temporary nor short-lived – they have existed for decades and, according to kept records, have been increasing, particularly at the ports of the Red and Arabian seas. Existing knowledge also indicates that pastoralists use diverse approaches inherent to their livelihood systems to respond dynamically to shocks and reduce the risks of conflict. Research (from both SPARC and other sources) shows that existing and emerging approaches used by pastoralists vary based on: a variety of household- and community-level factors; the specific shock to which they are responding; and the broader governance environment.

Understanding more about these approaches – including the factors that influence how households prioritise certain mechanisms over others, and which approaches pastoralists see as most/least effective in building resilience to new and emerging shocks – is key to understanding the evolution of dryland livelihood systems and the most promising opportunities for livelihood support.

By focusing on livestock supply chains – their structure, functioning and performance – SPARC research can look for what is being done through donor and government investments, as well as through individuals and households, to improve economic and well-being outcomes for pastoralists and agropastoralists. Studies under this priority area (see Table 2) will not look narrowly at marketing alone, but at any and all factors that lead to better outcomes, such as the health of livestock coming to market, business model technological innovations in marketing chains, and so on.

TABLE 2: SPARC PROJECTS UNDER THE 'LIVELIHOODS AND MARKETS' PRIORITY AREA

Project title	Short description
Livestock and its marketing	This study will look into livestock marketing to better understand its marketing chains, from points of production to national and international end markets. It will identify and explain changes and innovations that can improve how these market chains function, as well as address shortcomings and challenges. In particular, it will focus on marketing in normal conditions and when shocks (e.g. droughts) strike.
Exploring gender-inclusive approaches to marketing veterinary solutions	Research by the International Fund for Agricultural Development in 2010 showed how 'women play an important role in livestock management, processing and marketing, acting as care providers, feed gatherers, and birth attendants' and that 'women (and girls) are often responsible for small and/or young stock, including the diagnosis and treatment of livestock diseases'. This underlines the critical role women play in maintaining the health and resilience of pastoralist communities' most valuable assets, and indicates that they represent a market of informed consumers of veterinary health products, services and technologies. This research will provide insight on how to inclusively design, implement and evaluate interventions in pastoralist market systems that aim to improve the availability, affordability and quality of animal healthcare services, products and technologies.
Evolving pastoral livelihood strategies in the drylands	Amidst mounting volatility and uncertainty (e.g. climate change, conflict, etc.), some policy actors, particularly international donors, are once again questioning the long-term viability of pastoral livelihoods in the drylands. However, existing knowledge indicates that pastoralists use diverse approaches – inherent to their livelihood systems – to respond dynamically to shocks. This study will investigate pastoral livelihoods in Kenya and South Sudan to: <ul style="list-style-type: none"> ▪ identify and categorise the mechanisms, systems and processes pastoralists are employing in response to shifting hazards and shocks in distinct drylands contexts ▪ identify the factors that influence which approaches pastoralists prioritise when responding to shocks ▪ investigate which approaches appear to be the most effective in building resilience from the perspectives of local communities and actors.

3. Land and conflict

Key question: How can we better understand root causes, relationships and dynamics between land and conflict in pastoral areas, particularly at the local level, in order to influence narratives and interventions in pastoral areas?

The issue of land and conflict is highly complex. Land is an emotive and politicised subject enveloped in issues of identity, territory and power. Natural resource conflicts between and among farmers and pastoralists are often framed as the near-inevitable outcome of growing human pressure on limited resources. As human populations have increased and economies have developed, the demand for land has exploded, leading to migration, settlement and investment in areas previously considered marginal. Governments have failed to control land expansion, and land use planning continues to be a major gap in central government priorities. Climate change has exacerbated the situation, causing critical changes in, for example, land suitable for crop farming and/or land available for settlement due to risk of flooding.

In these complex contexts, land pressures in pastoral areas have rapidly increased, particularly in the higher productivity areas that have permanent water access. A lack of land tenure security and good governance (including non-inclusive decision-making processes and corruption) increases the likelihood of: pastoralists losing access to their land (particularly higher-productivity lands); rangelands being fragmented; and livestock corridors becoming blocked. Land and resource conflicts often have multiple root causes that go beyond the particular land or resource in question.

Narratives, particularly those of governments, often portray pastoralists as perpetrators of conflict rather than victims. Such narratives influence inappropriate interventions. Donors and humanitarian and development actors may not adequately understand the root causes and dynamism of such issues, and inadvertently contribute further to land tenure insecurity and the marginalisation of some groups, or find their interventions to be less

