REPORT

INNOVATION IN GOVERNANCE: INTEGRATING TECHNICAL AND CONTEXTUAL PERSPECTIVES TO ADDRESS FRAGILITY

Exploring SHARED, a participatory stakeholder approach to improve decision-making among pastoralists and agro-pastoralists in the Horn of Africa and the Sahel

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Key findings

- Due to their vulnerability, fragile and conflict-affected environments stand to gain the most from adopting practices based on ‘evidence’ and ‘data’. However, due to the complexity of the effects of climate change, as well as under-investment and recurrent instability in these regions, it is these very environments that especially resist the simple adoption of external ‘best practices’ and scientific knowledge.

- Since vulnerable and fragile contexts are especially complex, for example they may have weak institutional capacity and idiosyncratic political economies, applying external evidence such as ‘best practices’ requires stakeholders to engage in a decision-making process that seeks to synthesise technical information within the complexity of their specific context. This integration, rather than the simple adoption of best practices, is expected to lead to better outcomes.

- By analysing decision-making cases that applied a common multi-stakeholder engagement framework (the SHARED approach) in Ethiopia, Kenya, Mali, Niger and Somalia, we found that the integration of these two knowledge sources leads to decisions that are technically sound, appropriate to local context and perceived as legitimate.

- Through adaptive and flexible engagement, with a focus on inclusion, the SHARED approach triggered common causal mechanisms, such as shifting the zone of political possibility through deliberation and evidence; helping stakeholders navigate complexity through a clear – yet flexible – engagement process; and acting as an engine for adaptive management and technical support during implementation.

- Importantly, we found there are limits to any ‘framework’ – no matter the quality – to guide decision-making in complex contexts. An irreducible element in the SHARED approach’s success is the energetic willingness of its implementers to be responsive and adaptive, relying on internal motivation, rather than top-down compliance. This serves as a caution for funders seeking to scale successful models.
The mission of Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises (SPARC) is to explore models for building the resilience of communities as they navigate the compounding effects of climate change related to armed conflict, environmental fragility and weak governance. This report is the first of two, focusing on how decision-making can be improved within complex and fragile environments.

Summary

Building resilience among pastoralists and agro-pastoralists in drylands requires addressing systemic challenges within complex and often fragile political systems. Navigating complexity requires decision-makers to integrate two types of knowledge: technical, or generalisable expert and scientific knowledge; and contextual, concerning local political economy, society and ecology. There is broad consensus on the need for decision-makers to base policy and programme decisions on both of these sources of knowledge, especially in complex and fragile environments. However, little attention has been paid to how this integration can lead to improved decision-making that is technically sound, appropriate to local context and perceived as legitimate.

This research report centres on a specific decision-making framework, the Stakeholder Approach to Risk Informed and Evidence Based Decision Making (SHARED). SHARED aims to develop participation of stakeholders by embedding technical and evidence-driven decision-making within an understanding of local social, political and ecological systems. Since 2014, this approach has been used in complex and fragile contexts across Africa, and is formulated with special attention to complex and ‘wicked’ problems, with policy applications from local to national level. The SHARED process incorporates technological tools and consultation with technical experts to bring data closer to decision-makers. The SHARED approach can integrate innovative – and evidence-based – approaches into complex and fragile political contexts.

This report looks across SHARED’s applications in five sub-Saharan drylands contexts in Ethiopia, Kenya, Mali, Niger and Somalia. Given the complexity of the effects of climate change, under-investment and recurrent instability in these regions, there is no simple solution of adopting ‘best practices’. SHARED provides a structured and participatory process for contextualising existing technical expertise and evidence in these difficult cases.

This report introduces and describes the SHARED approach, and articulates causal mechanisms, which will be explored in more detail in the second report. As a process innovation, we illustrate how SHARED operates across three levels, as: (1) an orientation and set of principles; (2) a conceptual framework for decision-making consisting of four major phases; and (3) a set of concrete technical and facilitation tools for use in stakeholder meetings. This report identifies six causal mechanisms by which SHARED can improve decision-making, through influencing political decisions, helping stakeholders cope with complexity, and improving adaptive implementation.

