SPARC
Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises

ISSN 2977-9669
December 2025

SYNTHESIS REPORT

AID AT A CROSSROADS

Adapting to drylands realities

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How to cite: Humphrey, A., Kurtz, J., Ballo, M.A., and Nassef, M. (2025) *Aid at a crossroads: adapting to drylands realities*. Synthesis Report. London: SPARC Knowledge (https://doi.org/10.61755/SRUG8942).

About SPARC

Climate change, armed conflict, environmental fragility and weak governance, and the impact these have on natural resource-based livelihoods, are among the key drivers of both crisis and poverty for communities in some of the world's most vulnerable and conflict-affected countries.

Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises (SPARC) aims to generate evidence and address knowledge gaps to build the resilience of millions of pastoralists, agro-pastoralists and farmers in these communities in sub-Saharan Africa and the Middle East.

We strive to create impact by using research and evidence to develop knowledge that improves how the UK Foreign, Commonwealth & Development Office (FCDO), donors, non-governmental organisations, local and national governments, and civil society can empower these communities in the context of climate change.

Acknowledgements

This synthesis report is published through the Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises (SPARC) programme, which is supported by the United Kingdom's Foreign, Commonwealth & Development Office (FCDO).

The report draws on the rigorous research generated by a wide community of SPARC researchers. Many of the ideas shared in this report emerged through a series of facilitated workshops and collective learning sessions that brought colleagues together to explore the implications of SPARC's evidence for the future of aid in the drylands. We are deeply grateful to all SPARC researchers who contributed their time and perspectives. We especially acknowledge the facilitators—Peter Ballantyne, Peter Hailey, and Sophie Braus—whose skilful guidance created space for curiosity, collaboration, and joint reflection.

We also thank our reviewers, Simon Levine and Steve Wiggins (ODI) and Vaidehi Krishnan (Mercy Corps), whose thoughtful feedback strengthened the report considerably. Emma Gogerty, Emily Workman, and many others across the SPARC team provided invaluable support throughout. We are particularly grateful to Guy Jobbins, whose leadership of the synthesis process—and of the broader SPARC consortium—brought clarity and coherence to this work.

Finally, we extend our thanks to the SPARC communications team and Julie Grady Thomas, as well as to Green Ink for their copyediting, proofreading, and typesetting of the report.

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ACRONYMS

DRR	disaster risk reduction
ERR	Emergency Response Room
GDP	gross domestic product
MEL	monitoring, evaluation and learning
NGO	non-governmental organisation
SPARC	Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

This report explores the realities of aid delivery in fragile and conflict-affected drylands of Africa and the Middle East. As humanitarian needs grow and funding shrinks, there is an increasingly urgent need for aid actors to 'do differently with less'. The challenge is not simply to deliver more aid, but to fundamentally rethink how international assistance can achieve better results.

Increasingly, aid actors are recognising that drylands contexts are not marginal, but central to achieving long-term regional stability, food security and climate resilience. Yet most aid to drylands is still delivered as short-term humanitarian assistance rather than long-term development aid or support to climate adaptation; in other words, aid often takes the form of a series of emergency interventions that may save lives but which do little to address the underlying drivers of vulnerability and harm. This model of assistance does little to help drylands communities escape cycles of protracted and recurrent crisis.

"Aid at a crossroads" draws on six years of SPARC consortium research to offer practical recommendations for improving the impact of aid in fragile and conflict-affected drylands. The report argues that aid must evolve beyond rigid, technocratic models and towards approaches that are flexible, context-responsive and locally embedded.

This report is written first and foremost for implementers: those working in the drylands to design, deliver and adapt programmes amid conflict, climate shocks and chronic underinvestment. It targets policy-makers, funders and practitioners designing and delivering interventions in these regions.

The report identifies three transformative shifts for aid actors working in crisis-affected drylands:

New ways of engaging

This report argues that aid must engage with and strengthen the informal systems that drylands communities rely on – social networks, local markets, mutual aid groups and diaspora ties. SPARC research suggests that these systems are the most common and often effective sources of support during crises, but that they are often overlooked or undermined by external actors. This can inadvertently undermine crisis resilience and lead to missed opportunities for cost-effective interventions with broader reach and more systemic impact. The report concludes that aid that reinforces these networks, empowers local responders and leverages community-led crisis response models can offer greater value for money, and will have a greater impact over the long-term.

New ways of operating

Second, this report argues that aid operations should embrace flexibility and adaptive management approaches that are better-suited to volatile drylands contexts than rigid plans. Aid should be structured to enable programmes to revise targets, milestones and objectives, shift funding, and empower field teams to respond to changing circumstances. Working effectively in fragile drylands will also require aid actors to adopt new interpretations of risk, allowing them to partner with informal stakeholders more nimbly. Flexible funding arrangements, adaptive management and inclusive processes are more likely to deliver sustainable impact in complex and fragile environments.

Farmer amongst papaya trees in KilKile, Kenya.
Credit: Ezra Millstein, Mercy Corps

New ways of seeing

Third, this report argues that aid must embrace complexity and context. Drylands are shaped by climate shocks, conflict and diverse social and ecological systems. Pastoralists are well-adapted to the uncertainty of the drylands, but aid actors generally are not. Much aid in fragile drylands has been aimed at settling pastoralist populations. These have often deepened vulnerability by limiting mobility, which is a key source of resilience. Effective interventions require deep contextual understanding and a recalibration of success metrics to value long-term, relational change – such as social capital, trust and local ownership – over short-term outputs.

This report calls for a fundamental reorientation of aid in fragile drylands: working with, not around, the systems that communities already use to navigate crisis and uncertainty. By investing in informal systems, prioritising flexibility and embracing complexity, aid for drylands can become more relevant, effective and sustainable – even in the face of shrinking budgets and growing needs.

KEY MESSAGES

1. Recognise and engage with complexity

Drylands are among the world's most complex environments, shaped by uncertainty, volatility, and diverse social, ecological and economic systems. Yet aid actors have too often relied on linear models of change, standardised interventions and 'best buy' solutions that fail to account for local realities. This report urges a decisive move away from these assumptions.

Aid actors must invest in deeper contextual understanding, drawing on local knowledge, participatory research and co-production of evidence. This means engaging with the lived realities of drylands communities – mobility patterns, informal institutions and adaptive strategies – rather than imposing external blueprints. Iterative approaches to programming and scaling are essential: interventions should be designed to learn and adapt as they go, responding to shifting risks, opportunities and priorities.

Complexity is not a barrier to progress, but the terrain on which resilience is built. By embracing complexity, aid actors can unlock more relevant, inclusive and sustainable solutions, and avoid the pitfalls of oversimplification that have undermined past efforts.

2. Reframe how success is measured

Traditional aid metrics prioritise short-term, easily quantifiable outputs, such as the number of people reached, cash distributed or wells constructed. While these indicators are important, they often miss the deeper, relational changes that underpin long-term resilience in the drylands.

This report calls for a recalibration of success metrics to capture long-term, relational change. This includes social capital, trust, collective action and local ownership – outcomes that may be slow to emerge and hard to measure but are vital for sustainable impact. Donors and implementers should develop accountability frameworks that incentivise the prioritisation of intangible, hard-to-quantify outcomes, and allow time for results to 'ripen'.

This shift also requires humility and patience: meaningful change in the drylands is often incremental, relational and resistant to linear cause-and-effect logic. Aid actors must be willing to value progress that is invisible to conventional logframes, and to communicate the importance of these outcomes to funders and stakeholders.

3. Operate flexibly

Uncertainty is a defining feature of the drylands, with recurrent shocks – droughts, floods, conflict, displacement – compounding chronic stresses. Yet aid systems are often built with an assumption of stability, relying on rigid procedures, centralised decision-making and risk-averse mandates. This rigidity undermines the effectiveness of interventions and limits the ability to respond to rapidly changing needs.

This report advocates for flexibility as a core operational principle. Donors and implementers must enable adaptive management, allowing programmes to revise plans, shift funding and empower front-line staff to make context-driven decisions. Flexible funding arrangements – such as pooled funds, crisis modifiers and multi-year grants – are essential for rapid response and adaptation.

Simplifying reporting requirements and reducing bureaucratic barriers can free up time and resources for learning and innovation. Field teams, who are closest to affected communities, should be trusted to adapt in real time, drawing on their local knowledge and relationships. Inclusive processes that listen to all voices – men and women, rich and poor, resident and displaced – are critical for tailoring interventions to diverse needs and aspirations.

Flexible monitoring, evaluation and learning systems should focus on outcomes rather than rigid activity checklists, enabling real-time course corrections and accountability for what matters most to communities. By prioritising flexibility, aid actors can avoid the delays, mismatches and missed opportunities that have hampered impact in volatile environments.

4. Invest in informal social systems

Informal systems – mutual aid groups, local traders, community networks and diaspora ties – are the backbone of resilience in the drylands. These networks operate on norms of trust, cooperation and social solidarity, and are often the first and most reliable sources of support during crises. However, aid interventions have typically bypassed or undermined these systems, defaulting to direct assistance and formal mechanisms.

