SPARC
Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises

April 2022

ISSUE BRIEF

MAKING THE CONCEPT OF RESILIENCE IN THE SAHEL MORE USEFUL

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KEY MESSAGES

- Most people who need to contribute to supporting resilience in the Sahel do not use the label 'resilience' for their work.
- Creating the policies and investments needed is a huge and collective endeavour, involving economists, agricultural scientists, sociologists, market and health specialists, experts in social protection and humanitarian action, and many others. Each national government is responsible for the vision of what would be a sustainable economy and viable livelihoods in their country.
- A common language is needed for policy-makers across the different sectors to understand how different contributions combine and what should be prioritised. The current resilience discourse is highly insular and is preventing communication with all the efforts to build resilience that do not use that label.
- The dominance of resilience-speak has also divorced the resilience sector from the real world in several critical ways. The problem identification ('more droughts, more vulnerability') does not relate to the facts; the problem analysis is disconnected from concrete issues in people's lives; and monitoring and evaluation (M&E) in resilience language is preventing lessons being learned about what actually helps people.
- Although investments in resilience are promoted as a way of reducing future humanitarian need, in practice the two exist in different silos with no common points of reference, metrics or language.
- Resilience frameworks and resilience lenses are not the problem. They have a lot to contribute, but they have to be used in radically different ways. They need to be put at the service of collective efforts to improve people's lives, rather than dictating the terms of the efforts of a discrete resilience clique.

ACKNOWLEDGEMENTS

Many thanks to all those who gave comments on earlier versions of this paper, in particular Heidi Gilert (FCDO), Mauri Vazquez (ODI) and Steve Wiggins (ODI). This paper 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 and Development Office (FCDO).

The interpretations and opinions expressed in the report are not necessarily those of the SPARC programme and its consortium members. The author is solely responsible for any errors and omissions.

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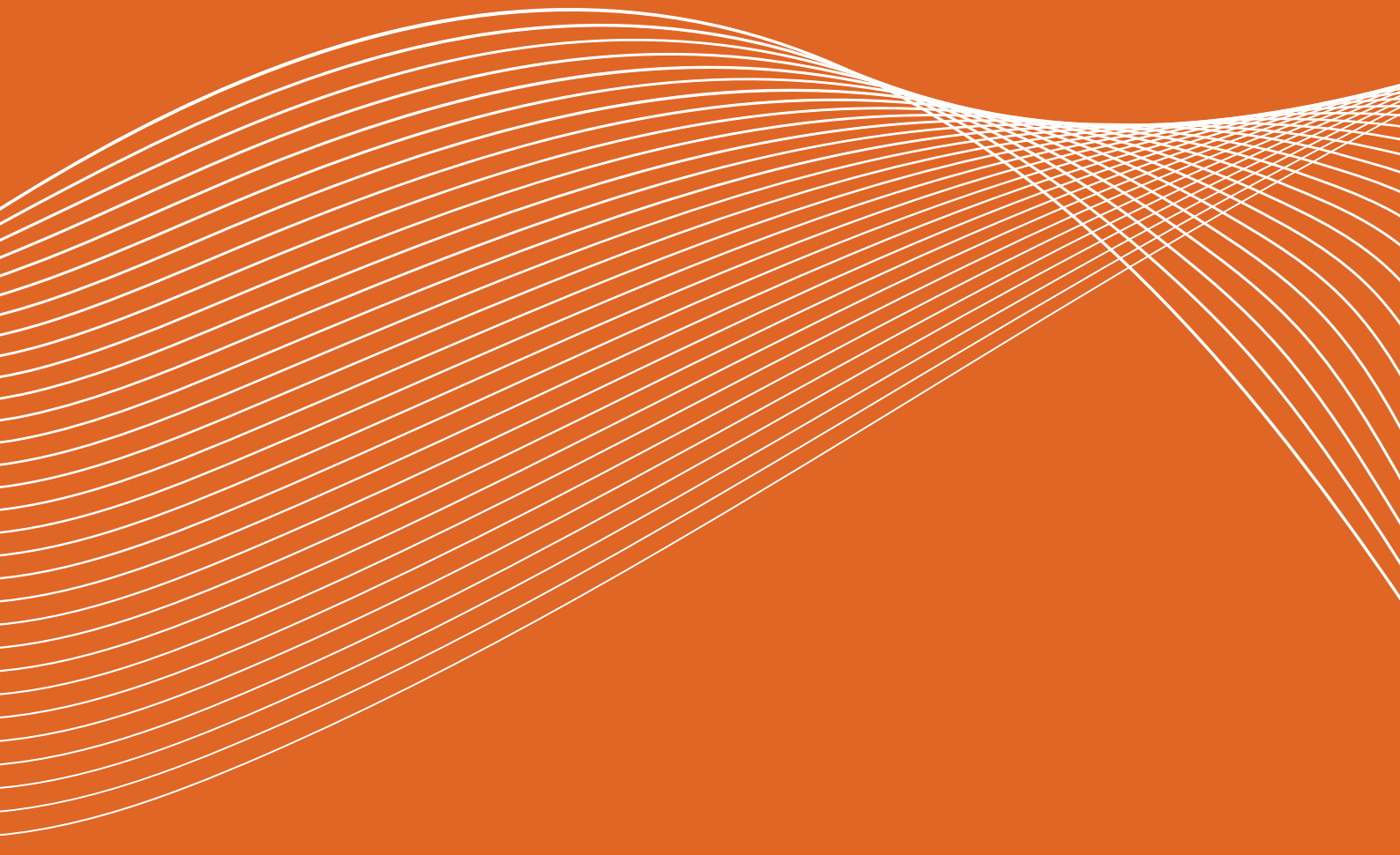


1. INTRODUCTION

Governments in the Sahel, and the many agencies supporting them, have invested in resilience-building over a number of years, often replicating activities that have long since been financed under different labels. Although there are several ways of thinking about resilience, the overall goal of such investments is fairly straightforward: to ensure that everyone can meet their own needs independently, and that they can cope with – and recover from – the difficulties that life continually throws at them. After several years of investments across many sectors, it should be possible to do a simple stocktake of lessons learnt to answer three, straightforward sets of questions essential in informing strategies for supporting resilience:

1. What impact would there be on the need for humanitarian assistance in the event of a drought if current resilience projects all met their objectives? What impact would there be on poverty levels (i.e. in the absence of a specific shock)?
2. How much would it cost to make emergency food assistance unnecessary in the event of a drought? (Or to reduce humanitarian needs by any other percentage?)
3. Which intervention types have been most cost-effective in making progress towards this? What has their effectiveness, and cost-effectiveness, depended upon?

Even rough and ready answers to these questions would enable better support to governments to develop costed plans with a known timetable for achieving a given level of resilience in their countries in the most effective way.

Originally, this paper set out to examine all published evidence in order to answer these questions, but it quickly became apparent that it would be impossible to make much progress. Even if there was no expectation that exact answers with a scientific evidence base could be drawn, the fact that there was almost no evidence to *allow anything* to be concluded was already a problem. Yet, the problem is worse than this.

As the reasons why the task was impossible were examined more closely, it became clear that the concept of resilience was playing a dual role in efforts to help people cope with life's difficulties in the Sahel. On the one hand, it provided a shared objective for actors from different professional cadres, communities of practice, across governments, civil society and aid partners; and further, it provided an objective that could be achieved only by breaking down silos that separate, for example, humanitarian and 'development' actors.[1] On the other hand, it was making it impossible for them to share learning – and worse, it was creating a barrier to problem analysis, the development of sound theories of change (ToCs) and effective strategies, and learning lessons from successes and challenges faced.