Our research also emphasises the limits of a ‘framework’ – no matter the quality – to guide complex and, before engagement, ambiguous decision contexts. Instead, we find that a key element in SHARED’s success is the ability and energetic willingness of SHARED implementers to act as a broad-based consulting unit, providing both technical and strategic support within the cases considered. This role was highly responsive and adaptive, and relied on genuine motivation. This is a clear signal to funders and policy-makers that such approaches must be scaled carefully, and creates space for genuine relationships and deep engagement. Such success cannot be achieved through an entirely standardised approach.

1. Introduction

Droughts, conflict and other shocks over the past decade have affected an average five million people per year in the Horn of Africa and the Sahel, leading to an annual flow of about US$1 billion in humanitarian emergency aid into dryland areas. During this period, climate extremes faced by pastoralists and agro-pastoralists have increased in frequency and intensity, with some no longer able to overcome such shocks without outside assistance due to high levels of poverty, multiple livelihood stresses, and often weak governance. Climate-related shocks and their effects, such as increased conflict over scarce resources, and shifting populations, are expected to become more frequent and more intense in future. We need to improve our understanding of innovative approaches that build resilience and enable people to thrive in complex and fast-changing environments.

In trying to address complex and deeply systemic challenges, a long-standing divide in development has been whether to emphasise the application of either external technical knowledge – abstract, scientific and ‘evidence based’ – or contextual factors – such as political economy, institutional capacity and societal characteristics. In the past decade, a slowly emerging consensus has grown around the need for synthesising these two perspectives, and finding a model that empowers local actors to voice and synthesise their local knowledge with technical evidence provided by
the SHARED approach. These two approaches could be integrated in designing programmes and policies within specific situations. While this synthesis has become increasingly popular as an abstract intention, the optimal method for combining these two forms of knowledge is far from clear. Different groups may prioritise different knowledge sources, and there are few generalisable stakeholder-engagement frameworks which attempt to engage both sources of knowledge through a structured and inclusive process.

This report highlights a response to this gap, centring on the Stakeholder Approach to Risk Informed and Evidence Based Decision Making (SHARED), an innovative decision-making framework that seeks to guide stakeholders in integrating both technical and contextual knowledge within a specific ‘decision case’. Within the framework, stakeholders potentially include all parties involved, or with a legitimate claim to be involved, in a decision-making process. SHARED aims to supply both types of knowledge to inclusive, multi-stakeholder spaces, facilitating a deliberative process by which emergent decisions are simultaneously technically sound, contextually feasible and locally legitimate. Since 2014 the framework has been applied in over 19 countries with tailored tools and methods adapted to specific contexts (Figure 1).

SHARED was developed by scientists and engagement specialists in the SHARED Decision Hub based at the international research organisation, World Agroforestry (ICRAF) and refined in partnership with local and national governments, non-governmental and civil society organisations. With support from a range of programmes, the SHARED approach has been applied in pastoralist and agro-pastoralist regions of the Horn of Africa and the Sahel, supplying technical assistance and institutional support to decision-makers.

FIGURE 1: THE SHARED APPROACH

Source: SHARED Decision Hub.

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1 More formally, this process can be described as ‘thickening’ middle-range theories, or localising and adapting a more abstract theory of change underpinning a policy or programme design, making it more concrete and responsive in reference to a specific application (Cartwright et al., 2020: 38).
This report describes how SHARED works, and then unpacks the key attributes and mechanisms contributing to its success. These findings are based on five cases of the SHARED approach operating in pastoralist and agro-pastoralist regions of Kenya, Ethiopia, Somalia, Mali and Niger. These cases show how a multi-stakeholder, inclusive framework can leverage both technical evidence and contextual knowledge through a generalisable decision-making process which can be deployed in distinct contexts facing ‘wicked’ and complex challenges (Neely et al., 2021). The combination of technical expertise (often associated with international and/or elite ‘experts’) alongside deep partnership with local actors, who have access to highly textured local knowledge, integrates two approaches often seen as opposing. Decision-making is often perceived as either a primarily technical process or a contextual, adaptive and/or community-driven process. The diversity of contexts in which SHARED has been applied, and the variation in partners involved, lends itself to the comparative approach undertaken in this report, in which success factors are identified across contexts, each signalling that SHARED was able to guide a stakeholder process integrating technical and contextual information to improve decision-making.