This report urges aid actors to resource and reinforce the networks and institutions that communities already use. This includes direct financial and technical support for locally led crisis response initiatives, flexible grants for market actors and engagement with diaspora networks. Survivor- and community-led crisis response models, which shift control to local actors and provide flexible, small-scale funding, have demonstrated faster, more effective and more dignified responses.

Leveraging informal systems can achieve wider impact, improved sustainability and strengthened local capacity and ownership. It can also help to reach communities that are inaccessible to formal aid actors due to security, funding or operational constraints. By deferring to communities to allocate resources on their own terms, interventions are more likely to reflect local priorities and strengthen local structures for future resilience.

Aid actors must also recognise and address the risks and barriers associated with informal systems, including power dynamics, gender norms and social hierarchies. Mechanisms to identify and mitigate exclusion are essential for ensuring that investments in informal systems benefit all members of the community.

INTRODUCTION

The drylands of East and West Africa and the Middle East hold the key to sustainable development and long-term prosperity for communities facing some of the world's most complex challenges. These arid and semi-arid regions are home to vital grassland ecosystems and vibrant agricultural and livestock production and trade, which are a source of food, income, social networks and identity for more than half a billion people. Drylands livelihoods contribute substantially to national economies and serve as vital engines of local and regional trade.

Yet despite their importance, the drylands remain chronically underprioritised and misunderstood by many development and humanitarian actors. Often perceived as marginal, desolate or too risky, they have been bypassed by long-term investments and excluded from critical climate finance streams – even though they sit on the front lines of accelerating climate shocks, conflict and persistent underdevelopment.

Life in the drylands is characterised by uncertainty and volatility. While drylands communities are remarkably resilient – having adapted over generations to variable climates – scarce resources and recurrent shocks, combined with a history of economic and political marginalisation, are eroding livelihoods and fuelling cycles of crisis. Unpredictable and limited rainfall invites protracted droughts, which are becoming increasingly frequent and severe as a function of climate change. These challenges are exacerbated by policies promoted by a web of stakeholders, often with competing interests and priorities, which serve to marginalise drylands communities and undermine their resilience – for example, through political and economic exclusion, the promotion of sedentarisation or the privatisation of rangelands. This in turn has contributed to tenure insecurity, weakened governance and competition over increasingly scarce resources. These pressures are driving conflict, fuelling displacement and further weakening already fragile local economies.

Aid actors have long struggled to find effective ways of working amid this complexity. Interventions are often shaped by divergent understandings of drylands challenges and goals, especially in relation to issues such as natural resource management, where customary and communal systems cross formal administrative and national boundaries. It is unsurprising then that responses have leaned heavily on humanitarian assistance – reactive and short-term in nature – while doing little to address the systemic drivers of vulnerability and fragility in the drylands. At times, international actors have ignored drylands altogether, deeming them unviable for development investment. At others, they have applied linear theories of change, introduced 'best buy' solutions without sufficient contextualisation or attempted to impose stability on inherently dynamic systems. These approaches have not only fallen short – they have, in some cases, undermined the very systems that communities rely on to manage risk.

However, this is beginning to change. Increasingly, development and humanitarian actors – as well as climate finance institutions – are recognising that drylands are not marginal, but central to achieving long-term regional stability, food security and climate resilience. Success in this respect carries high stakes. When interventions are poorly tailored or oversimplified, they can deepen existing vulnerabilities, disrupt local systems, and undermine peace and development efforts. But when drylands interventions consider their specific context and complexity, they can catalyse progress across multiple sectors, strengthening economies, improving well-being and reducing the risks of future crises.

Maize field, Lokokoi, Karamoja, Uganda.
Credit: Ezra Millstein, Mercy Corps

This report argues that aid in the drylands must evolve beyond rigid, technocratic models and towards ways of working that are flexible, context-responsive and locally embedded. We must recognise the complexity of drylands systems not as a barrier, but as the foundation for more inclusive, effective and durable change. Grounded in six years of research by the Supporting Pastoralism and Agriculture in Recurrent and Protracted Crisis Consortium (SPARC) across multiple drylands contexts, this report discusses practical ideas about how aid actors can strengthen the systems that people already use to navigate crisis and uncertainty, and invest in long-term resilience by working with, not around, that complexity. This means investing in the systems and approaches that communities have built themselves, and involving them directly in shaping solutions to intractable challenges. Pastoralists are experts at navigating uncertainty and shocks. We can learn from them, and seek to strengthen existing strategies and capacities, rather than starting from scratch.

Doing so is more urgent than ever. The cliché 'do more with less' has become a stark reality following recent cuts in international assistance. The effects will be acutely felt in politically and ecologically fragile contexts such as the drylands of East and West Africa and the Middle East, where climate and conflict-driven crises, and their impacts on lives and livelihoods, are increasing. Meanwhile, development resources to address these challenges are stagnating, and climate finance is not reaching the places where it is needed most. The disparity between humanitarian funding and needs is greater than ever before (Rieger et al., 2024).

This report is written first and foremost for implementers: those working in the drylands to design, deliver and adapt programmes amid conflict, climate shocks and chronic underinvestment. It should be acknowledged that many of the arguments presented here are not new. Calls to engage more meaningfully with informal systems, embrace flexibility and embed local knowledge have been made for years. But despite growing rhetorical consensus, investment in these priorities has lagged. One reason is that these shifts often run counter to the incentive structures that shape donor investments and policy priorities in the drylands.

Donors and policy-makers increasingly express interest in innovation, systems thinking and transitioning from short-term humanitarian response to longer-term resilience-building. Yet, in practice, they remain under pressure to demonstrate quick wins and measurable impacts in the short term, often using narrow and easily quantifiable indicators. This creates tension. Many of the most meaningful and durable changes in drylands contexts are slow, relational and hard to capture in a logframe, and may remain invisible to typical accountability frameworks. The incremental, systems-oriented approaches advocated in this report may not yield quick wins that are politically convenient to communicate. But they are far more likely to deliver sustainable impact in complex and fragile environments.

We do not claim to have resolved this tension, but we believe it must be acknowledged. The recommendations in this report are grounded in six years of research across drylands contexts. They are offered not as abstract ideals, but as practical starting points for doing differently with less – through more adaptive, locally embedded and context-responsive ways of working. For this agenda to gain traction, implementers will need to keep making the case, and donors will need to be willing to shift how success is defined and measured.

Aid actors face a choice: continue with business as usual and risk diminishing returns, or embrace a different way of working that is more context-driven, locally grounded and systems-aware. The rapid and large-scale withdrawal of aid resources presents not only a challenge, but an opportunity – and necessity – to do 'differently with less'. SPARC research suggests key changes to how we work in crisis-affected drylands contexts that, pound for pound, can enable greater impact, efficiency and sustainability – especially amid shrinking budgets and growing needs. Specifically, this requires aid actors to adopt:

- **new ways of engaging** which strengthen or, at a minimum, do not undermine the systems on which people rely during crises
- **new ways of operating** which are flexible and support both pastoralists and aid actors to adapt and navigate uncertainty
- **new ways of seeing** which better account for the complexity and dynamism of drylands contexts.

This report outlines each of these shifts in turn and highlights the lessons and opportunities for enabling more adaptive, inclusive and effective aid in crisis-affected drylands.

1. NEW WAYS OF ENGAGING: INVESTING IN CAPACITIES TO NAVIGATE SHOCKS AND UNCERTAINTY

Six years of SPARC research highlights the critical role that informal systems play in enabling people in the drylands to navigate shocks and uncertainty. Considering global funding contractions in the aid sector, drylands communities' reliance on local systems is only likely to increase, as the gap between aid funding and needs grows. By investing time and resources to strengthen systems as a first priority for crisis response, aid actors are far more likely to achieve impacts on a larger scale more efficiently, and to better equip people to navigate future shocks while doing so.

Numerous SPARC studies find that these systems are the preferred and most common sources of support for people in the drylands. In the face of floods, droughts, conflict and economic shocks, people rely on them to access essential goods, services and information, often more than they rely on humanitarian assistance (Wiggins et al., 2023; Humphrey et al., 2021; Derbyshire et al., 2024). These informal systems may include markets, community networks and crisis response initiatives, which operate on norms of trust, cooperation and social solidarity. Mutual aid and reciprocal support networks, for example, enable access to essential information and services during crises, and facilitate the redistribution of assets to allow households and market actors to quickly cope and recover from shocks (Kim et al., 2020).

Despite their central role in enabling households to manage shocks and uncertainty, aid interventions during protracted crises are typically blind to local systems. Often as a function of urgency to ensure life-saving support reaches those in need most quickly, aid actors tend to default to the provision of direct assistance to households, such as cash, food, water and nutritional assistance (Wiggins et al., 2025). Direct support of this kind saves lives, and remains a critical part of emergency response in the drylands. But SPARC research suggests that most people get by on their own, relying on their own networks and support systems, as much or more than they rely on direct assistance (Wiggins et al., 2023; Humphrey et al., 2021; Derbyshire et al., 2024). Bypassing these systems presents various risks.