This does not need to be the case. This paper explores the mistakes being made in how resilience has been discussed in the Sahel in recent years, and how it has paradoxically undermined efforts to support resilience. It identifies some practical steps that can be taken to make the word 'resilience' useful.

The paper was originally written in 2019 as an unpublished report. The analysis drew on: a detailed examination of aid programme documentation; a wide range of literature on the challenges facing the Sahel; and documents from resilience programming and investments in the Horn of Africa and East Africa (i.e. the eastern part of the Sahelian belt). This was combined with interviews with key informants from the humanitarian and development sectors.[2] Very recent literature has therefore not been included in the analysis. The paper does not include any review of the quality of resilience programming: it discusses only the ways in which resilience programming has been spoken about and analysed. It does not look at or make any judgements – positive or negative – on the impacts of the projects themselves.

This paper is not a criticism of any resilience framework: all those studied had value in opening new analytical windows on the problems facing people in the Sahel. The objective of this paper is rather to unlock their potential by offering better ways of applying them – each and every one.

SECTION 2

HOW THE CONCEPT OF RESILIENCE HAS BEEN USED IN THE SAHEL

2.1 Getting the problem wrong

Most organisations working on resilience-related matters in the Sahel share one overall problem analysis: droughts are becoming more frequent, leading to an 'underlying trend of increasing chronic vulnerability' (Gubbels, 2011). As a result of droughts and other shocks:

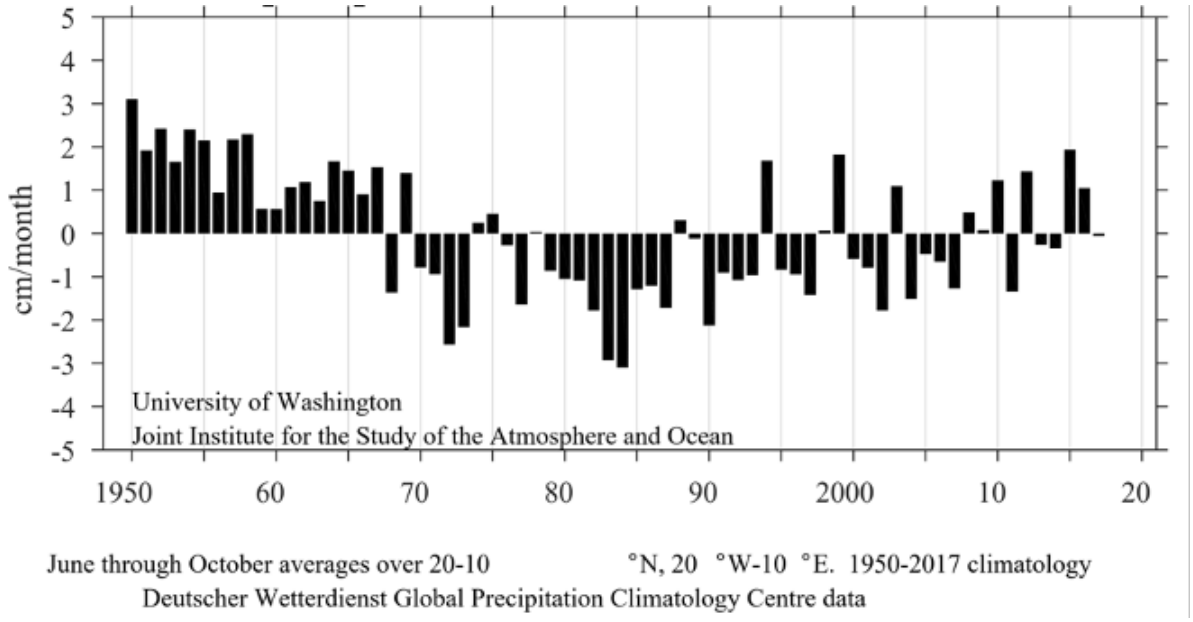
> households are forced to sell productive assets or become indebted, creating a downward spiral that leaves them more vulnerable and less able to take advantage of the next opportunity to climb out of poverty and up the economic ladder. (USAID, 2018)

The downward spirals of asset loss, ecological degradation and increasing destitution are further threatened by climate change, which is making shocks ever more frequent and serious. These ever-present themes form the underlying justification for investment in resilience. Given an ever-worsening situation, and ever-increasing humanitarian needs, it is no longer possible to rely on humanitarian assistance to protect populations, because costs are too high. It is both more cost-effective and more humane to invest in resilience to reverse the spiral and prevent crisis.

This analysis may seem uncontroversial, but it should not be taken for granted. Surprisingly to many, this depiction of the problem in the Sahel is at best partial and misleading, and at worst highly inaccurate. Rainfall and droughts are *not* worsening: rainfall in the past decade has been much higher than during the previous 15 years. This has been the long-term pattern in the Sahel, the alternation of periods of 10 to 20 years of higher and then lower rainfall. Figure 1 shows the historic rainfall for one site, but it is a fairly typical picture. This is not the whole story. Drought severity is not only about total annual rainfall; it is also shaped by temperatures (undoubtedly rising due to climate change) and the distribution of rain. However, Figure 1 does at least challenge the conventional wisdom of ever-more frequent droughts.[3]

The story of increasing poverty and vulnerability in the Sahel is no more accurate. Over the long term, and on almost any measure of well-being, most people's lives have been getting better. Malnutrition, food production and mortality (both maternal and for children under the age of five) have all shown improvements over the past two decades – albeit from a very low starting point and in some cases at a slow rate. Life expectancy has increased steadily and is now 25% to 40% higher than it was in 1990 (and 70% to 107% higher than it was in 1960, except for Chad; see Figure 2).

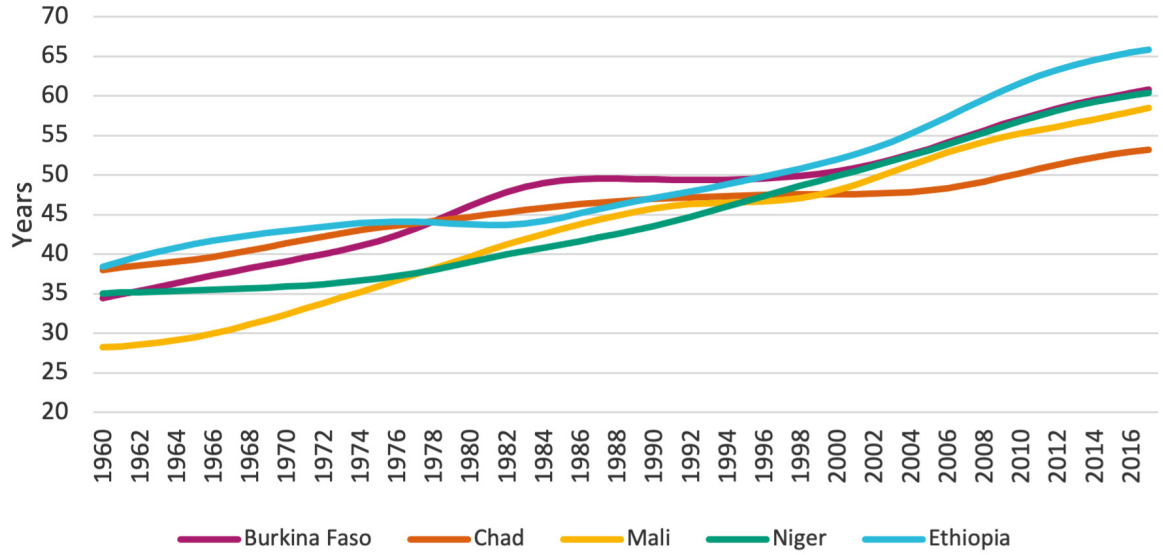
FIGURE 1 EVER-MORE FREQUENT DROUGHTS? SAHEL PRECIPITATION ANOMALIES (1950–2017)



Note: increased rainfall from 1950 to the late 1960s was followed by two decades of mainly poor rains, including catastrophic droughts; it was in this period that the narrative developed of a downward trend in rainfall and the southwards expansion of the Sahara.