2. How SHARED works

SHARED is a participatory approach to decision-making, which emphasises the integration of technical knowledge with a deep understanding of context. While there is wide agreement that good policy-making must be both technically sound and contextually appropriate, there are few proven models for how best to integrate these two types of information in complex, real-world decision-making processes. Further, the SHARED approach is explicitly oriented towards inclusive processes, increasing buy-in and legitimacy for current and future decisions.

SHARED aims to provide a clear framework for combining these two sources of information within a structured engagement process, which manages relationships and brokers multi-stakeholder, cross-sectoral partnerships, ultimately linking science and local knowledge. The SHARED framework is grounded in the notion of transformational resilience, supporting stakeholders to orient around long-term, system-wide resilience as a central goal (Neely et al., 2021).

The aim of the SHARED process is to produce decisions that are simultaneously:

1. technologically sound, considering empirical and scientific evidence, ensuring that decisions match the problem technically (and will ‘work’ as intended), and that the problem is correctly understood empirically

2. appropriate to local context, given existing contextual constraints and opportunities spanning institutional, political, societal and environmental factors

3. perceived as legitimate, by an inclusive range of actors, including central and local, with stakeholders ‘bought-in’ to implementing or following the decision.

SHARED is often implemented alongside ‘decision-making dashboards’, designed to provide decision-makers with actionable and summary technical data. Typically, SHARED assists by providing the capacity for data collection or analysis. Alongside this, contextual information (e.g. systems, stakeholder and power mapping) is gathered from ongoing and iterative engagement with key stakeholders and multi-stakeholder gatherings.

SHARED is explicitly modular and adaptive by design. Therefore, the application of SHARED varies substantially between contexts – perhaps engaging only some phases or emphasising only certain principles, depending on the nature of the case. This variation poses a challenge for an overarching definition. However, in interviews, SHARED implementers characterise the framework

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2 For a broader account of its diverse applications, see SHARED’s Resource and Outputs: https://www.worldagroforestry.org/shared/resources-outputs.

3 This report is the first of two in the study, serving as a description and theoretical account of SHARED and its application in five pastoralist or agro-pastoralist contexts. The second report, building on this first, will use an in-depth comparative case design to explore whether and when the theoretical elements outlined here operate between contexts.

4 Technical decision-making is more positivistic, emphasising expertise and formal ‘evidence’. It is often associated with ‘evidence-based’ decision-making, in which organisations, governments and funders are encouraged to draw on experimental evaluations to identify ‘what works’, as guidance for policy design in their own contexts. Prominent examples are the US Government’s What Works Clearinghouse, the J-PAL research centre’s catalogue of evaluation studies and briefs; and the Campbell Corporation’s systematic reviews across social intervention categories (Cartwright and Hardie, 2012).

5 A context-based decision-making approach is decidedly less positivistic, viewing social complexity as inhibiting easy routes to generalisability, which may hold in the natural sciences. Context-based approaches emphasise emergent and iterative policy and programme solutions. This stance is best exemplified by varying practitioner-oriented movements such as: Thinking and Working Politically (TWP), Problem Driven Iterative Adaptation (PDIA) and Doing Development Differently (DDD) (Teskey, 2022).

6 This process of synthesis is best represented by, jointly: a renewed focus on understanding how mechanisms map onto different contexts; and the concept of transportable ‘middle-range’ theories that can be specified at different levels of abstraction, with more concrete and ‘thickened’ versions being adapted to specific contextual factors to ensure the operation of mechanisms within the more abstract theory(ies) (Cartwright et al., 2020; Bates and Glennerster, 2017; Floretta et al., 2020; Gugerty and Karlan, 2018).
as operating at three levels: principles and orientation; conceptual framework; and concrete activities. These three levels mirror SHARED’s published descriptions. How SHARED is applied also depends on characteristics of the implementing team – emphasising the importance of providing broad-based and high-capacity technical support throughout the process.

SHARED’s application is characterised by a set of principles, which allows it to maintain its identity despite adaptation to different contexts. While these values are partially embedded in the SHARED material, which further concretises the process, their expression and deeper understanding are most likely ‘housed’ within the implementing team itself. Below, we stress values and orientations that emerged inductively from interviews with SHARED implementers and partners. Figure 2 shows six key principles we identified from this practice.