First, doing so can lead to a lack of perceived relevance and result in limited impact and uptake of interventions. One area where this occurs relates to the provision of livestock financing during protracted crises. Aid actors have invested considerable time and resources in connecting livestock traders with formal financing to help them weather shocks and strengthen livestock market systems in the drylands. But SPARC research shows that communities in the drylands generally prefer informal financing systems. For example, many livestock traders prioritise their own social networks and relationships of trust with larger business owners to access credit during crises, even when formal financing options are available. This is because informal arrangements are widely perceived to entail less risk to the borrower. One study found that livestock traders often eschewed formal credit in favour of informal options because:

. . . losing money borrowed from a larger trader might be embarrassing, but the lender has every incentive to keep the borrower in business if they ever want to see their money again . . . Banks, on the other hand . . . [may] foreclose and try to seize the borrower's assets, after which recovery may be impossible. Fearing this, traders prefer to stick to what they know: their cash flows, their savings and the strength of their social and business networks. (Banerjee et al., 2022)

Other SPARC research draws similar conclusions and argues that misalignment between formal aid delivery and informal systems is a root cause of aid's long-term shortcomings to meaningfully address vulnerability in the drylands. In a review of efforts to link humanitarian and development interventions for improved drought management in the Horn of Africa, for example, Mohamed et al. (2025) demonstrate that formal aid systems are designed around standardised, sequential processes which depend on predefined protocols and single sources of knowledge. Bureaucratic structures reinforce this rigidity through upward accountability, earmarked budgets and risk-averse decision-making. The authors find that this is in stark contrast to pastoralists' approaches to drought management, which are relational, adaptive and largely informal. Indeed, communities' own drought management practices – such as strategic mobility, reliance on reciprocal social safety nets, and informal resource-sharing – are fluid, and deeply embedded in social relationships. Because formal aid actors fail to engage with or embed these informal systems, their interventions are often late or misaligned or duplicate local systems. This creates a cycle where aid risks undermining local resilience strategies or crowding out local responses. It also means that efforts to 'link' short-term aid with long-term development become bureaucratic exercises that fail to produce real outcomes on the ground.

Further, bypassing local systems not only can result in missed opportunities but can also sometimes lead to inadvertent disruptions to drylands communities' strategies for managing shocks. SPARC research on aid-sharing in Ethiopia during the 2020–2022 drought emergency in the Horn of Africa found that non-governmental organisations (NGOs) were actively discouraging households from sharing direct assistance (Flintan et al., 2024). This was driven by the perception that aid-sharing undermined their targeting strategies. Yet the same study highlights that resource-sharing within informal networks is a critical community-based strategy for drought management. This presents a clear example of how formal aid incentives and structures can inadvertently undermine informal systems and local resilience capacities. Other research, beyond SPARC, found similar dynamics. In South Sudan and Yemen, for example, targeting of cash and food aid disrupted the delicate social norms underpinning mutual aid networks. When targeting criteria were opaque or locally disputed, households receiving aid were sometimes excluded from reciprocal support systems, perceived as having received more than their 'fair share' (Kim et al., 2022a).

The [cash] programme has changed social connections between [recipients and non-recipients]. [Non-recipients] do not help the person who is benefiting, because they think that the recipients are better off than those who are not benefiting. Some of my relatives are not as friendly as before, because they wonder why I was chosen and not them. They think I don't need their help, and they won't help me anymore.
Female cash assistance recipient in Panyijar County, South Sudan (Humphrey et al., 2019)

These examples demonstrate that while direct assistance plays a vital role in helping households cope with shocks, the incentives and operational approaches of aid actors can unintentionally erode local agency and the very informal systems that sustain long-term resilience.

Just as ignoring local systems presents risks, embracing them presents opportunities – for wider impact, improved sustainability and efficiency, and strengthened local capacity and ownership. This is not a new argument, nor one that has gone entirely unheeded. However, to date, most attention has gone towards integrating humanitarian response with *formal* systems. For example, there is a growing effort to link humanitarian assistance to national social protection systems as a means of rapidly scaling up emergency assistance in response to droughts and other protracted crises in the drylands (SPIAC-B, 2023). Similarly, the Ethiopian government's Disaster Risk Financing Strategy (2023–2030) emphasises the importance of prearranged financing instruments, such as the Public Safety Net Programme, to enhance the country's disaster response capacity as a means of reducing reliance on humanitarian aid by strengthening national systems for early action and resilience-building (Ethiopian Disaster Risk Management Commission, 2022). Donors continue to push for greater integration of humanitarian response and social protection systems, with the European Commission's Directorate-General for European Civil Protection and Humanitarian Aid Operations releasing new guidance for integrating social safety nets into emergency response (DG ECHO, 2025), and the World Bank's establishment of the Sahel Adaptive Social Protection Program (SASPP), a multi-donor trust fund to promote the 'integration of social protection interventions with

BOX 1. WHAT DOES IT MEAN TO LEVERAGE AND STRENGTHEN INFORMAL SYSTEMS IN PRACTICE?

Leveraging informal systems in practice requires moving beyond rhetoric to meaningfully invest in the networks, norms and institutions that communities in the drylands already rely on to manage risk and respond to crises. While SPARC did not evaluate specific programmatic approaches for doing so, its research points to several promising strategies that aid actors can consider when seeking to strengthen and work through these systems:

- **directly resourcing local response initiatives**, by providing financial and technical assistance to informal, locally-led crisis response initiatives – for example, through group cash transfers, enabling community-led crisis response at scale, especially in areas that formal actors cannot reach
- **empowering local market actors**, such as local vendors and livestock traders, with flexible cash grants of credit guarantees, to support their role as first responders and informal lenders in crises
- **reinforcing social capital and inclusion**, by supporting activities that promote trust and collective action, especially among marginalised groups who may be excluded from mutual aid networks
- **engaging diaspora and translocal networks** as vital connectors between communities, remittance flows and formal aid actors; tools such as the International Organization for Migration's iDiaspora platform, for example, offer structured models for this type of engagement (International Organization for Migration, 2023)
- **investing in proven models** which shift control to local actors. One well-documented approach is survivor- and community-led crisis response, which empowers crisis-affected communities to lead their own response and recovery efforts, prioritising local knowledge, agency and solutions. Instead of top-down aid delivery, it provides flexible, small-scale funding to local groups, enabling rapid, context-specific actions. This model fosters faster, more effective and dignified responses while strengthening local resilience and reducing dependency on external actors (Corbett et al., 2021).

disaster risk management and climate change adaptation measures to better anticipate and respond to shocks' (Sahel Adaptive Social Protection Program, 2025).

However, aid actors have made far less headway with respect to strengthening the informal systems that are at the heart of how communities in the drylands navigate crises. Progress in this respect is especially urgent, as SPARC research shows that informal systems are both the most common and preferred sources of support for pastoralists during crises.

Leveraging informal systems is a promising way to achieve wider impact, and to quickly deliver aid to those in greatest need. Doing so may relieve aid actors of resource-consuming targeting and verification activities, by deferring instead to local agency and contextualised understandings of vulnerability (Corbett et al., 2021). Further, informal systems are especially critical sources of support to communities that are inaccessible to formal aid actors due to security, funding or other operational constraints. Working through these informal systems is a way of bypassing access impediments that may currently prevent the delivery of formal assistance to those in greatest need.

The potential efficiency gains of this approach also relate to the long-recognised fact that local initiatives are consistently the first responders during crises, assisting affected households well before formal aid actors arrive on scene. Ahead of and during the 2020–2022 drought in the Greater Horn of Africa, for example, SPARC researchers tracked a panel of pastoralists and farmers to understand how people perceive the threat of climate shocks, and what they were doing differently as a result. The study found that in some communities, informal structures such as drought committees and savings groups were 'integral to coordinating and facilitating anticipatory action at the community level', well before any formal assistance was delivered. Further, the study found that 'collective action was prominent among farming communities along the river who were trying to address flood risk, [while] pastoralists used their social networks – for instance, to inform and support seasonal migration' (Weingärtner et al., 2022). Other research beyond SPARC similarly found that informal systems were the first to offer support to drought-affected pastoralists. These responses 'took the form of either relief itself or resource mobilization by organizing for contributions [from] family members of affected households, local leaders, Islamic leaders, community-based DRR [disaster risk reduction] committees, the business community, and diaspora networks' (Centre for Humanitarian Change, 2022).

Yet another benefit of working through informal systems relates to localisation and community empowerment. By deferring to communities to allocate resources on their own terms, interventions are more likely to reflect local priorities. They also have the potential to strengthen local structures, informal institutions and trust, such that communities are not only better able to weather current shocks but are also more prepared for future ones.

1.1 What is stopping us, and what opportunities are there to overcome these barriers?

Strengthening informal systems will require shifts in how humanitarian actors understand their own mandates when responding to crises in the drylands. Research points towards a variety of obstacles that must be addressed along the way, as well as clear opportunities for doing so. The rest of this section describes steps that aid actors can prioritise to more effectively leverage and strengthen informal systems through crisis response.