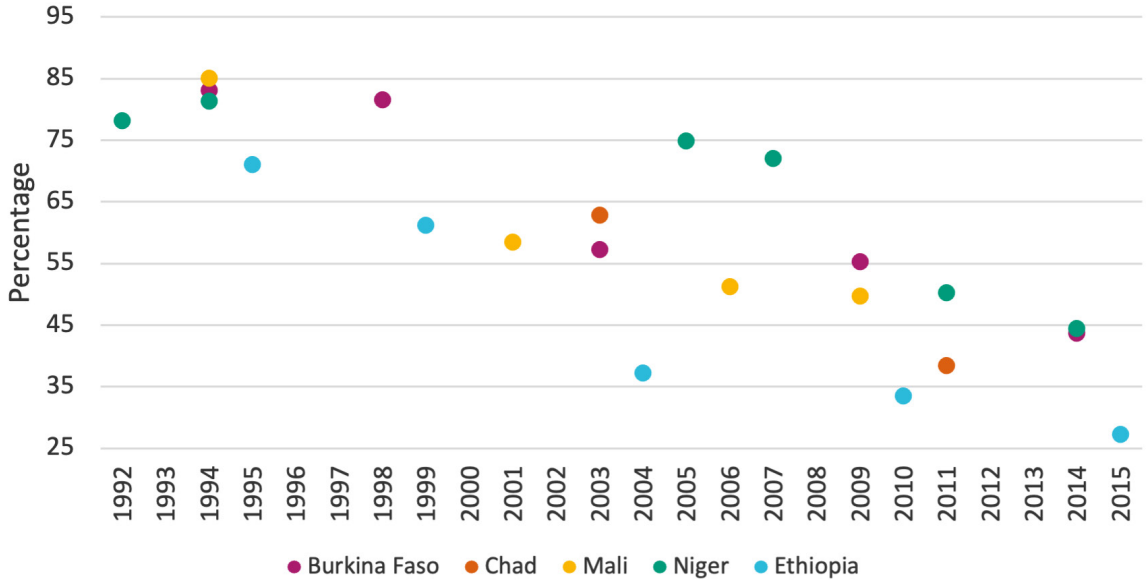
Source: JISAO, http://research.jisao.washington.edu/data/sahel/121816/.

FIGURE 2 CHANGES IN LIFE EXPECTANCY IN THE SAHEL AND ETHIOPIA (1960–2016)



Source: author, using data from https://data.worldbank.org.

FIGURE 3 CHANGES IN THE PREVALENCE OF POPULATION BELOW THE INTERNATIONAL POVERTY LINE IN THE SAHEL AND ETHIOPIA (1992–2015)



Note: the international poverty line is $1.90/day @PPP (purchasing power parity). For conversion rates to local currency units (LCUs), see https://data.worldbank.org/indicator/PA.NUS.PPP.

Source: author, using data from https://data.worldbank.org.

Data on poverty rates are not yet good enough to see detailed trends, but Figure 3 shows some progress in reducing poverty, albeit limited, providing more evidence to challenge the narrative that things are getting worse.

Data on nutrition tell a similar story (Figure 4). Stunting became more prevalent in the years after 1985,[4] rising from 44% to 55% in Niger (2006) and from 36% to 43% in Mali (2001). However, in the past decade, rates have fallen to 40% in Niger (2016), 30% in Mali (2015) and from 46% to 29% in Burkina Faso (from 1990 to 2016). Progress has been limited in Chad (see Figure 4). There are causes for worry: there has been a recent upturn for Mali, unsurprising given the recent years of conflict and turmoil; and a possible tailing-off of progress in Niger. Nonetheless, the picture in this last decade is again consistently *better* than in the previous two. Since stunting reflects food intake and health over a longer period of time than wasting, it is regarded as a key indicator of resilience (e.g. by Gubbels, 2011) – evidence then that resilience has increased in all Sahelian countries.

2.2 A narrative of vulnerability without context

Progress in each country has been non-linear, indicating the need to seek explanations for trends at the national level. For example, many expectations of progress in Chad, with the beginning of major oil revenues in 2004, did not materialise. The Government of Chad has its own analysis on why it failed to meet its poverty reduction targets, attributing this partly to the diversion of oil revenues to military spending (Republic of Chad, 2008) (see Figure 5; note the surge in spending in Chad following the beginning of oil revenues in 2004).

Given that poverty and resilience are connected, the gulf between the Government of Chad's own analysis of poverty (ibid.) and the explanations of vulnerability from resilience analysis should raise an alarm. Centre-stage in the poverty analysis were factors such as global oil prices, the national economy, politics and government spending, and conflict. Yet, all these have been almost entirely absent in discussions on *resilience*. Resilience discussions that ignore or misrepresent trends in people's lives, and do not adequately consider the most important determinants of poverty, need to be treated with caution.

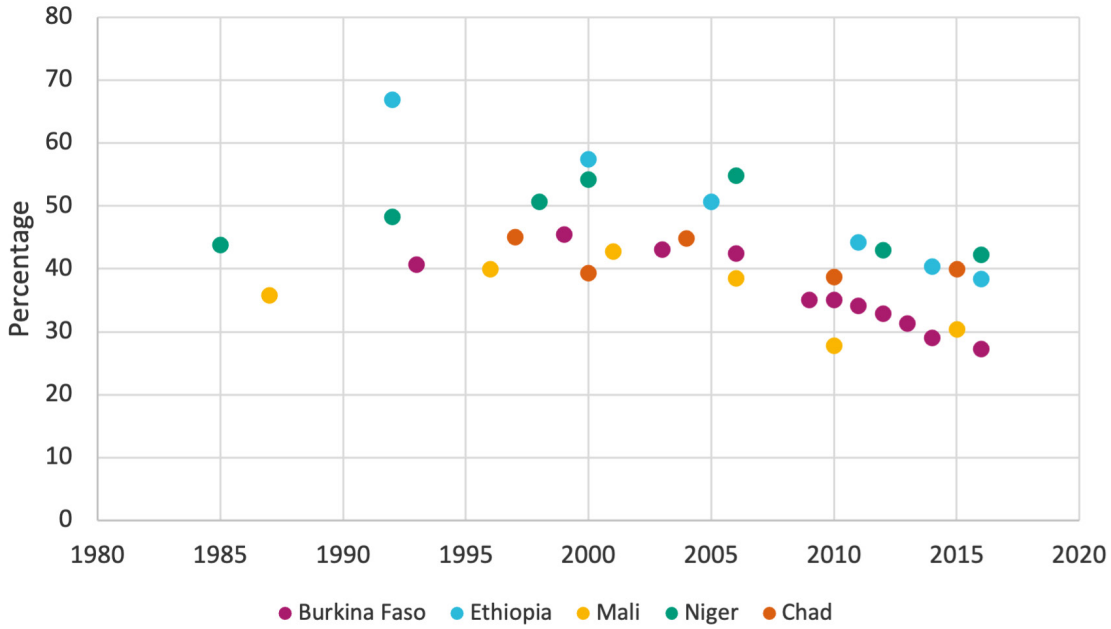
Narratives have consequences. A distorted narrative was offered as a problem analysis but has served only to fill in the space where analysis should take place. This has had two direct consequences. First, the narratives have hidden the real and complicated problems that need tackling because the narratives have offered a simple – and therefore seductive – generic problem. This has served to justify a generic solution for resilience across the whole region. Second, unreal narratives have hidden from attention possible lessons (several of which were offered to this study by various informants) about what has actually made life better or worse in the recent past. One informant related recent improvements in nutrition and life expectancy in the Sahel to an increase in investment in healthcare services; another noted the economic impact of the expansion of communications; a third informant pointed to the success of state investments in agricultural productivity.[5] These three successes shared characteristics that have been missing from most of the resilience discourse: they depended upon transformational change at scale; changes were quite specific within their own sectors (i.e. not part of multi-sectoral interventions); and national-level institutions were critical in achieving change.