A four-phase conceptual framework allows implementers to navigate a ‘decision case’ by providing a generalisable roadmap for ‘where’ a decision-making process is and what to do at different points. However, it does not specify how to go about this. Each decision case consists of four distinct phases, which exist universally, even if SHARED does not actively engage with all phases: (1) context; (2) integrate evidence; (3) prioritise and plan; and (4) learn and respond (Neely et al., 2020). This conceptual framework provides a basic set of phases for navigating the process of decision-making (Figure 3).

When asked how the SHARED approach differs from other models of stakeholder engagement, an implementing partner reports that, in other projects, an organisation may become ‘lost’ in the middle of implementing a project, unsure of how best to approach complexity and decision-making in the messy process of implementing a programme (discussed further in Section 4.2). The SHARED approach however:

“facilitates that navigation. You know where you’re going; you know where you’re heading; and you know that your decisions are well supported by evidence.” (SHARED implementing partner)

Finally, SHARED has developed a concrete set of modular ‘tools’, or activities to be used within both stakeholder workshops and broader meetings or key engagement events planned within a SHARED process. SHARED has codified at least 19 of these tools, each serving a specific, commonly occurring function, but tailored to the context or relevance, such as systems and stakeholder mapping – in which the complexity of a decision case is publicly ‘mapped’ to showing interconnections and relationships.8

2.1 SHARED as a broad-based and high-capacity technical backstop

While concrete tools and their associated methods capture many of the outward-facing processes that SHARED undertakes, they do not (and could not) capture the responsive support and technical ‘backstopping’ that was

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7 These are not the official principles stated by SHARED, but were inductively identified through the interviews that informed the country cases included in this study. As might be expected, there is overlap with SHARED’s published principles. The interview-based principles are intended to indicate those which came through strongly in the cases, and do not preclude other principles appearing in SHARED official documents.

8 The tools are divided into two groups: (1) stakeholder processes and relationships (consisting of clusters 1 and 2); and (2) evidence and policy processes (consisting of clusters 3, 4 and 5). The 5 clusters and 19 tools are as follows: cluster 1, stakeholder mapping and influence – (a) systems mapping, (b) stakeholder mapping, (c) influence and power relationships, (d) causal analysis and (e) outcome mapping; cluster 2, deepening relationships – (a) planning for sustainability, (b) multi-stakeholder platforms and (c) sequencing relationships; cluster 3, power dynamics – (a) multi-scale nesting of goals and targets, (b) visioning/policy aspirations and (c) negotiating power dynamics; cluster 4, principles of advocacy – (a) design and implementation, (b) decision cycles and (c) understanding influence; cluster 5, communicating and integrating evidence into policy processes – (a) evidence culture, (b) information flow, (c) communicating evidence, (d) evidence wall and (e) co-design of decision platform (Neely et al., 2020).
a defining aspect of SHARED’s engagement. Across all applications, SHARED filled capacity gaps as needs arose within a ‘decision case’. This included diverse functions, such as: navigating, generating, presenting or analysing data; creation of systems for collecting information or stakeholder management; and strategy consultation.

2.2 SHARED implemented as external expert support
While not part of the definition we use, the SHARED framework assumes implementation by SHARED implementers. These are external experts with both the technical capacity and perceived legitimacy to act as stakeholder facilitators and knowledge brokers. Across applications, the SHARED team members had very strong technical and interpersonal capacities and their association with ICRAF provided a deep well of expert legitimacy. As external consultants, the SHARED team members were seen as politically neutral, yet motivated to promote socioecological ‘good’. In contrast to common patterns of political economy analysis, where the external consultant produces an analysis for use by decision-makers, SHARED’s external experts facilitated an emergent decision-making process.

3. Two cases: Turkana County (Kenya) and Regreening Africa (Ethiopia, Mali, Niger, Somalia)

Our research explores two broad cases of the SHARED approach, looking at applications across five country contexts. The first case was in Turkana County, Kenya, where SHARED worked closely with the Finance and Planning Ministry within the County Government over a six-year period to improve the participatory budgeting process and resulting five-year county development plan. The second application is Regreening Africa, a five-year programme coordinated by ICRAF across eight countries in partnership with a consortium of non-governmental organisation (NGO) implementers. A primary aim of the programme is to reverse land degradation through agroforestry, with an emphasis on shifting policy, improving agricultural techniques and improving markets.