BOX 2. THREE LESSONS FROM AID ACTORS' EFFORTS TO WORK THROUGH EMERGENCY RESPONSE ROOMS (ERRS) IN SUDAN

1. In Sudan, mutual aid groups have played a front-line role in getting food and essential items to crisis-affected communities. But many of these groups were active long before the current crisis and have a long history of providing broader support such as psychosocial care, protection and local advocacy. With greater resourcing, these initiatives could contribute to longer-term recovery and resilience. This holds true across the drylands, where informal systems – such as community kitchens or pastoralist networks – are not only crisis responders but also key to bridging the humanitarian–development divide on local terms.

2. In Sudan, ERR groups report that strict reporting and narrow funding streams slow them down and pull focus from life-saving work (Olson et al., 2024). If we want to work with informal actors, we need to adapt our systems to theirs – not the other way around. That means streamlining reporting, avoiding parallel systems and giving partners the flexibility to respond based on need – not sectoral silos. We have seen in other places, such as Syria, that more flexible approaches lead to faster, more effective responses (Beloe et al., 2016). At its core, this is about shifting from control to trust. Fundamentally, leveraging informal systems requires trust and a willingness to relinquish control.

3. ERRs and other local groups take significant risks when delivering aid, whether navigating front lines or distributing assistance where international actors cannot reach. Visibility through international NGO partnerships can increase those risks – exposing local actors to threats, extortion or access blockages (Eltahir and Abdelaziz, 2024). There are also social risks when local groups are asked to implement externally driven targeting criteria that clash with local norms. This can damage their standing and disrupt informal systems that communities rely on (Kim et al., 2022b). Practitioners need to think ahead: assess risks before engaging, build in context-sensitive targeting and provide direct support – such as legal advice or safety protocols – to local partners on the front lines.

1.1.1 Adapting operational models

The first challenge for aid actors entails adapting operational models to ensure they serve to empower and strengthen informal systems in ways that allow them to work to their full potential. We can look to emerging efforts to do so for lessons and opportunities for improvement.

The provision of group cash transfers to informal, volunteer-led initiatives in Sudan is an especially valuable source for evidence-based reflection and learning. During the humanitarian crisis in Sudan, informal groups, including Emergency Response Rooms (ERRs) and other locally led mutual aid initiatives, have provided life-saving support to the most vulnerable, including nutrition, evacuation, protection, and psychosocial and sexual and reproductive health services (Manell, 2024). This included an estimated 1,400 community kitchens which served as the primary food source for households, including in IPC Phase 4 and 5 areas – though these groups have been severely affected by the elimination of United States Agency for International Development (USAID) funding, with as many as 900 having suspended operations as a result (ACAPS, 2025). These informal initiatives have provided continuous support to communities during the war. Their work has been especially critical in a crisis where aid actors have faced extreme access restrictions, reaching only 16% of those in need in 2023 (Harvey et al., 2023).

Woman taking goat to market in Degehabur, Ethiopia.
Credit: Ezra Millstein, Mercy Corps

International aid actors have therefore embraced ERRs as vehicles for the delivery of cost- and time-efficient, agile and needs-based assistance in Sudan, offering financing, typically in the form of unrestricted cash grants.

1.1.2 Recalibrating success metrics and incentive systems

Informal systems in the drylands operate largely based on trust, solidarity, social capital and local norms related to equity, fairness and reciprocity. However, these and other social capacities are rarely considered, let alone included as outcome objectives in interventions during protracted crises. Instead, these tend to focus on short-term consumption-related objectives, which may be measured through changes in household food security, expenditure patterns or reliance on specific coping strategies, without considering the informal, social aspects of how people in the drylands manage shocks and uncertainty.

What are the consequences of this mismatch in practice? In some cases, they are minimal. Humanitarian interventions in the drylands may in fact inadvertently strengthen informal systems, as a fortuitous if unintended outcome. For example, amid severe resource scarcity, aid can be a critical source of social capital for some households, the sharing of which helps to bolster reciprocal support systems during crises (Kim et al., 2020; Flintan et al., 2024). However, this is not always the case. As discussed above, cash and in-kind assistance can undermine informal systems by causing social tension and mistrust, especially when targeting criteria are opaque or disputed.

Addressing the mismatch between typical humanitarian objectives and the informal strategies that people in the drylands use for managing crises cuts to the heart of what it will take for aid actors to truly leverage informal systems. Doing so will require donors to

embrace new metrics of success and accountability frameworks, which incentivise the prioritisation of intangible, hard-to-quantify outcomes and which may take time to 'ripen' into measurable results at the household level. Interventions which seek to strengthen informal systems by building social capital and trust and expanding mutual aid systems – for example, by engaging diaspora networks during crises – are likely to help drylands communities adapt to shocks and manage uncertainty on their own terms, even if they do not result in immediately observable changes in the indicators that most humanitarian programmes currently use to measure success. At the same time, it must be acknowledged that informal systems may differentially benefit or exclude certain community members. Power dynamics, gender norms and social hierarchies can shape who benefits and who is excluded. Any efforts to engage with informal systems must therefore include mechanisms to identify and mitigate potential barriers to participation, especially for marginalised groups such as women, youth and displaced persons.

Further, informal systems can and should not entirely replace the role that traditional humanitarian response programming plays in delivering direct support to crisis-affected communities. This kind of aid remains critical and saves lives during acute crises. However, aid actors would be well served to expand their understanding of the impact of direct assistance, to better account for the primacy of informal systems in the drylands. As a starting point, this means embracing the fact that households often use direct assistance to better avail themselves of access to, and support from, informal systems in the longer term. For example, food and cash beneficiaries often proactively share portions of their assistance with others in their communities in accordance with local norms, and with the explicit intention of securing reciprocal support in future times of need. Sharing of this kind may come at the expense of beneficiary households' consumption in the immediate term and may therefore be interpreted as failure to achieve the intended impact. But households' proactive decisions to share aid often contribute to their longer-term well-being and may serve to strengthen the informal systems and institutions that underpin drylands resilience (Flintan et al., 2024). A simple measure that would go a long way to more holistically account for programme impacts on informal systems would be to include questions about resource-sharing decisions and motivations in post-distribution monitoring surveys or other assessments.

2. NEW WAYS OF OPERATING: PRIORITISING FLEXIBILITY

The previous chapter emphasised the importance of engaging directly with the informal systems that drylands communities rely on to navigate uncertainty. However, successfully supporting these systems requires more than simply changing how aid is delivered – it demands fundamental shifts in how aid actors operate. This chapter argues that flexibility must become a core operational principle guiding interventions in the drylands.

Uncertainty is a defining condition of the drylands. Conflict, climate shocks, displacement and political volatility layer unpredictability on top of recurrent stresses such as drought, price fluctuations and poverty. These shocks disrupt already complex social and ecological systems, often with little warning and widespread consequences.

Yet people in the drylands are not passive in the face of this uncertainty. Livelihood systems in these regions, especially pastoralism, have long been shaped by an ability to move, reorganise, and respond dynamically to unpredictability. As Banerjee et al. (2022) described in the context of livestock markets, for example, actors across the chain, from herders and traders to transporters, have adapted to fluctuating conditions through informal, decentralised and highly responsive practices. This ability to adjust rapidly is the foundation of drylands resilience.

Aid systems, by contrast, are not built for flexibility. Especially when crises intersect with conflict, development and humanitarian programmes tend to rely on rigid procedures, narrow mandates and centralised decision-making processes. Risk aversion similarly can prevent timely action, particularly in areas deemed too insecure or unstable. The results are clear: underinvestment in fragile and conflict-affected states (Cao et al., 2021), delayed or inappropriate responses, and missed opportunities to support locally driven adaptation. A SPARC case study of responses in central Mali following the 2012 coup, for example, found that donor flexibility and operational adaptability was a key determinant of how well projects were able to pivot to address evolving community needs (Wiggins et al., 2021).

SPARC research highlights the need to shift aid operations to align more closely with the adaptive, decentralised and informal systems that already support drylands resilience. This requires moving beyond reactive adaptation and instead building flexibility into the design of systems, funding models, management practices and learning processes. Doing so will allow us to respond more effectively to rapidly shifting conditions, support locally led solutions, and avoid the delays, mismatches and missed opportunities that often undermine impact in volatile environments (Wiggins et al., 2021). SPARC research found that interventions in South Sudan after flooding, for example, met pastoralists' immediate needs but were too rigid to reflect the complex long-term aspirations of individual households and therefore risked inadvertently undermining their well-being by derailing hopes and plans for the future (Humphrey et al., 2023). Support that empowers pastoralists and agro-pastoralists to respond flexibly, according to their circumstances, will help them not only cope with shocks but also position themselves for long-term recovery and adaptation.

Of course, not every intervention in the drylands demands high levels of flexibility. Routine services such as vaccination campaigns, infrastructure repairs or delivery of supplies along well-established routes can often be planned and executed with relative predictability.