The recent history of the Sahel is far from an unmitigated success, particularly regarding security and state legitimacy. But these political stories have also been strikingly absent from the standard resilience narrative in each of these countries. This is hard to explain, since so much resilience programming has indeed included elements that are related to local governance. At the same time, it has been accepted that politics and institutions are critical in shaping resilience – yet they are excluded from the problem analysis that maintains that loss of resilience is a story about worsening droughts and loss of household-level assets.

2.3 The dangers of a single, generic narrative of vulnerability

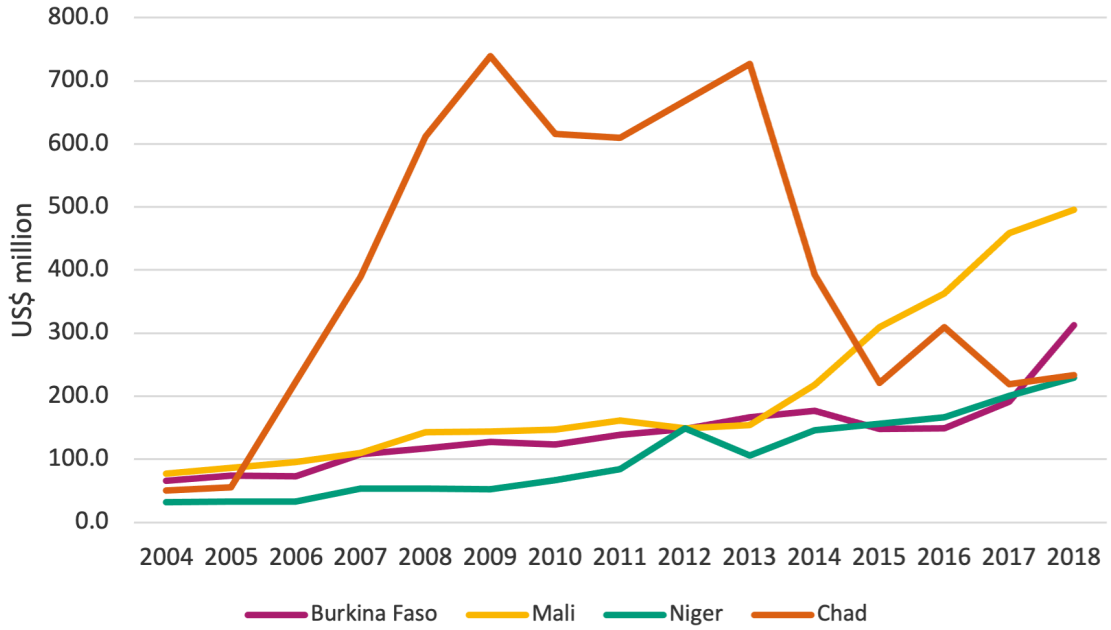
Even an unsophisticated look at the Sahel region reveals three different population groups and at least three different dynamics of vulnerability:[6]

FIGURE 4 PREVALENCE OF STUNTING IN CHILDREN UNDER THE AGE OF FIVE IN COUNTRIES IN THE SAHEL AND ETHIOPIA (1980–2016)



Source: author, using data from https://data.worldbank.org/.

FIGURE 5 ANNUAL MILITARY SPENDING IN FOUR SAHELIAN COUNTRIES (2004–2018)



Source: author, using data from https://data.worldbank.org

1. The vulnerability of those in the greenest areas is easiest to overlook. High population densities, and unequal land distribution, lead to high levels of chronic poverty and child malnutrition. People may appear less exposed to shocks, but have less ability to cope.

2. The acute vulnerability of those living in more arid areas attracts more attention. Their wealth (livestock) and income levels can be underestimated,[7] but they are highly exposed to severe shocks and often have poor access to basic services. Their main coping mechanism – mobility – remains technically sound, but is deeply threatened by political and institutional factors.

3. Populations who are physically, politically and culturally the most remote from the state may be the most at risk from breakdown in the rule of law and from conflict. (These populations may or may not overlap geographically with those in group 2 above.) Here, too, vulnerability is neither a household-level problem nor purely economic.

In this crude typology of vulnerability, resilience in the first case is similar to food security and sustainable development, or to what development economists might call 'pro-poor growth'. The focus of analysis is on permanent stresses or chronic poverty and constraints to self-development.

The second case is more about shocks and the ability to cope with drought in particular. This too is in part the vulnerability of chronic poverty. However, improved resilience here is about not just higher average annual income but also the ability to maintain income (and coping capacity) in a drought year.

While some of the underlying factors creating the third case of vulnerability may be the same as those that create economic marginalisation, the problem here is a distinct one. This vulnerability cannot be addressed simply by improving food security outcomes. Improved resilience depends on the ability of any intervention to affect social cohesion, the social contract or perceptions of state legitimacy.

The term 'resilience' is appropriate in all three cases, but the analysis behind any intervention or investment must distinguish between these different kinds of vulnerability and their causes. The discourse that everything is getting worse (but can be fixed by aid projects) is common in the aid sector, but it matters much more in the resilience sector because objectives tend to be more abstract, even vague. After all resilience is, quite properly, a vague and flexible concept. When there is a 'hard' objective (e.g. reducing stunting or increasing access to water), it is more difficult to ignore previous trends on these indicators or lessons from previous successes and failures.

'Resilience' as a concept has no inbuilt fixed measures of success. What measure of success could be appropriate across the three stories of vulnerability above? Objectives can be set in reference to specific problems and, for example, expressed in terms of food security and the ability to survive a drought (or in terms of improved trust in state institutions). Such measurements of success are context- and problem-specific and are not directly expressed in any specific resilience language. Increasingly, though, resilience is talked about as a new sector, distinct from the technical sectors that mainly shape it, such as economics, agriculture and healthcare. This resilience sector is adopting a different way of measuring success. Increasingly, both a language and measure of resilience are being generically applied through the use of abstract measurements, or through constructing composite measurements that seek to capture dimensions of resilience that can be used in any situation of vulnerability. This paper argues that such generic measures of success offer a chimera and are not meaningful measures of success at all.

BOX 1 DEFINING RESILIENCE

Although it has been argued that the lack of a common definition of 'resilience' has constrained progress (e.g. Sahel and West Africa Club/OECD, 2017), there is little reason to think this is a serious worry. Almost all the definitions in use clearly express a common core idea: how well people or institutions (and businesses) can cope with problems and how they recover when the problems stop. The different approaches that different agencies take to resilience derive from their different definitions of 'resilience', all of which stem from underlying differences in their political engagement or from the part of an agency that is driving the resilience agenda in the Sahel. This has not resulted in any substantive disagreements.