9 SHARED was applied in Turkana with support from USAID, UNICEF and Turkana County Government.
10 Regreening Africa is funded by the European Union.
11 The day-to-day implementation in these four countries is the responsibility of implementing NGO partners including World Vision (WV), Catholic Relief Services (CRS), Oxfam and CARE International.
Of these eight applications, four are included in our sample: Ethiopia, Mali, Niger and Somalia.

From a comparative perspective, the primary variation between cases comes from the application of SHARED itself – including in terms of modality, positionality and purpose, which are ‘most different’ (Seawright and Gerring, 2008) across a number of elements. In contrast, the country and regional contexts of the cases share a number of environmental, socioeconomic and political characteristics. The causal mechanisms we identify in Section 4 are those which appeared in both cases, despite this variation.

### 3.1 Contextual similarities

Both cases represent fragile and conflict-prone contexts, at the national and/or sub-national level, affected by multiple socioeconomic and historical factors. Understanding how decision-making can be improved in such contexts is pivotal, as these are common characteristics of societies experiencing ‘wicked’ and seemingly intractable problems and whose populations are often failed by externally identified, ‘best practice’ policy solutions. Such superficial approaches are often inadequate to address the complexity of local systems and constraints, such as the limited capacity or quality of institutions (leading to inability to implement existing policy), poor regulatory quality (leading to contradictory or perverse incentives), or intricate power dynamics underpinning fragile political arrangements.\(^{12}\)

Within our cases, pastoralist groups are especially vulnerable, due to both the threat of rapid climate change and, often, also historical marginalisation from development and political power at the sub-national level, such as in Kenya’s Turkana County (Odhiambo, 2013). All contexts are regions of arid and semi-arid land, with inhabitants living in exceptional poverty.\(^{13}\) Many face land degradation combined with climate change – a severe humanitarian and development issue which also exacerbates conflict over diminishing natural resources (Mercy Corps, 2021). In the Regreening Africa contexts, the dominant economic activity in each – subsistence farming and pastoralism (including agro-pastoralism) – is highly sensitive to land degradation. In most,\(^{14}\) there is conflict between farmers and pastoralist groups, often overlapping with ethnic and/or religious identities (Mkutu, 2018). All are characterised by systemic challenges such as relatively limited education\(^{15}\) (World Bank, 2022), some degree of state instability and uneven political institutions that struggle to provide equal access to public services, rule of law and civil rights (Freedom House, 2022a–e; Kaufmann et al., 2009).

### 3.2 Case variation

In contrast to the similarity of all the case contexts, the application of SHARED represents ‘most different’ case selection between Regreening Africa and Turkana’s participatory planning case. This is due to four major factors, as detailed in Table 1.

The two cases vary significantly, showing that SHARED can be implemented across very different contexts. The Turkana case represents a smaller scale (county-level) and had a more direct and close relationship with local political actors, who actively solicited the SHARED implementation team before engagement. The overall process was also emergent, taking a flexible and adaptive approach to implementation as the decision case unfolded. In contrast, the Regreening Africa case took place within highly structured, nested national and sub-national contexts (within each country), and the SHARED

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\(^{12}\) For example, World-Bank-led forest reform in Mali applied international best practice, yet led to adverse results due to local sociopolitical constraints (Gautier et al., 2013).

\(^{13}\) This is meant as a broad description, while acknowledging variation between the regional contexts.

\(^{14}\) Excluding Somalia, which is dominantly pastoralist.

\(^{15}\) With Kenya as a moderate, positive outlier. However, even then, the evidence suggests Kenya’s success in increasing years of schooling has failed to produce the expected learning due to exactly the institutional constraints we point out here (Pritchett, 2015).