But for interventions that engage with livelihoods and local risk management systems, flexibility is not optional. It is essential to effectiveness. The rest of this section draws on SPARC evidence to highlight key obstacles and opportunities for aid actors to prioritise flexibility in the drylands.

2.1 Overcoming technocratic rigidity

A growing obstacle to flexible and adaptive aid in the drylands stems from the unintended rigidity of technically driven approaches. New tools and ways of working have brought important improvements to aid programming in the drylands, including increased preparedness and, in some cases, more efficient responses to emerging crises. For example, acknowledging that local systems contain elements of resilience provides a framework for programmes to identify the root causes of vulnerability and integrate livelihood-strengthening with disaster preparedness, climate adaptation and improved governance (Pasteur, 2011). Under certain conditions, forecast-based action and the use of trigger-based financing supports governments, aid actors and people at risk to act in advance of a predicted crisis, to reduce loss and damage and minimise the cost of the post-event response.

However, SPARC research indicates that, paradoxically, the very tools intended to improve planning and effectiveness can entrench systems that are ill-suited to the complexity and unpredictability of the drylands. Labels such as resilience, climate adaptation and early recovery, offer convenient, simplified narratives that may lead to superficial analyses and be used to justify standard cookie cutter interventions that risk being treated as blueprints, transferable across entire regions (Levine, 2022). Whereas in practice:

> *due to the complexity of the effects of climate change, as well as under-investment and recurrent instability in FCAS [fragile and conflict-affected States], it is these very environments that especially resist the simple adoption of external 'best practices', and scientific knowledge. (Hakiman and Stull-Lane, 2022)*

The drive for technical precision and efficiency can invite centralisation and standardisation of decision-making, to the exclusion of local stakeholders whose knowledge is recognised as key to effective programming in the drylands (Honig, 2020). As a result, flexibility is often undermined. This rigidity is especially problematic in the drylands, where volatility is constant and communities rely on informal, decentralised systems to navigate uncertainty. Aid programmes designed for stability, guided by fixed logframes, sectoral silos and procedural compliance, may struggle to remain relevant or timely in such settings.

2.2 How can aid actors ensure that flexibility is not lost amid the growing push for efficiency and technical innovation in the drylands?

To overcome technocratic rigidity and build flexibility into aid operations, both donors and implementers must adjust their ways of working. A key step in this process is to recognise that different types of actors bring different institutional capacities, risk appetites and management cultures to bear. International NGOs, donors and national ministries do not operate in the same way, and expecting them to adopt identical models of flexibility or adaptive practice may be unrealistic. The key is to understand these differences and identify opportunities for complementarity, rather than uniformity.

Donors can play a key role by providing flexible funding arrangements that allow rapid reallocation of resources in response to evolving needs. Mechanisms such as pooled funds and crisis-modifier financing have demonstrated their potential in enabling aid programmes

to pivot effectively when contexts change. Specific windows dedicated to high-risk areas can improve access to funds, but they need fit-for-purpose criteria and processes that lock in operational flexibility, create space for localised projects with smaller budgets, foster operational partnerships between actors with complementary mandates and areas of expertise from across sectors (humanitarian, development, peacekeeping, public), and support co-creation processes to anticipate operational risks at the design stage (Cao et al., 2021; 2022). Donors can also lead in strengthening coordination between national and international actors, by enabling joint analyses and the flexibility to align programmes for a more effective response (Mohamed et al., 2022).

Yet these mechanisms only work when donors also invest in building trust with implementing partners, empowering field staff to make context-driven decisions without being hampered by inflexible contractual requirements. Even within formal, rules-bound institutions, a degree of flexibility often emerges in practice, particularly at the field level. Staff working closest to affected communities frequently adapt to unfolding events, make judgement calls and find creative workarounds to maintain relevance and responsiveness. These informal adaptations may not be captured in official reporting systems, but they are often critical to programme success. Recognising and enabling this kind of front-line flexibility, rather than treating it as deviation, can enhance impact in volatile settings such as the drylands.

Through a series of case studies, SPARC researchers considered the extent to which programmes were able to adapt following the 2012 coup in Mali. Of the programmes considered, the study found that *Harande*, a four-year (2015–2020) food security, nutrition and economic development initiative implemented by a consortium of national and international NGOs, led by CARE, demonstrated particular flexibility in its ability to adapt approaches to contextual changes and respond to emergency needs. The experience and expertise of the consortium in both the development and humanitarian sectors and CARE's long-standing relationship with the donor, the USAID Office for Food for Peace, are likely to have been important factors in USAID's approval of the consortium's request in 2016 to adapt the project aims and approach to the evolving context (Wiggins et al., 2021).

Implementing organisations also have a critical role to play in embracing adaptive management approaches that prioritise learning-by-doing and iterative improvements rather than rigid adherence to predefined plans. This is especially important in conflict-affected drylands where for successful outcomes, organisational practice and procedures must embrace flexibility, sit with discomfort (Cao et al., 2022) and truly build on what is there (Levine and Paine, 2024).

2.3 Why is flexible implementation so important in the drylands?

First, because these contexts often lack sufficient evidence and data to guide action, and implementing organisations typically have little time or resources to conduct in-depth studies before responding. This challenge was underscored by a SPARC review of livelihoods and markets in protracted crises, which found:

> *If the response needs to proceed – at least in the short run – with little evidence, the case for adaptive management of interventions becomes even stronger. (Wiggins et al., 2021)*

In such situations, aid programmes must be designed to learn and adjust as they go, iteratively refining interventions based on real-time insights, rather than waiting for comprehensive studies that may arrive too late to be useful. Flexible implementation enables programmes to remain responsive and relevant, even in the face of rapid change and uncertainty.

Second, because cause–effect chains are often poorly understood in drylands contexts, it can be difficult to determine what actions are needed, or indeed, whether any action is needed at all. SPARC research on livestock markets in Kenya, Mali and Somalia found the critical factor to successful trading in a highly uncertain context to be social capital – access to a network of trusted personal contacts on the ground. It was not access to finance, as can so often be assumed (Banerjee et al., 2022). The study highlights the value of starting with small, context-specific improvements in partnership with value chain actors, such as building low-cost infrastructure or strengthening local networks. By prioritising incremental changes and iterative learning over large-scale interventions, aid actors can better support communities navigating uncertainty and foster resilience through local systems that are already in place.

For example, a SPARC retrospective learning study of projects to support pastoralists in Kenya concluded that rather than seeking a transformational change in behaviour, it was more realistic to start from what people were already doing (e.g. informal trade or credit networks) and work slowly towards a more organic transformation (Agol, 2025). Findings from a similar retrospective study of an NGO project in eastern Chad highlight the importance of what evolutionary theory calls the 'adjacent possible' or the set of possibilities that are within reach from a given starting point. In development terms, this implies that transformation can happen only step by step, and only changes that are close to where societies (or communities) already are may be feasible. Sudden leaps to something very different are more likely to be impossible, particularly if several technical, social or psychological changes are required at the same time. Instead of trying to introduce an innovation, they concluded it would be more effective to invest in understanding what similar functions already exist and in securing step-by-step, 'adjacent possible' changes that progressively move the community towards the desired outcomes (Benoudji, 2025).

SPARC research highlights resources and approaches that implementers can leverage to build both inclusiveness and flexibility into programme design. For example, the SHARED (Hakiman and Stull-Lane, 2023) and Ward Development Planning (Bedelian et al., 2023) frameworks offer guidance for implementing adaptive, locally derived solutions in the drylands. These frameworks position external actors as conveners rather than top-down implementers, bringing evidence and research into the process, while deferring to local knowledge and priorities. By embracing these approaches, implementers open up pathways to co-create solutions that are more relevant and accepted by the communities they serve, enhancing local ownership and increasing the likelihood of sustainable impact amid volatility.

Building both inclusiveness and flexibility into programme design can bring additional dividends in terms of gender and social inclusion. Inclusive processes must provide space to listen to the voices of all households (rich/poor, resident/displaced etc.) and all the people living in those households (men/women, young/old, persons with disabilities etc.). Flexibility in resource allocation is essential to address the very different short-term needs, priority livelihood strategies and long-term aspirations. SPARC research in Nigeria found it common for men and women in communities affected by conflict to diversify their livelihoods, but they did so in different ways. Some men, for example, had started farming cash crops (vegetables and cotton), while others were trading cereals or livestock or providing services such as casual labour, phone-charging or motorcycle taxis. Women were more likely to be earning money by trading milk products (yoghurt, ghee and cheese) when available but also by selling spices, sugar cane and other household goods or by raising goats and poultry (Opitz-Stapleton et al., 2022).

In South Sudan, pastoralist households affected by flooding had highly complex livelihood aspirations with variations both between and within households that were closely linked to a

complex set of intersecting factors, including wealth, age, gender, rurality and shock exposure. Differences within households were especially pronounced between genders, and livelihood strategies had unique implications for the labour, safety and well-being of men and women. These can only be identified and taken into consideration through inclusive and adaptable processes that centre pastoralist men and women in programme design and allow space to adjust as deeper understanding emerges, rather than locking in rigid assumptions too early (Humphrey et al., 2023).