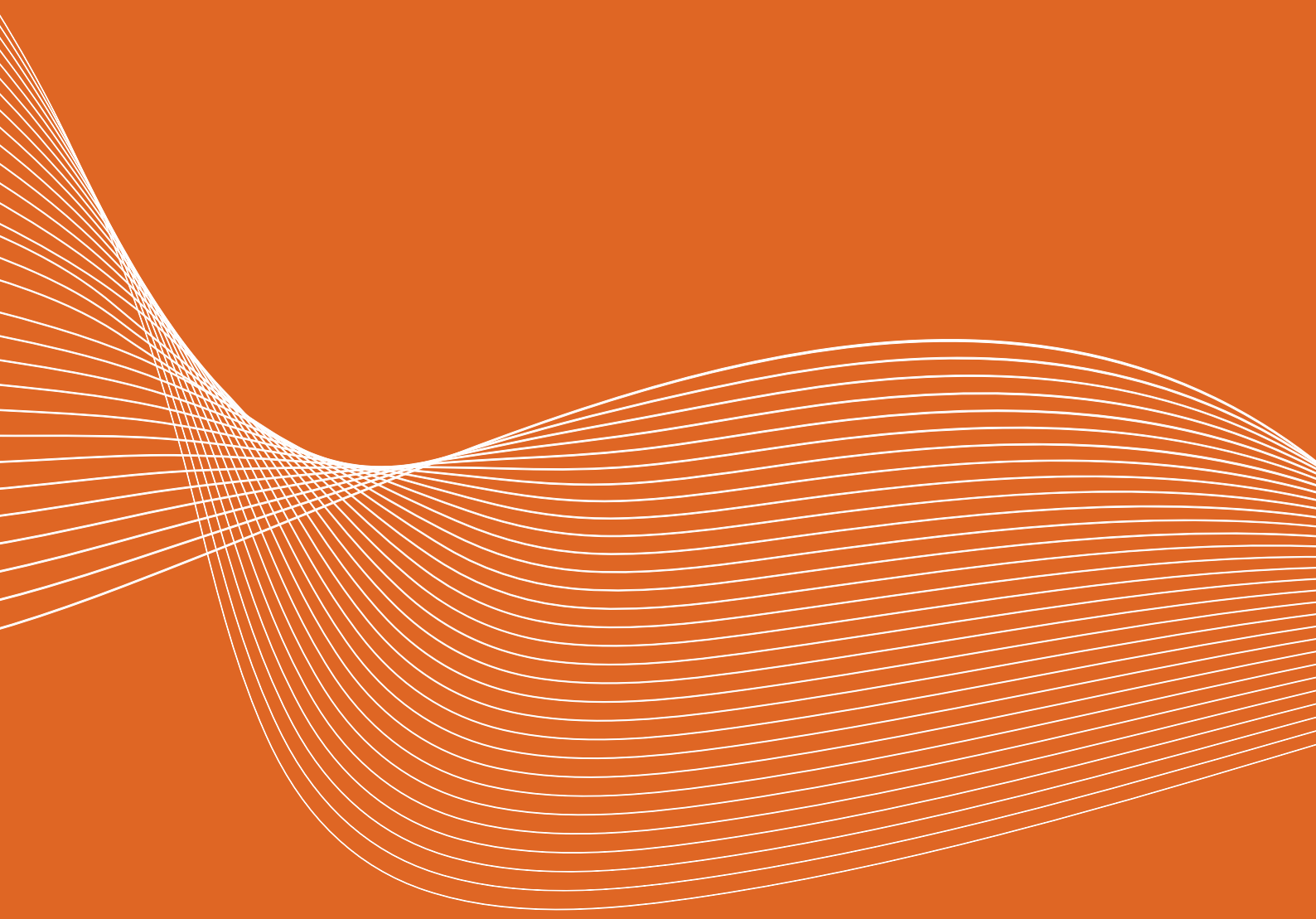
For example, West African states tend to see resilience in terms of food security. The European Union (EU) and US Agency for International Development (USAID) come from a food security or sustainable development perspective. Indeed, for the EU and the national governments that it partners in the Global Alliance for Resilience Initiative (AGIR), resilience is largely equated with zero hunger. Within this, the EU perhaps places greater emphasis on nutrition and social institutions, while USAID focuses more on markets and value chains. UN agencies have worried less about defining resilience, and have tended to attach it as a label to their normal programming where it deals with the same broad issues.

The UK Government has combined two approaches: climate change (in which resilience is often seen in terms of disaster risk reduction) and security. A focus on security is increasingly becoming a part of the French Government's thinking, too. This has not been driven by any theoretical rethinking on the concept of resilience, but is a response to the deterioration of security, the rise of a perceived threat from militant Islamic groups and the perception that this is a major threat to development progress.

Whatever definitions have been used, they have not posed an obstacle to coordination or collaboration.

SECTION 3

HOW RESILIENCE FRAMEWORKS ARE BEING USED UNHELPFULLY



Different resilience frameworks have been used in the Sahel, and some agencies do not appear to have used any specific resilience framework, at least when writing about their interventions. Despite this, programming across agencies has been similar, suggesting that if frameworks have been used, they have not played a major role in shaping the intervention design.[8]

The frameworks and conceptualisations of resilience have, though, been used in ways that have had consequences for how agencies try to support vulnerable populations. This is a problem of how the frameworks have been applied rather than a weakness of the frameworks themselves. This is discussed in Sections 4 and 5. Section 5 also suggests how resilience frameworks could be used more productively. In this section, we consider five problems:

1. obscuring issues by translating them into resilience language
2. making it all about the vulnerable
3. depoliticising marginalisation and vulnerability
4. achieving scale and replication
5. making it much harder to measure success and learn from failure.

3.1 Turning real-life problems into resilience problems

Not all programmes supporting resilience have been explicitly 'resilience programmes' or used specific resilience language. This paper is more concerned with those projects that explicitly labelled themselves as being about resilience. They have tended to pose the problems they were addressing as a resilience challenge from the beginning. This has tended to remove the ground from under the analysis, leaving it hanging in a world of abstraction. How this happens can best be seen from the example of a major resilience programme which has documented more of its background thinking (USAID, 2018). Because the problem description can be followed from its concrete roots into resilience abstraction, it illustrates how the translation into 'resilience-ese' makes it so much harder to design interventions that can help.

Its initial problem analysis identified some of the underlying causes of vulnerability that needed attention: water scarcity, high birth rates, early marriage, low literacy rates, an extended lean season, migration, lack of secure land access and a large youth population. The analysis then passed through the agency's 'principles for building resilience': community-led development, systems strengthening, inclusive targeting and collaboration for collective impact. Then it passed through its 'resilience objectives': environmental sustainability and disaster risk management, food security and nutrition, access to basic services, improved governance, and increased agency, particularly for women and youth.

Neither the principles nor the objectives seem particularly contentious, but when the analysis came out the other side, there were three transformative programme objectives:

> enhanced community leadership of local development, enhanced social capital through strengthened ties of mutual assistance among people; and enhanced capacity to learn and adapt among beneficiaries, local partners, and partner governments. (USAID, 2018: 12)

Again, there appears to be nothing contentious about these goals. The problem is that the real world has become much more distant; it is hard to see how these link to the underlying causes of vulnerability that had been identified. By moving from a specific problem analysis (detailing factors such as water scarcity, early marriage, lack of secure land access, etc.) into an abstract resilience discourse, the links between the problem, the solution and the outcome became disrupted. This matters. It becomes much more difficult, if not impossible, to design a programme with a real programme theory or theory of change (ToC), and then to monitor whether or not that programme is addressing the right problems, because key indicators are no longer related to the problem or the problem analysis.