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**TABLE 1: KEY VARIATION BY CASE**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Turkana case (Application: Kenya)</th>
<th>Regreening Africa case (Applications: Ethiopia, Mali, Niger, Somalia)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positionality</td>
<td>Direct and close relationship with key political stakeholders; local political actors as client</td>
<td>Indirect relationship with key political stakeholders; international NGO as client</td>
</tr>
<tr>
<td>Objectives and purpose</td>
<td>To apply an evidence-based approach to the county-level integrated planning and budgeting process</td>
<td>Reversing land degradation across 1 million hectares of land, linking regreening practices to 500,000 households</td>
</tr>
<tr>
<td>Adaptive or pre-structured process</td>
<td>Largely adaptive</td>
<td>Largely pre-structured</td>
</tr>
<tr>
<td></td>
<td>An ongoing collaboration with the Turkana County Government Ministry of Finance and Planning, which attracted outside funding to support the engagement. This funding and iterative structure allowed for a highly emergent and adaptive process.</td>
<td>Planned engagement structure at project-design stage and allocated annual budget to the SHARED team. Formalised stakeholder-engagement structure, with substantial pre-commitments. Smaller, though still significant, space for adaptation.</td>
</tr>
</tbody>
</table>
implementers’ relationship with political stakeholders was more mediated. Political stakeholders were not the primary client, which was instead the European Union as funder, or ICRAF as leader of the consortium. Additionally, the larger scale of Regreening Africa resulted in a more pre-committed implementation structure (including data dashboards, annual and quarterly stakeholder meetings) led by NGO implementing partners rather than SHARED implementers. Adaptation and iteration were still possible in Regreening Africa, but within a more limited range of broader structures.

4. What have we learned? Advantages of SHARED

We identify six causal mechanisms that seem to hold constant across both case studies, and appear most significant for reaching decisions that are simultaneously technically sound, appropriate to the local context, and perceived as legitimate enough to achieve local buy-in and increase capacity for collective action. As shown in Figure 4, we have grouped the six mechanisms into three broader categories: influencing political decisions, coping with complexity and improving implementation.

4.1 Influencing political decisions

The SHARED framework affects political decisions in two key ways. The first of these is by shifting the zone of political possibility by influencing stakeholders’ mental models, preferences or understanding of payoffs. This occurs via providing evidence or deliberation, which persuades stakeholders to change their opinions (Box 1). SHARED implementers stress that providing evidence, and deliberating with reference to ‘objective’ evidence, rather than personal opinion or political calculation, changes the tone of these deliberations, and enables better solutions. A number of SHARED inputs relate to this process (often in combination), including data dashboards, engagement with evidence, field visits and participatory information, advocacy, experimentation/piloting, and multi-stakeholder deliberation.

The process by which this data is generated, and where it comes from, also seems to matter for its ability to persuade. For instance, the SHARED teams (in close collaboration with partners) have helped to arrange both scientific experiments (in Niger and Mali) and policy pilots (in Ethiopia). ICRAF staff members emphasised that the evidence generated locally, and often in collaboration with distributed, local stakeholders, provided much more legitimacy, because the stakeholders were participating directly in the process of generating the data, and felt that the results would generalise more easily to other parts of the country.

The second mechanism for influencing political decisions is maximising political possibility via strategic stakeholder engagement. The key difference between this and the first mechanism is that the ‘zone’ of political possibility does not shift but, rather, SHARED helps guide stakeholders towards more optimal decisions, given existing preferences and mental models (Box 2).
Coping with complexity

The second category, coping with complexity, also includes two mechanisms. The first of these is clarifying complexity related to administration, data and evidence. In this, the SHARED process helps governments grapple with the complexity of implementing large-scale programmes by introducing standardised data collection, such as via the Regreening App and/or quantitative accounts of soil health. SHARED implementers may also act as data brokers, connecting decision-makers to summarised and palatable scientific knowledge, or helping to clarify and summarise relatively opaque academic knowledge. It seems that providing summarised data via an online ‘dashboard’, as part of the SHARED process, was perhaps more important symbolically, than in terms of its analytical value to decision-making (Box 3). The dashboard provided stakeholders with a way in which they felt they could ‘understand’ their context, but there were few opportunities for use of the online tools. More practically, SHARED implementers themselves either

analysed and brought data to meetings (e.g. by printing sheets with summary data and displaying them during meetings), or connected decision-making spaces with experts who provided recommendations.

The fourth mechanism, and the second in this category, is clarifying the complexity of stakeholder engagement and decision-making processes, which are both evidence- and context-informed. Stakeholder engagement processes and decision-making are inherently messy and idiosyncratic. Yet, the SHARED approach can make the process conceptually approachable – by providing a semi-standardised and modular structure – but also describes how to gather technical evidence and contextual knowledge, and then marshal both types of information to inform policy or programme-level decision-making. This is represented by SHARED’s four primary phases of a decision case alongside the modular tools.