Yet even the most promising frameworks are more effective when they are coupled with operational systems that remain open and responsive to uncertainty. In conflict-affected drylands, interventions that rely on rigid logical frameworks risk missing opportunities to adapt in real time as conditions change (Levine and Pain, 2024). By integrating iterative, evidence-driven approaches into programme design, aid actors can better navigate the complexities of the drylands and stay relevant and effective. Other SPARC research emphasises that in such environments, adaptive learning and responsive programming are not optional, but essential for building trust and achieving sustainable outcomes (Opitz-Stapleton et al., 2023).

Flexible monitoring, evaluation and learning (MEL) systems are particularly valuable in the drylands because they enable programmes to remain responsive to shifting realities. Rather than locking programmes into rigid activity checklists, flexible MEL processes focus on tangible outcomes – such as improved nutrition, better harvests or clean water – and provide space to adjust implementation strategies as contexts change. When activity plans are disrupted by conflict or climate shocks, programmes that pivot to prioritise outcomes over predetermined activity plans can still stay focused on what matters most to communities. By enabling real-time learning and course corrections, flexible MEL helps aid actors maintain both accountability and relevance, ensuring that interventions remain effective in the face of ongoing uncertainty. Ultimately, progress must be assessed over the medium term, and in ways that look beyond project timelines and short-term outputs, focusing instead on lasting outcomes that matter most to communities (Levine, 2022).

Equally important, fostering flexibility at the front lines offers aid actors the chance to harness the adaptability and insights of field teams who understand local dynamics best. It has long been known that when staff are equipped with supportive leadership and appropriate incentives, they are better positioned to make rapid, evidence-based decisions that reflect changing realities on the ground. Teams with adaptable skills and inquisitive mindsets – who know how to ask the right questions and truly listen to the answers – are often more effective at tailoring responses to local needs and building trust with communities (Beloe et al., 2016). Prioritising these qualities in recruitment, professional development and performance assessments can strengthen the overall responsiveness and relevance of aid programmes in the drylands.

Taken together, context-sensitive frameworks, adaptive MEL systems, real-time learning and empowered field teams offer aid actors the opportunity to move beyond technocratic rigidity and embrace the complexity and dynamism of the drylands. By doing so, they stand to achieve more relevant and sustainable outcomes, aligned with the adaptive systems and priorities of the communities they seek to support.

2.4 Supporting peoples' own paths through uncertainty

Just as technocratic rigidity can undermine adaptability in the drylands, aid interventions can falter when they misinterpret or inadvertently undermine the flexible strategies that local communities themselves rely on to navigate uncertainty. Communities in the drylands have long demonstrated remarkable adaptability – for example, by selling livestock, migrating and diversifying income sources – in response to shocks and stresses. These strategies, far from

being signs of collapse, are often expressions of resilience and flexibility that have evolved over generations (Humphrey et al., 2023).

Households and communities in the drylands often have livelihood objectives that go well beyond production and income. They place considerable value on social networks and relationships, which – as noted above – are critical elements of resilient livelihood systems (Banerjee et al., 2022). These social ties not only provide support in times of crisis but also enable people to remain flexible, sharing information and resources, diversifying income streams and collectively navigating uncertainty. Recognising these relational dimensions, their limitations and the factors that sustain them allows aid actors to support the inherent flexibility of local systems, rather than inadvertently undermining it (Elsamahi et al., 2021).

However, aid actors sometimes misread these adaptive responses as failures of local systems or as evidence that livelihoods must be transformed. When this happens, investments risk reinforcing rigidity by prescribing fixed development pathways rather than supporting communities to continue adapting on their own terms. Recognising and investing in the flexibility that communities *already* demonstrate aligns closely with the overarching goal of fostering adaptive, responsive aid systems in the drylands.

SPARC research has shown that households and local communities in conflict-affected drylands largely get by through their own ability to cope (Levine and Wiggins, 2023). They are far from passive. There is evidence that they are constantly adapting and innovating. SPARC research in East Africa, for example, found that pastoralists have seized the opportunities of digital technologies. They track their livestock at a distance through the mobile phones of the herders they employ. Women pastoralists in remote rural towns receive mobile payments for their milk, from the buyers in the capital. Voice messages on social media, accessible regardless of literacy, are used to solicit advice from the wider community and exchange information relevant to livelihoods and well-being (SPARC Knowledge, 2024).

2.5 How can aid actors ensure that interventions in conflict-affected drylands reflect and strengthen the flexibility of pastoral and agro-pastoral livelihood systems?

The underlying objective of interventions during protracted crises should be to enable people to access a broader set of livelihood-related options, granting them the flexibility to make and act on informed decisions about livelihood investments on their own terms – the freedom to choose how best to use support to address the obstacles and options they face. This requires donors and aid actors to consider long-term horizons, even when responding to acute crises, with a view to helping people not only cope with shocks but also position themselves for long-term recovery and adaptation.

In the current funding climate, it is probably unrealistic to expect the type of long-term resourcing envisaged by Hakiman et al. (2023) in more stable dryland settings, to allow for institutionalisation of processes and system-level change. It may also be unrealistic to expect growth in investment in multi-year and multi-donor trust funds that integrate short-term humanitarian needs and long-term resilience-building (Mohamed et al., 2024).

However, aid actors should be able to do more to engage stakeholders meaningfully in research, analysis, decision-making and implementation as part of adaptive management. There is evidence that combining the analysis of technical information with local knowledge can lead to decisions that are not only technically sound but appropriate to the context and perceived as legitimate (see Hakiman et al., 2022). Empowering pastoralists to engage in local

Fass Ngom, Senegal. Women collect water for crops.
Credit: Ezra Millstein, Mercy Corps

planning, integrating local knowledge and community priorities into planning and public goods investments, has been shown to have potential to enhance local governance, reduce conflict and support community development that builds resilience to climate and other shocks (Bedelian et al., 2023).

Empowering people to make decisions on their own terms implies a shift in strategy for donors and implementers to focus on building up capacities to manage uncertainty, rather than trying to provide a route through uncertainty for households and communities affected by crises.

What might this look like in practice? It all depends on context, of course, but it could entail greater investment in urban livelihoods or in off-farm income-generating opportunities. It could involve the provision of unconditional cash transfers or the extension of government-run safety nets to new areas or to categories not previously considered vulnerable. Cash gives people the freedom to decide, and there is evidence supporting investments in cash programming as an enabler of flexibility (Wiggins et al., 2023).

In a SPARC policy brief outlining key considerations for food security investments in the drylands, Levine and Wiggins (2023) recommend that more effort be directed towards what allows local economies to function. This may require engaging more with the private sector, particularly people able to respond quickly to changes in context and market demand and supply (Mohamed et al., 2024) such as motorbike riders or mobile money agents. It certainly requires paying attention to social capital – finding ways to rebuild, strengthen and leverage trusted networks, or at the very least ensuring that interventions do not undermine them. Continued investment in drylands information systems (production, climate, markets) is also key, with a focus on ensuring information access, trust and uptake.

Empowering people to define the livelihood support they want means acknowledging that they may still need all the things they needed in peacetime: functional roads, access to land and other natural resources, support for locally led conflict management, investments in infrastructure, agricultural inputs and so on (Wiggins et al., 2023). As we strive to do differently with less, we must accept that public agencies, while imperfect, do some things well and have capacity in some areas but not in others, and that this varies with context and time. Donors and implementers should look for opportunities to build on the strengths of public agencies and be sufficiently flexible to recognise where this is needed.

3. NEW WAYS OF SEEING: EMBRACING COMPLEXITY AND CONTEXT

The preceding sections argued that making aid more effective in the drylands requires engaging with the systems and strategies that people already use to navigate crises, and adapting aid to be flexible and responsive to changing conditions. Yet these changes will fall short without an accompanying shift in how aid actors perceive and understand crisis-affected drylands. Aid actors' dominant assumptions and mindsets – about what resilience in the drylands entails, how change happens or which systems matter – are often misaligned with the lived realities of drylands communities. This final chapter explores why deeper contextual understanding and embracing complexity can unlock more relevant, locally grounded approaches to both humanitarian and development assistance.

3.1 What makes the drylands complex?

The dynamics around climate change epitomise the complexity of the drylands, and the challenges to how external actors and investments engage in these contexts.

Drylands are significantly affected by and sensitive to the increase in severe climate events – especially those that impact water security. Droughts have doubled in frequency in the last two decades in the Horn of Africa, and poor rains now occur every two to three years (Funk, 2021). Climate shocks are intertwined with conflict in these regions, with the effects of climate change often increasing conflict risks, and the resulting violence limiting climate adaptation investments and actions (Cao et al., 2021). These combined shocks are eroding gains in poverty reduction by disrupting livestock- and agriculture-based livelihoods and exacerbating humanitarian needs through displacement and insecurity.