This translation of the actual difficulties that people in the Sahel face in their actual lives into abstract concepts is surely one reason why the same programme approach and the same set of objectives are then proposed across the region as a whole. Simply put, the differences between

challenges faced by vulnerable populations in the three broad geographical areas in the Sahel have been removed from the way objectives are framed. At the national level, even more nuance has been lost. Indeed, one would even expect to need quite different approaches and strategies to address the same kind of issues in different countries (e.g. unresponsive local government, poor agricultural production or difficulties for transhumance).

3.2 Making it all about the vulnerable

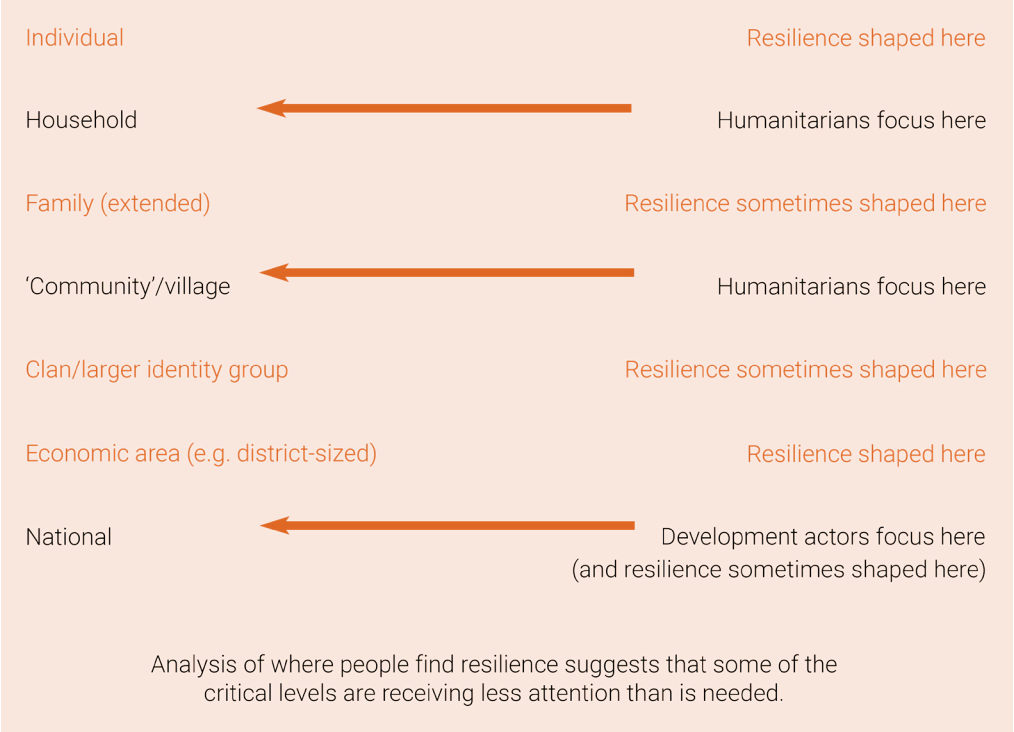
Several agencies have used a framework that sees resilience as a combination of people's ability to **anticipate** difficulties, **absorb** their impacts and **adapt** (AAA), but a fourth dimension has been added: their ability to **transform** their lives (or for systems to be transformed) so that they are also less exposed to the problem (creating the AAA-T framework).[9] Either the AAA or AAA-T frameworks would have been a useful way of analysing vulnerability, if they weren't used to *replace* other frameworks that might have drawn attention to the real-life causes of different problems that people face.

Restricting the discussion to the domain of livelihood security, had the sustainable livelihoods framework been used, for example, the analysis might have started by examining the role of wider factors at the level of the economy, institutions (e.g. markets, land administration) and politics (i.e. how investment decisions are made in local and central government) and included an analysis of how people's decisions are shaped by such institutional factors and how power shapes people's ability to use assets and resources.[10] Using the AAA or another resilience framework has instead led to a discussion of vulnerability using a (resilience) language of *capacity*. (In Section 4 it will be made clearer that the different frameworks are not seen as being in competition with each other, any more than an environmental analysis competes with a gender framework. We have good tools, but have not yet done well combining them.)

The language of capacity tends to make the vulnerable person (or community) the focus of the analysis. But once the story of *my resilience* becomes about *my capacity* to deal with life, then an 'individual blame model' rather than a 'system blame model' is already inherent.[11] The discussion draws attention to how the individual must change to become more resilient and how changes to address their community's vulnerability lie in their community. The vast majority of resilience programming takes a community focus for granted. Some of the programmes tried to include institutional and political dimensions, but they inevitably struggled when the starting point was the vulnerable community. For example, a common element of projects was to improve local governance. Typically, though, the concern of the project was limited to the relationship between the beneficiary community and the local authority (e.g. ensuring that community development plans developed with the project were somehow incorporated into local government planning).[12] There was little talk of supporting the overall functioning and decision-making of local authorities within their own context – which would have necessitated also looking at national budgetary flows and spending throughout the whole area for which a local authority is responsible, not just project communities.

The excessive focus on communities is exacerbated by the treatment of resilience as distinct from one of poverty or other development challenges. Those who work explicitly in resilience terms often come from a humanitarian approach, which typically adopts a household or community focus. There is little reason to believe that the main determinants of resilience do usually lie in the village or community. Levine et al. (2019) found a constant mismatch between the levels at which aid actors thought and operated and those levels that shaped resilience (see Figure 6). It is misleading even to think about individual or household 'assets' as being determined only at the individual or household level. Even for social capital, it has been found that resilience depends more on having strong relationships with people outside the community (e.g. in urban areas, in other countries), something that is shaped by social and economic factors that lie outside the community.[13] Building resilience by giving individuals vocational training rarely had much impact, partly because scale can never be reached, but mainly because people's ability to earn depended more on the local economy's ability to generate demand for products and services than on an individual's skills.

FIGURE 6 THE MISMATCH BETWEEN THE LEVELS THAT SHAPE RESILIENCE IN RECURRENT AND PROTRACTED CRISES AND WHERE AID AGENCIES TEND TO OPERATE



Source: Levine and Sida (2019: 21).

The economic status quo is never an independent variable that can be changed in isolation: it is always the outcome of an economic and political system. To have any usefulness, a ToC must be able to show which factors in that economic and political system are being changed – that will then result in a new status quo. To support a purely community focus, evidence would be needed that community-level changes can indeed create a transformed status quo. That evidence is not being provided by the resilience models, probably because it cannot be found. This does not imply that village-level projects are wrong or irrelevant, or that they have no place in contributing to resilience. The criticism here is not of the projects, but that they are too often seen in isolation and not more strongly linked to other interventions and policy changes working at different levels.

Again, this *matters* in the real world. If urban–rural linkages are not considered, then opportunities to help farmers will be lost; if the failure of justice systems to protect land rights are not analysed, then opportunities to help widows will be lost; if the costs of theft and informal taxes during the transhumance of pastoralists are not addressed, then more opportunities to help will be lost.[14]

Neither the causes nor solutions to these lie only at the community level.

There is one more reason why, particularly in the Sahel, resilience cannot be adequately understood at the community level. The Sahel's ecological resilience is derived from the diversity found within it. Beyond the differences between the more and less arid parts of the Sahel, rain is always distributed unevenly across space and time, and there is great variety in the types of soil and natural vegetation. This diversity is harnessed in different ways. Most obviously, pastoralists exploit it through movement and it also underlies the economic inter-dependencies across the Sahel (e.g. between livestock keepers and crop farmers). It is impossible to understand the resilience of the Sahel, whether ecologically or economically, except by taking a wide geographic view (Hiernaux et al., 2016).