Interview respondents describe these mental models as helping them avoid ‘becoming lost’ in the process of stakeholder engagement and technical data collection, and also ensuring that they were not neglecting a certain step or aspect. One implementing partner described the value of SHARED in helping to navigate complex stakeholder processes:

16 This phrase is borrowed from Elinor Ostrom's notion of ‘coping with complexity’, in which technical knowledge is integrated into a more adaptive and iterative process of testing different institutional solutions (Ostrom, 2005: 242).

17 A concept similar to ‘legibilizing’ derived from James Scott’s famous work, Seeing like a state, in which central actors must make complex, organic processes more ‘orderly’ and standardised, to understand and act on them (Scott, 1998).
"[SHARED] lightens the whole process [of project implementation]. Many projects, half-way through you get lost in the middle of nowhere. With the SHARED approach it’s much more systematic. You have the different components and they are well integrated ... things are not randomly done or fully spontaneous. This helps you navigate through the complexity and identify the correct challenges to work on and the causes of these challenges." (Implementing partner, Niger, Regreening Africa)

**BOX 3: DECISION-MAKING DASHBOARDS AND THE LURE OF ‘TECHNOLOGY’**

Providing online, decision-making dashboards is the most prominent example of how SHARED sought to make administrative data and evidence understandable and actionable for non-technical decision-makers. The SHARED implementers organised a co-design for decision dashboards, in collaboration with the CIFOR-ICRAF Spatial Data Science and Applied Learning Lab (SPACIAL). The resulting dashboards integrate multiple data sources to make data at varied scales meaningful through maps, charts and tables, which can be updated in real time.

Across both cases, these dashboards were intended to serve as a tool for guiding decision-making by providing summarised data across sectors (e.g. education, land health, nutrition, and water and sanitation). However, in practice, they often served as a symbol of legitimacy for the decision-making process, but were not actually used to affect specific programming decisions. For instance, in Regreening Africa, the Regreening App allowed state actors to monitor the progress of the project in real time. This was symbolically important and impressive to government. However, we found very few examples where the information was used as the basis for a decision. This can be interpreted in two ways: first, perhaps government actors used the app in ways that were not captured; or, second, the app could have generated pride and admiration by seeming to be an important government function, even though it was not used as intended. In either case, the online structured data provided legitimacy to the SHARED engagement, from the viewpoint of the government partners, which was important.

* The Turkana dashboard is publicly available for reference: https://dashboards.icraf.org/app/turkana

4.3 Improving implementation

SHARED’s ongoing, informal and responsive support to implementation was crucial for the success of the approach. The fifth mechanism is acting as an engine for adaptive management and iterative learning. In both cases, the SHARED team members, operating as facilitators of the multi-stakeholder process, provided regular and ongoing adaptive management support for implementing partners (in the Regreening case) and for the Turkana County government. This centred on taking action, be it political engagement or small experiments or pilots, and then re-assessing what the appropriate ‘next step’ might be. Specific steps included organising and analysing pilots and experiments, setting up monitoring and evaluation, and ongoing strategic consultation.

The final and sixth mechanism is providing flexible technical support. Across both cases, SHARED provided substantial technical support and backstopping which was not pre-planned or strictly stakeholder engagement. Activities included data collection (running experiments or policy pilots in the Regreening case), providing technical trainings or implementation material (such as for community-level FMNR groups in the Regreening case, or for participatory facilitators in Turkana) and designing institutional systems (such as co-designing internal management systems in Turkana County or evaluation systems in Regreening). This dedication to provide whatever technical support is ‘necessary’ lies at the heart of the SHARED approach, which is meant to be truly responsive and adaptive.

*SHARED is the capacity to do ‘what’s necessary’ in a reflexive and adaptive way, rather than a pre-planned process ... This commitment is enormously lacking in other [decision-making] application contexts. It makes it extremely difficult to ‘cost out’ the SHARED process in other contexts, because effort is quite variable, and must adapt to the context and problems. This is core to the adaptive management thinking at the heart of SHARED.’ (SHARED implementer)

SHARED implementers were well positioned to serve as a broad-based reservoir of technical capacity, due to its founders’ close affiliation with ICRAF, an international renowned technical hub for agroforestry. SHARED implementers were able to respond dynamically to a wide range of needs in order either to generate information or to build systems needed for implementation.