Recent SPARC analysis estimated the direct impacts of climate change to inform what should be counted as climate-attributable loss and damage. It found that droughts and floods – just two forms of climate shocks – negatively impacted the livelihoods of nearly 150 million people, and contributed to 12,000 deaths in the Sahel and Horn of Africa between 2000 and 2022 (Nur and Pichon, 2024). For Somalia, the economic impacts likely attributable to climate change amounted to about 3.3% of the country's gross domestic product (GDP) between 2000 and 2021, including an estimated $2.84 billion in agriculture and livestock losses and damages (Nur et al., 2024).

Many development policies and programmes in the drylands have sought to settle agro-pastoralist populations to better provide services, protect natural resources and reduce conflict. Such models have often been applied without sufficient contextualisation to the institutions and strategies of drylands communities. The results have made pastoralists less resilient by limiting their mobility, undermining traditional land tenure arrangements and disrupting rangeland management practices (Flintan et al., 2021).

During acute crises, such as severe droughts, humanitarian response has predominantly taken the form of direct provision of food commodities and services (Wiggins et al., 2021). Historically, these approaches have missed opportunities to strengthen local market systems, including

livestock traders, that are critical lifelines for pastoralists during times of crisis (Mercy Corps, 2021). More recent programme models in Ethiopia and Nigeria have shown promise in using cash transfers to meet immediate needs in ways that strengthen livestock market systems, such as off-takers and animal health services, during crises such as COVID-19 and severe droughts (Mercy Corps, 2022; 2023). SPARC researchers have shown that this type of timely, market-based humanitarian response requires multi-year development investments to establish response plans and partnerships, paired with flexible funding mechanisms such as crisis modifiers (Mohamed et al., 2025). Despite their promise and clear need in fragile, drylands contexts, such proactive, risk-informed approaches are still underutilised (Risk-informed Early Action Partnership, 2024). Recent cuts to investments in resilience by major donors will make them even rarer.

Climate-specific investments and action have not fared much better in terms of relevance and effectiveness in the drylands. The dominant responses to climate change are a threat to the livestock-based livelihoods on which the majority of people in the drylands depend. The global push to limit animal production to reduce greenhouse gas emissions and protect environments is often context-blind when it comes to livestock practices such as pastoralism. Further, such policies fail to recognise that alternative uses of the arid rangelands, such as for agriculture, would produce more emissions (Dupar and Lovell, 2021; Mgalula et al., 2021). Yet research by SPARC partners has shown that extensive pastoralist systems, when well managed, can contribute to climate adaptation and mitigation (Jaquez et al., 2024). Maximising these benefits requires understanding key contextual factors – such as how the carbon and environmental footprints of livestock production vary across countries, seasons, animal species and breeds, and rangeland management practices (FAO, 2023). Few climate or development interventions invest sufficient time or resources in engaging with this level of complexity.

Insufficient understanding of fragile drylands regions not only results in less relevant and less effective investments in climate action, it translates into less funding for places that most need assistance to adapt to and recover from climate shocks.

> *This is no geographical accident: while violence, armed conflict, fragile institutions or insufficient state support all increase people's vulnerability to climate impacts, they also mean that climate funders and the international community often consider these places too 'risky' to invest in. (Cao, 2025)*

Aid actors have much to gain from better understanding and engaging with the complexity inherent in drylands contexts, including making optimal use of the resources they are investing. Doing so requires overcoming several key obstacles and seizing new opportunities presented by recent trends in international humanitarian and development assistance.

3.2 Investing in understanding the drylands

Part of the challenge manifests as a lack of sufficient understanding of agro-pastoral systems and societies. Mobility patterns, customary land tenure and traditional animal health practices can feel foreign even to 'national staff' who are from more agriculture-based regions. Yet, in practice, the issue is more often the incompatibility of common assumptions and approaches to development with the realities of the drylands. When the dominant mental models of development and humanitarian assistance are out of sync with new or changing realities, they can entrench poverty (World Bank, 2015).

Research from the Secure Livelihoods Research Consortium shed light on how this is often the case in conflict-affected, drylands contexts such as northern Uganda. Aid efforts to reduce violence and improve human welfare have had limited results in such places

'because practitioners adhere to a mental model that emphasises linearity, certainty, and causality' (Schomerus, 2023). For instance, they view the main solutions in drylands contexts as strengthening formal institutions to provide services, security and the foundations for economic development. As detailed above, this approach does not take into account the realities of pastoralist livelihoods and communities, and is often not fit for purpose for shifting conditions and uncertainty inherent in fragile drylands contexts.

A poignant example of this disconnect is how many aid efforts have approached the promotion of market-driven solutions in the Horn of Africa. Limited access to markets for pastoralists is a major barrier to maximising livestock resources (Makokha et al., 2022). In response, donors and governments have invested heavily in improving infrastructure, animal health, financial services and other aspects of livestock market systems in the drylands. In aggregate, such aid may have contributed to the overall improvements in nutrition, mortality and other outcomes observed in the drylands over the past two decades.

Yet the benefits of support for greater commercialisation – a fixture of many market-based programmes – have tended to go to larger herders and traders, thereby increasing inequality (Akilu and Catley, 2009). Attempts to channel more profits to primary livestock producers has, in some cases, broken down relationships with brokers and traders that serve critical functions in conflict- and climate-vulnerable contexts, such as helping pastoralists restock after crises (Adamu, n.d.). Further, success for major market infrastructure investments is measured in terms of 'structural transformation', such as percentages of the population employed in non-livestock or agricultural work (Foster and Lebrand, 2022). This is often in stark contrast to how pastoralist communities view development progress, as illustrated by this paraphrased quote from a male youth activist in the Karamoja region of Uganda:

> *For us, resilience can't exist without maintaining our identity. If we give up our pastoralist way of life [in exchange for farming or off-farm livelihoods], we may have more food at times. But if we lose our cultural practices, we can never say we are resilient. (Catley et al., 2021)*

Dominant approaches to economic development, which emphasise productivity, growth and formalisation, often fail to recognise that traditional pastoralist livelihood strategies foremost seek to spread risk and build trust-based relationships across groups (Semplici et al., 2024). The results can inadvertently undermine these very strategies, with real-world consequences such as exacerbating poverty and conflict in parts of Somalia and Sudan (Duffield and Stockton, 2023). A key finding by IFPRI researchers from 2012 still holds true when engaging in these contexts: 'in many ways pastoralist livestock markets work quite well . . . an important principle for interventions on the marketing side is to do no harm' to these sophisticated systems (Headey and Kennedy, 2012).

3.3 Shifting mindsets

Several potential solutions exist to help aid actors see and engage differently in complex, drylands contexts. Multiple primers and courses on understanding and working in the drylands are a good starting point and should be required for 'outsiders' (see Box 3 for recommended resources). These courses go beyond typical awareness- and skills-building workshops. Many of them include immersion in agro-pastoralist communities or other forms of experiential learning, which are key to making new and unfamiliar concepts stick (Burch et al., 2019).

Evidence also points to promising approaches to changing the paradigms of policy-makers and aid actors through co-production of knowledge and exposure to alternative narratives on pastoral livelihoods (Reid et al., 2021a). This can take the form of participatory scenario planning, such as the approaches analysed by SPARC research in northern Kenya (Bedelian et al., 2023).

BOX 3. VIRTUAL AND EXPERIENTIAL COURSES ON WORKING IN DRYLANDS CONTEXTS

- Pastoralism in Development – a learning journey: Free 15-hour Massive Open Online Course that provides an entry point for understanding pastoralism through a rich range of teaching and learning activities (International Institute for Environment and Development, 2025)
- Drylands summer school: An intensive course that explores pastoralist resilience to shocks and uncertainties in the drylands, and develops insights and skills to engage with pastoral contexts (Jameel Observatory, 2025)
- Transforming dryland forests and agrosilvopastoral systems: E-learning initiative that aims to build awareness and expertise in dryland management practices that provide sustainable benefit for both communities and the environment (FAO, 2025).

These types of multi-stakeholder platforms that bring together policy-makers, researchers and local leaders can also help integrate traditional and scientific knowledge, and contribute to 'shifts in their mental models of how rangelands and communities work, opening the door to new concepts and solutions' (Reid et al., 2021b). For instance, we are starting to build greater recognition among policy and aid actors that resilience within pastoralist systems is best understood in terms of networks and relationships, rather than as alternative livelihoods that may be less vulnerable to shocks (Scoones, 2024).

3.4 Complexity-informed approaches to learning and scaling

A common mistake is thinking we can sufficiently understand the dynamics of fragile drylands contexts to develop solutions that will produce predictable outcomes. Where high levels of unpredictability and insecurity exist, aid actors must shift away from their typical default modes of looking for best buys and replicable approaches (Snowden and Boone, 2007).