Multi-scale approaches need to cover wide geographical areas and to incorporate different parts of the overall livelihood systems. Ironically, although much of the resilience discourse is phrased in terms of systems, the dominant resilience paradigm in the aid sector has made such 'systems thinking' less likely to happen.

Just as there has been an absence of analysis of urban–rural linkages in resilience programmes, there has also been a lack of discussion of the possible impacts of interventions across population groups (e.g. of projects in farming communities on pastoralists). Supporting changes in land-use planning may be very helpful, but consideration is needed of how it might affect historic land rights of pastoralists, and of how investment in livestock-keeping for crop farmers might affect inter-dependency and competition.

3.3 De-politicising marginalisation and vulnerability

In the current portfolio of resilience programmes in the Sahel, the lack of an institutional or political analysis at the documentation level is probably the biggest weakness. It is possible that such analysis is conducted but not documented, though this would still make it harder to monitor the assumptions behind the programmes and make learning about their replicability almost impossible. This is particularly disappointing because for a long time resilience has been understood as, above all, the creation of an economic and political system.[15] Where crop varieties are insufficiently drought resistant, this may appear as a technical issue for farmers, but that is a surface-level problem. The underlying problem is deeper and could come from a myriad of factors, some of which range from a government's political will to see marginalised areas develop to the incentives or system of rewards in agricultural research, access to telecommunications and literacy levels. 'Solving' the problem relies on making changes in at least some of these deeper-level factors, not in the delivery of a technical 'solution', such as new seeds.[16] Although the resilience discourse often uses the language of systems, ironically its use has constrained systems thinking, which would, in the example of drought-resistant seeds, need to look at how knowledge is being generated and how it flows in order to ensure a continuing supply of new technologies being genuinely accessible to all those who could benefit from them.

It is positive to see how many resilience projects link with local government but even this has too often been de-politicised and turned into a technical exercise. It is naïve to believe that citizen–state relations can be changed by a transformation of individual local governments after they have experienced the benefits of community participation in local government planning. The resilience label appears to be distracting, taking attention away from the so-called bread and butter of good problem analysis and intervention design.

3.4 Scale and replication

The resilience projects studied have quantified their intended impact by their number of intended beneficiaries, which was arrived at by adding together the intended beneficiary numbers of each community – but each treated in isolation. This ignores the issue of scale and replication. An intervention that delivers benefits to one community may not deliver benefits to all communities. Markets are finite in terms of both what communities can produce and the resources that communities need to engage in production. An obvious example is investment in irrigation: even if investment capital were limitless, there is not enough groundwater to irrigate the whole of the Sahel. Irrigation in one place can have negative impacts on water availability in another.[17] Again, this cannot be analysed by thinking in terms of the capacities of vulnerable people, but rather it needs an analysis that looks at the problem on a much larger scale.

Also, if attention to the beneficiary community leads to insufficient consideration of the question of how positive change can be replicable, then this, too, is likely to reduce impact. It seems obvious that investment can only achieve impact at scale if changes spread far beyond the area of direct implementation. To achieve this, it is necessary to consider the factors that can constrain or enable replication and at scale. Such consideration has been largely missing in the documentation of resilience sector programmes because there is no place in resilience frameworks where thinking about it is encouraged.

3.5 Making it harder to measure success and learn from failure

This study did not set out to evaluate individual projects, but it did try to examine how much progress was being made collectively and which kinds of investment in resilience were having most impact, in line with the questions set out in Section 1. Unfortunately, very little evidence was available

from monitoring and evaluation (M&E) reports that would allow any assessment of progress to be made. Common weaknesses in aid impact monitoring have been exacerbated because **what would count as success has not been described.** This follows partly from the abstraction of the programme discourse from real-world problems (see Section 3.1) and fails on both programmatic and strategic levels.

It should be surprising that all resilience project documents studied for this paper did not describe what the lives of their beneficiaries would be like if the projects succeeded. The M&E frameworks of almost every single project restricted its description of outputs and objectives – and its indicators for assessing progress towards them – to a quantification of the number of people who would benefit. The benefits themselves have been given only in terms such as 'people being more resilient', without specifying what exactly this means. Neither a threshold of resilience nor one of food security has been described: it is not stated whether it is expected that the project beneficiaries should reach any threshold or if they will merely step closer to it.

A notable exception is a baseline survey report from Reid and Kumalah (2016) that explicitly presents 'expected impacts' after five years:

> 375,000 fewer people will require humanitarian assistance during a drought of 2011 magnitude; Global Acute Malnutrition (GAM) rates reduced from near 15% to below 10% in target communes; Depth of poverty among poor households reduced by 20% in targeted communes (It has to move from 22% to less than 17.5%); Prevalence of severely/moderately hungry households reduced by 20% in targeted communes (It has to move from 28% to less than 22.5%). (ibid.: 4)

However, this figure does not appear again in any other document that could be found from the programme or its related projects. The results framework followed the standard practice of using 'improved livelihoods' or 'enhanced governance' for expected outputs and outcomes, but, at the project level, this vision disappears completely. Project documentation did not show how any of the community-level activities would contribute to this target. There was no explanation in any document of where the target had even come from or on which analysis it was based.

The EU was also better than many others in setting out some quantified targets for its support to the Global Alliance for Resilience Initiative (AGIR), such as a reduction of at least 50% in people seeking humanitarian aid in high-risk zones, and a GAM prevalence below 5% for children under the age of five.[18] However, again, it is not clear where these quantified targets are coming from and project documents in the different countries and from the various funding streams do not mention these targets, speaking only vaguely of improving the situation. When there is no clear analysis that sets out the assumptions behind the targets and how interventions will lead to this outcome, it becomes much more difficult to think in terms of a useful ToC, and it is almost impossible to generate useful learning from M&E.

More broadly, it has not been possible to find any document from the aid sector that describes what a resilient Sahel might look like, beyond the rare occasion where the amount of how many people will be 'more resilient' is specified. If aid agencies are to contribute to a long-term process of transforming the Sahel, they have to have a direction of where the Sahel is going. Such a discussion would have to touch upon questions about the kind of economies that would have to emerge: the nature and role of agriculture in those economies; the role of irrigation; what would be the minimum landholdings required for farming with different technologies; likely future crop-price levels; and where and who would be able to farm this minimum holding. Even if the topic were limited to the future of rural areas in a resilient Sahel, discussions would still need to include the scale of urbanisation, because of the close linkages between rural and urban economies.

A realistic vision of the role that government is expected to play in this process is also needed. Political will and state investment will be critical, but will not always be found efficiently in every country.[19] What vision is still possible and appropriate in countries where the state is a less than ideal agent for the development of its more vulnerable and marginalised populations? Where might some semi-resilience come from, and what is the role of international actors in helping make that happen? Some of these discussions are undoubtedly happening inside donor governments, and it is understandable that some of the analysis will be too sensitive to share publicly. That said, there are few signs that resilience programming has been designed on the basis of any such strategic analysis, with little recognition of the enormous difficulties involved in finding a path forwards that has a reasonable chance of success.

It is not that surprising that the three sets of critical questions set out in Section 1 cannot even begin to be answered. M&E has struggled to generate useful learning, because practitioners, despite their best efforts, have been given a different task.

There are other reasons why evaluations are generating limited learning about impact more widely in the aid sector. Much of M&E is geared towards serving upward accountability and the aid bureaucracy, and often focuses on the process of implementation. Impact is almost always restricted to assessing outcomes for direct beneficiaries, and only within the timeframe of project activities – which in the case of resilience objectives make findings largely meaningless.