18 This role of a SHARED implementer or facilitator is analogous to the role of an ‘interlocutor’ within multi-stakeholder initiatives (Fowler and Biekart, 2017).
5. SHARED as enabling innovation

SHARED represents a systematic model for enabling innovations to transfer to new local contexts. This is evident in the Regreening Africa case studies, which supported the adoption into the dryland context and scaling of an already identified innovation. Farmer-managed natural regeneration (FMNR) is a locally novel solution for reversing land degradation and promoting economic development through smallholder agroforestry. Within Regreening Africa, SHARED’s role was to provide evidence that FMNR will be crucial for governments to meet their national goals to reverse land degradation and increase economic activity (Box 4). However, in interviews, staff repeatedly emphasised that SHARED’s main contribution was deploying this scientific knowledge within a stakeholder-engagement process, navigating national and sub-national political environments to ensure uptake.

6. Conclusion

The SHARED approach highlights how process innovations can help to solve a classic problem within development: how to facilitate inclusive decision-making processes which integrate both technical and contextual knowledge, allowing local stakeholders to make decisions that are contextually appropriate, technically sound and locally legitimate. As we argue, fragile and conflict-affected contexts are most in need of such a model. Stakeholders here must navigate the inherent complexity of these contexts, arriving at decisions that respond to local constraints while still integrating evidence. Understanding how to introduce – and facilitate – processes to respond to novel evidence, alongside contextual factors, is crucial for scaling technical solutions themselves. Any approach or idea requires uptake to make an impact.

Both of the cases discussed in this report show how the SHARED approach contributed to increased resilience. In the Turkana case, improved county-level decision-making is crucial for the provision of public goods in an evidence-based and inclusive manner. The Regreening Africa case is explicitly oriented towards reversing land degradation in the face of both climate change and decades of overuse.

In this report, we begin to unpack how the SHARED innovation operates, establishing a working definition, outlining underlying mechanisms and asking open questions. The following stage of our research will test how, whether and when these mechanisms operate, seeking to understand how these elements of SHARED could transfer to other contexts and applications.

Remaining questions and key tensions animate our ongoing research. We will explore these in field work and ongoing interviews:

BOX 4: SUPPORTING FARMERS TO ADOPT INNOVATIVE REGENERATION PRACTICE

The SHARED approach led to increased uptake of FMNR across all Regreening Africa applications. In Ethiopia, it allowed for pockets of experimentation, where local government allowed limited tree-pruning on communal land on a trial basis, following engagement in multi-stakeholder meetings and with technical backstopping from the SHARED implementers. In Niger, the SHARED process led to a Presidential Decree regulating and promoting FMNR as a national regreening strategy. SHARED-related stakeholders created a strategy for disseminating the decree alongside technical advice in collaboration with religious leaders and radio broadcasters. In both these cases, the SHARED process allowed for an innovative model to be integrated into decision-making, and the implementers and stakeholder groups provided both technical advice and contextual knowledge which led to increased uptake of the model in practice.

1. What incentives or disincentives do funders introduce when funding and reporting on ‘soft’ inputs, such as stakeholder engagement, compared to ‘hard’ technological inputs, such as online data dashboards?

2. What conditions are necessary for SHARED to empower marginalised groups, as envisioned in the participatory and deliberative governance literature (e.g. Gibson and Woolcock, 2008)?

3. To what extent and when does SHARED decrease the role of political distortion in policy and allocation of public goods?

4. What are the factors for sustaining the system-level change envisioned in SHARED, when the model depends on external facilitation and technical support bounded by discrete project life-cycles?
Acknowledgements

This research is indebted to the excellent support and collaboration provided by ICRAF and Sabrina Chesterman and the wider SHARED Decision Hub team, Oxfam-Mali, World Vision-Ethiopia, CRS-Ethiopia, Care-Somalia. We also recognise the EU for funding the Regreening Africa project. This research was also made possible through funding from FCDO. Foremost, we thank the respondents who shared their experiences and insights in hopes of a better future.

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