Aid actors routinely oversimplify the complexity inherent in fragile, drylands contexts. Some of this is due to time pressures to respond to humanitarian crises that demand immediate action. It also stems from decision-making approaches that are not fit for purpose for complex problems and situations. Specifically, 'expert diagnosis' is often relied on to identify potentially effective responses. However, when managing uncertainty and complexity, expertise itself can become a major impediment when not appropriately grounded or applied. For instance:

> *. . . problem diagnosis becomes infected by solutionism when it is carried out by people who are experts in applying solutions, rather than experts in understanding problems. This means that problems are identified and described in ways that are shaped by the presence of solutions-in-waiting. (Levine and Pain, 2024)*

Importantly, a context- and complexity-aware approach does not mean we can ignore what is already known, what has been tried or what has worked in the past or in similar contexts. The drylands are littered with development innovations and pilots, many with limited reach and longevity (Makokha et al., 2022). The magnitude of the challenges faced and the populations in need in fragile drylands environments demand approaches to climate resilience development that can be scaled with and through local actors and systems. The decades of scholarship on drylands systems, and the growing evidence base on effective solutions in them, are essential starting points. However, scaling what works in drylands contexts is rarely a matter of replicating technical fixes or investing in 'best buys'. Instead, it requires aligning solutions with the complexity of the systems they seek to support, and continuously adapting them to changing conditions and priorities. Box 4 outlines approaches to effective scaling in the drylands that account for dynamic political, ecological and social conditions, as well as the informal institutions that underpin local resilience.

BOX 4. SCALING IN THE DRYLANDS

The following guidelines to scaling, adapted from Cooley and Howard (2019), are especially relevant to fragile drylands, where uncertainty is the norm and scaling requires particular attention to iteration and contextualisation.

Focus early on scale and on what is 'beyond the project'

Traditional approaches to scaling typically follow a linear model: first optimisation through technical fine-tuning, then improving efficiency, and finally expanding reach. But in fragile drylands contexts – where systems are shaped by uncertainty – this sequencing may not hold up. Pilots may falter not necessarily because they fail technically, but because they are not designed to endure amid uncertainty. Success frequently relies on local champions, donor flexibility or temporary funding arrangements. To scale sustainably in the drylands, aid actors must start by asking different questions: Who will carry this forward? What systems, relationships and enabling conditions are needed to sustain and adapt the approach? This is especially critical for community-led or market-based models, which typically require more time, flexibility and local ownership than conventional development programmes account for.

Think subtraction, not addition

As you develop and refine an innovation, do not just think about how to make it better; think at every stage about how to make it simpler, cheaper and more compatible with the procedures and incentives of the stakeholders you hope will deliver it at scale. This means recognising that complex contexts do not always necessitate complex solutions. In the drylands, the interventions that scale best tend to be those that simplify, reduce burden on local actors and build on what already exists. Designing for subtraction means removing unnecessary components and prioritising those that are socially embedded, low-cost and adaptable. For instance, strengthening trust-based livestock trade networks or informal credit arrangements may offer a more scalable route to resilience than introducing unfamiliar formal financial products.

Expect and plan for iteration

The pathway from innovation to scale, even when successful, takes an average of 15 years and involves multiple changes in intervention design and scaling strategy along the way. A capacity for course correction is typically more important than a perfect plan. In volatile drylands settings, what works today may not work tomorrow. Scaling strategies must therefore embrace iteration: probing, learning and adapting in real time. Rigid blueprints are unlikely to survive the shifting terrain of drylands contexts, where climate shocks, conflict dynamics and governance shifts are frequent. Iterative scaling may require flexible funding, 'safe-to-fail' pilots, and MEL systems that capture learning rather than just outputs. Building in feedback loops and responsiveness is not a luxury; it is a prerequisite for effective scale.

Evidence points to the length and flexibility of funding as being the critical enablers of this type of scaling in protracted crises (Kurtz, 2022). For instance, multi-year, multisectoral investments in the drylands of Ethiopia – which had historically only received short-term humanitarian funding – have protected lives and livelihoods during severe droughts, conflict and displacement (Mercy Corps, 2022). The longer-term, flexible funding enabled essential trial, error and learning for the programme to expand its reach and impact through both strengthened livestock markets and government-led humanitarian response.

4. CONCLUSIONS

Aid actors in the drylands of East and West Africa and the Middle East stand at a crossroads. For too long, interventions have treated drylands as marginal, applied rigid models ill-suited to their volatility and dynamism, or focused on short-term fixes that neglect the systems that drylands communities rely on most. The result has been interventions that are costly, misaligned and risk undermining the very resilience they seek to build. This report argues that the future of effective aid in fragile drylands contexts hinges on an unwavering commitment to flexibility, local embeddedness and systems thinking — principles that recognise drylands complexity not as a barrier to be overcome, but as the terrain on which resilience is built.

This will require a decisive shift: from bypassing local systems to strengthening them, from rigid procedures to flexibility, from simplified theories of change to earnest engagement with complexity. These shifts are essential preconditions for aid to remain relevant, effective and sustainable in the drylands. The following key messages set out the practical changes that aid actors and donors must prioritise if they are to meet this moment of challenge and opportunity.

Invest in the systems people already trust

Across SPARC's six years of research, informal systems emerged as the foundation of resilience in the drylands. Markets, community networks and mutual aid groups, for example, consistently provide households with food, credit, protection and information during crises, often more reliably than humanitarian actors. Yet aid interventions routinely bypass or even disrupt these systems, for example by discouraging resource sharing or privileging formal financial institutions. Investing directly in local response initiatives, supporting market actors with flexible credit, and engaging diaspora networks offer clear opportunities for aid actors to amplify the very systems that people already depend on. This is not only more efficient, but also more legitimate in the eyes of communities. Failing to do so risks inadvertently undermining local resilience capacities, while strengthening them offers the clearest path to scale and sustainability.

Prioritise flexibility as a core operating principle

Uncertainty defines drylands life. Pastoralists and agro-pastoralists adapt through mobility, reciprocal support and decentralised decision-making. By contrast, aid actors may be constrained by rigid logframes, earmarked budgets and risk-averse compliance systems. This rigidity produces delayed responses and interventions that may be misaligned with household priorities. SPARC research from Mali to South Sudan demonstrates that when donors and implementers build in flexibility through adaptive funding mechanisms, iterative learning and decentralised management, responses are faster, more relevant and less likely to undermine long-term aspirations. Flexibility must no longer be treated as an exception for crisis response; it must become the operational baseline for programming in the drylands.

Embrace complexity

Aid actors have too often treated the complexity of drylands systems as a problem to be managed or simplified, rather than as the reality on which resilience depends. Linear theories of change, sectoral silos and 'best buy' solutions are ill suited to the fluidity of pastoralist mobility, cross-border market flows or hybrid governance systems. SPARC research shows that ignoring these dynamics leads to late, duplicative or even harmful interventions – for example, discouraging aid sharing in Ethiopia or sidelining informal drought committees in

Dust swirls around camels in KilKile, Kenya.
Credit: Ezra Millstein, Mercy Corps

the Horn of Africa. Recognising that resilience is built through networks of relationships, by local actors who negotiate shifting risks and opportunities on their own terms, is essential. Embracing complexity means acknowledging that progress is often incremental, relational and resistant to linear cause-effect logic. It also means designing programmes that are context-responsive, cross-sectoral and willing to work with the messy realities of informal and formal systems in interaction.

Redefine what success looks like

The prevailing accountability frameworks in aid tend to prioritise short-term, easily quantifiable results, often at the expense of less tangible outcomes. Where aid actors may be incentivised to seek quick wins, communities often value trust, reciprocity and collective action. This mismatch risks undermining both relevance and sustainability. In the drylands, many of the most important building blocks of resilience, such as strengthened informal institutions, enhanced collective action or greater confidence to take adaptive decisions, emerge gradually and are difficult to capture with conventional indicators. For example, pastoralists' ability to reorganise livelihood strategies after a shock, or community groups' capacity to coordinate drought response, may not register in household consumption metrics but are critical markers of resilience. Recalibrating success metrics to place greater value on the intangible yet vital outcomes of trust, social capital and local ownership is likely to enhance the sustainability of interventions. Without this recalibration, aid risks continuing to undervalue the capacities and practices that make drylands communities adaptive and resilient.

Doing differently with less

Budget cuts and widening gaps between needs and available resources make 'doing more with less' a cliché turned necessity. But business as usual will only yield diminishing returns. The opportunity – and the imperative – is to do *differently* with less. None of this implies abandoning direct assistance or ignoring the humanitarian imperative. Food aid, cash transfers and other forms of direct support remain essential, especially during acute crises. But these interventions must be designed and delivered in ways that reinforce, rather than undermine, the systems that communities already depend on. By investing in informal systems, embedding flexibility and embracing complexity, aid actors can deliver interventions that are more impactful, more dignified and more sustainable, even in resource-constrained environments. The choice is clear: continue pouring scarce resources into rigid models or reorient aid toward the systems and strategies that communities already rely on.

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Cover: Women plant seeds near Hadado town in Wajir, Kenya. Credit: Patrick Meinhard, Mercy Corps

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This material has been funded by UK aid from the UK government; however the views expressed do not necessarily reflect the UK government's official policies.