TABLE 3: SPARC PROJECTS UNDER THE 'LAND AND CONFLICT' PRIORITY AREA

Project title	Short description
Land use planning and conflict	A lack of, or poor, land use planning is a key root cause of conflict, yet it is still not prioritised by governments. Working with the Intergovernmental Authority on Development, the West African Economic and Monetary Union (UEMOA) and national governments, SPARC will improve the understanding of the importance of land use planning and how it can be improved in pastoral areas. This includes the development and application of more appropriate government and regional land use planning approaches and a cost-benefit framework to guide decision-making on large-scale land use planning.
Collective (communal) tenure	When it comes to conflict in pastoral areas, given the importance of tenure insecurity, there is a need to improve the understanding of related trends and dynamics, and how conflict can be reduced. SPARC is partnering with Prindex and the International Land Coalition to understand perceptions of tenure security, and to identify key tenure characteristics and indicators that can be used in global land measurements and indexes (considering two different levels: external to communities and within communities, where there is also scope to study social difference).
Pastoralist innovation	The 2022 SPARC review on land tenure insecurity and conflict highlighted that, in the absence of tenure security, some pastoralists are taking strategic and innovative action to secure access to land and resources, suggesting the need for different types of support for pastoralists to secure land. This trend will be explored further, and a framework will be developed for deeper case study analysis, potentially in a West African country.
Land and farmer-herder conflict, and women	While farmer-herder conflicts have received significant media coverage in recent years, the 2022 SPARC review on land tenure insecurity and conflict highlighted the lack of in-depth case studies on this topic. This has led to ill-advised interventions in conflicts, biased narratives and, in many cases, escalation of the conflicts themselves. SPARC research aims to improve the understanding of the root causes of these conflicts and provide guidance for better engagement and resolution. Women will receive particular attention due to gaps in understanding their specific needs in land and farmer-herder conflicts. This work will draw from other parts of SPARC's research portfolio.
Test cost-benefit analysis of land use change	This research will test a framework to guide governments on making decisions about whether or not to allow an investment in a pastoral area. It will explore how to integrate with other such frameworks, such as the United Nations' 'The Economics of Ecosystems and Biodiversity' (TEEB) initiative. Future value modelling may also be used to take into account climate change impacts on land use.

effective than hoped. A broader and more helpful framing might be one that sees natural resource conflicts as the outcome of an unequal and unfair exercise of power that marginalises some parties, but this framing is still not widely used or understood.

This policy area will delve into the relationships between land and conflict in pastoral areas, with a particular focus on local-level conflict, in order to understand their dynamics, causes and impacts. Research in this policy area will explore the relationships through different angles and lenses (see Table 3).

4. Innovation for resilience

As well as being intertwined with each of SPARC's other three priority areas, innovation constitutes a SPARC priority in its own right. SPARC has adopted a broad definition of 'innovation' as solutions, processes and services – including digital technologies – that support

building the resilience of pastoralists, farmers and agropastoralists in the context of recurrent and protracted crises. SPARC co-creates, curates and brokers evidence on what innovations are the most relevant, impactful and scalable, and what policies enable the success of these innovations by conducting scoping studies, reviewing specific innovations and communicating learning.

SPARC innovation research started with a [landscape study that was published](#) in late 2021, presenting findings from SPARC's review of 47 innovations specific to FCAS in the Horn of Africa and the Sahel. These innovations and others have been integrated into an [innovation dashboard](#) on the programme website that can be explored easily by funders, decision-makers and other stakeholders. The site has a crowd-sourcing function that enables anyone to suggest additional innovations for review and inclusion. Additionally, SPARC will continue to conduct targeted scoping studies to deepen the understanding of this priority area.

TABLE 4: SPARC PROJECTS UNDER THE 'INNOVATION FOR RESILIENCE' PRIORITY AREA

Project title	Short description
Social media in the drylands <i>Area: social technology, digital services</i>	This study explores social media in the drylands and its potential for meaningful campaigns in partnership with Wowzi, a <u>multi</u> -faceted marketing platform that connects more than 50,000 social media influencers in seven African countries with organisations interested in running marketing or information campaigns, and digital agency Nendo. The project aims to inform a wide range of stakeholders on the possibilities of leveraging social media in information campaigns in the drylands.
Digital livelihoods in the drylands <i>Area: digital services</i>	Building on the SPARC study <u>Resilient Generation</u> , this research project explores how Wowzi is (and could be) operating and impacting decent work and resilience in the drylands. The platform provides gig work opportunities for people in the drylands with social media accounts with at least 250 followers to participate in campaigns. The project, which is implemented in partnership with Wowzi and Jobtech Alliance, aims to inform and influence ongoing policy debates about how to create new work options for young people in the drylands.
Digital information services and digital financial services <i>Area: digital services</i>	SPARC has partnered with Mercy Corps' <u>Agrifin Accelerate</u> , funded by the Gates Foundation, to conduct a scoping study led by the <u>Dalberg Research Agriculture and Food Security team</u> on pastoralist, agropastoralist and farmer use of digital financial and digital information services (DIS) in Ethiopia, Kenya and Nigeria. The study builds on Agrifin's expertise in utilising digital technology and innovation to develop inclusive digital products and services that smallholder farmers need to increase their productivity, incomes and resilience. It also builds on SPARC's expertise in leveraging technology and supporting innovation to build resilience in the drylands.
Digital information services for rangeland management <i>Area: digital services</i>	SPARC initiated an evaluation of the mobile app Afriscout, developed by Global Communities, on its two models: 1.0 and 2.0 (implemented in Kenya and Ethiopia respectively). Model 1.0 provides Normalized Difference Vegetation Index data overlaid with pastoralist community-preferred grazing area maps to inform migration and grazing decisions. Model 2.0 provides this information plus recommendations and additional digital tools for regenerative grazing designed using the <u>Holistic Planned Grazing</u> approach. The recommended advice aims to increase the density and frequency of herd movement within rangelands by promoting the use of rotational grazing in 'virtual paddocks' that have the potential to improve rangeland quality.
Information services for pastoralist decision-making <i>Area: digital services</i>	SPARC has partnered with the Mercy Corps Adaptation Services for Action and Learning (ASAL Adapts) programme, funded by Cisco and Google.org, for a study on pastoralist decision-making to inform the development of DIS including climate information services (CIS) in Kenya. ASAL Adapts sees an urgent opportunity to bring pastoralist and county government stakeholders together to make decisions about natural resource management, supported by geographical analysis and climate services that can be informed by this joint study, which utilises SPARC expertise. This study will be a resource for DIS and CIS innovators in the drylands.
AgTech in the drylands <i>Area: digital services</i>	SPARC is collaborating with <u>Agrifin Accelerate</u> , <u>ISF Advisors</u> and <u>BriterBridges</u> to establish AgBase (formerly <u>Digital AgriHub</u>), an investment platform that includes databases of innovators, investors and enablers. SPARC is providing expertise and additional support through rapid, targeted scoping studies. With SPARC support, AgBase will integrate opportunities to invest in innovation in the drylands of East and West Africa alongside other agricultural markets in Africa, Asia and South America.
Evidence-based decision-making for resilience (or SHARED) <i>Area: governance</i>	This study reviewed the Stakeholder Approach to Risk-informed and Evidence-based Decision-making (SHARED), an innovative approach to supporting evidence-based decision-making with an online dashboard, which was developed by ICRAF, which is the World Agroforestry centre. The study highlighted the importance of four interconnected dimensions of decision-making that need to be navigated in such contexts: political will, evidence, stakeholder coordination and institutional capacity. Political will was determined to be a critical factor in the ability of decision-makers to make advances. Interestingly, the technological tools for collecting and displaying data in a central platform were useful for generating excitement among government stakeholders, but their functional use was overestimated. The cost threshold for technological tools to be used at scale was high and did not have realistic uses in the long term.
Participatory planning for resilience <i>Area: governance</i>	This study is evaluating the Ward Development Planning (WDP) participatory planning approach developed by Mercy Corps and implemented in northern Kenya. In addition, the study will use data from survey experiments to test hypotheses about the causal mechanisms that underpin the operation of WDP. Preliminary work has found that prioritising development action at the local level can avoid wasteful, redundant or maladaptive projects. This evidence will be used to help inform decision-making about scaling up WDP interventions in northern Kenya, as well as broader decisions about funding and implementing participatory planning in the dryland regions of the Horn of Africa and the Sahel.

SPARC innovation research has focused on several innovation areas: social technology; digital services in relation to livelihoods, markets and land; and innovation in governance in FCAS contexts. Going forward, SPARC will conduct further evaluative studies on cases of innovation aligned with the programme's other priority areas as well as continue work on digital innovation in FCAS contexts more broadly (see Table 4). As per SPARC's understanding of 'innovation', work will not be restricted to digital innovations, but it will also encompass process and institutional innovations that have demonstrable impacts in the drylands.

5. Cross-cutting research projects

There are three SPARC research projects underway that cut across all four policy priority areas. They are:

- **Risk management and resilience diversity in dryland livelihoods:** This research examines the impacts of the convergence of control and access to land, water and other natural resources, demographic and livelihood shifts, and shocks and stressors such as drought and flooding on conflict dynamics at sites in Nigeria; a new site might be considered in Niger in 2023.

Interviews and focus groups are being repeated on a yearly basis to understand how various challenges, including those related to land tenure insecurity, are impacting livelihoods in select pastoral/agropastoral communities and what actions, including mediation and formal legal proceedings, are being taken to manage challenges and risks.

- **The Drought Index-insurance for Resilience in the Sahel and Horn of Africa (DIRISHA):** DIRISHA is a co-funded SPARC programme led by the International Livestock Research Institute that has informed the design of the World Bank's 'De-risking and Value Enhancement of Rural Economies in the Horn of Africa (DRIVE)' project. SPARC is building on the first phase of the DIRISHA programme to assess and improve drought monitoring systems, and possibly index-based drought risk financing insurance products, through high frequency data collection in two sentinel sites in Ethiopia and Kenya. The aim is to better understand the chain of events that occur during drought shocks: from their early impacts to livestock productivity and the food security and welfare of pastoral households.

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