This paper does not cover that ground but, rather, looks only at how the resilience discourse has placed yet one more barrier in the way of learning from experience about what should be done next. The translation of the concrete expression of what needs to change into an abstract language of resilience has tended to replace useful ToCs or programme theories, rather than helping to identify them, as discussed earlier. When programme outputs, outcomes and goals are expressed in terms of improving people's adaptive capacities or resilience, M&E also becomes much more challenging. Reporting back in anything except these same terms is difficult because these are the terms in which projects have been designed and have set up the boxes for ticking. This is all divorced from any question of whether the sum of achievements enables, for example, households to buy healthy food for their children in a drought year.

If the ToC and results framework were created in real-world terms, it would allow M&E experts to see the causal models linking activities to clearly defined end states, which would then allow them to find the right evidence to test those models and give them a framework for drawing rigorous conclusions – and useful lessons. Assessments that use abstract resilience indicators do not have rigour imposed upon them. Even if the data collection and statistical analysis are rigorous, the conclusions drawn do not necessarily provide learning. For example, what is one supposed to learn from the following evaluation of a BRACED project, beyond a vague positive feeling that something has at least worked?

> When controlling for such characteristics through the use of specific models, analysis still shows that the [redacted] project increases the probability of households engaging in adaptive/transformative strategies for 7 out of the 10 shock–response combinations that were tested. This increase is statistically significant in 6 out of these 7 combinations. (BRACED project evaluation, 2020)

It is hard not to have sympathy with the evaluators, tasked with drawing abstract lessons by evaluating a wide range of projects in different countries, each attempting to achieve different things, with different target groups. The usefulness of such an enterprise is open to question. In the Sahel, abstract composite capacities, such as adaptive or transformative capacity, have replaced single composite resilience indicators to some degree. That would be welcome if they were more informative than resilience coefficients, and if they were not just as susceptible to finding project successes by introducing circular reasoning. A project can easily 'prove' its success in building resilience through circular reasoning if its design is based on the measurement indicators upon which proof is established. For example, if I know that one of the components that resilience is measured by includes people's proximity to a bus stop (used as an indicator for access to markets and services

by the joint UN resilience programming in Somalia (FAO-UNICEF-WFP, 2014)), then I can guarantee that my project will make people 'objectively' more resilient, simply by building more bus stops – regardless of whether or not buses are running, whether or not people can afford to use them, whether or not they have their own cars, or whether or not they have anywhere to go.[20]

Apart from this theoretical critique, there is a practical disadvantage to resilience evaluation (i.e. evaluation using abstract resilience indicators rather than a normal programme-theory approach). The pool of available evaluators suddenly becomes small and highly susceptible to an easy group-think consensus – one which is so abstract that it cannot easily be challenged by reality checks. Further, it favours resilience expertise (i.e. the ability to deal in resilience concepts) rather than expertise in the subject matter and the specific place, country or region. The dangers of generically expressing the resilience challenge across a whole region has been previously discussed in this paper. Anything that further reduces the value placed on contextual expertise is to be regretted.

BOX 2 ON THE MANY DIMENSIONS OF RESILIENCE – LESSONS OF LOVE?

There are many dimensions of resilience. It is commonly argued that, to build resilience, many dimensions need to be worked on holistically and at the same time; and that the progress of these collective efforts can be measured by combining the different dimensions of resilience into a single composite resilience score.

But, how much do the different dimensions of resilience have to do with each other? Is there necessarily a connection between different 'resilience-building' efforts, even when they are aimed at the same people? Does it make any sense at all to try and combine them into a single score? A little reflection on love may shed light on this question.

There are many different kinds of love: one can feel love for a spouse, one's children, one's pet and one's god. And, there are those third parties working to strengthen each of these different relations, explicitly using the language of love: couples therapists, religious leaders and various charities providing support to vulnerable people through pets. How far is it useful, though, for these organisations to think of themselves as part of a single, common effort, aimed at building people's love capacities? And how useful would it be to add up how often couples kiss, how often they pray, how often they read a bedtime story to their children and how often they stroke their dogs, and to call this number their composite love score?

SECTION 4

CONCLUSIONS

There are two significant problems with the international support that has been given to resilience-building in the Sahel: (1) most of the actors that need to be contributing to thinking about resilience actually work outside the resilience silo; and (2) the way that resilience is being analysed does not enable a coherent analysis of resilience, poverty and food security (i.e. the ability to cope in crisis).

The concept of resilience should help break down silos. It should make clear that, for example, food security is not a humanitarian problem but, rather, the language used by humanitarians to discuss the acute symptoms of chronic poverty, vulnerability and economic underdevelopment. Yet resilience has become a new sector, a new silo, distinct from both anti-poverty efforts and the humanitarian sector. This is deeply unhelpful. Resilience should be a common language for talking about the more extreme end of chronic underdevelopment.

There are no good arguments, neither technical nor logical, for separating discussions of food security, poverty and resilience (i.e. the livelihood dimensions of resilience). Separation constrains the collective ability to understand how to help – including understanding whether and how far the efforts of each individual sector contribute to progress. Serious progress on resilience relies on a collaborative endeavour, from those working on economic development, market development, social protection, agricultural and urban development, climate change, multidimensional poverty issues and others.

It is not currently possible to understand the contribution of resilience investments or resilience frameworks in achieving food security or reducing poverty. Moreover, the resilience discourse is not currently helping with the analysis of what needs to be done to: (1) achieve better programming, or (2) understand how interventions play out in practice and what their impacts are.

It is therefore not possible to answer many of the questions to which governments, civil society and their partners need answers. These include questions about what is working, what provides best value for money, and how to integrate the contribution of resilience programming with other planning (e.g. humanitarian assistance). The inability to answer these straightforward questions is worrying and should be addressed. Section 5 offers some constructive suggestions.

SECTION 5

A MORE USEFUL WAY OF THINKING ABOUT RESILIENCE IN THE SAHEL

Resilience is the business of people outside the resilience sector

Any agency working on a poverty agenda is inherently also working on a resilience agenda, whether or not this label is explicitly used. The first task is to ensure a more collaborative conversation between those working on similar resilience challenges from different perspectives and different disciplines. More specifically, this means that people working with longer-term development frameworks and tools need to take the majority of the responsibility for shaping resilience analysis, rather than having it conducted in the humanitarian sector or another separate resilience sector.

Don't start by reaching for the resilience framework

At any one time in the Sahel, people's lives and livelihoods in different countries are under threat from many directions, and resilience frameworks are hardly needed to identify these challenges. Making progress on any of the challenges (e.g. the breakdown of the social contract, extreme gender inequality, demographic challenges or widespread food insecurity) means helping people become more resilient. Framing these problems *without* using the word resilience helps to avoid the temptation of seeing these as similar challenges, or that progress on any one challenge is part of progress on any other.

Resilience frameworks can help in analysing each and every one of these challenges; however, they are not designed for prioritising these challenges among themselves. That is always a *political* judgement, not a technical one.

Country-level analysis and decision-making

Whatever problem is being addressed, it must first be put into a national context. There are often regional dimensions to the issues, but that does not imply the adoption of one single resilience strategy across all countries in the Sahel. For example, support to regional institutions should be derived from a country-level analysis showing that strengthening regional institutions can deliver specific change at the national and local levels.

Each agency and individual should always try to root conversations, meetings and analyses about resilience more strongly in country-level realities. Individuals and agencies can also influence how policy is framed by constantly bringing the question of realistic future scenarios into discussions about a resilient Sahel. Such scenarios are also an opportunity to bring more actors to the table, as they could include projections about the economy, demographics and climate, for example.

Bringing a resilience analysis to the challenges

Resilience frameworks have their role to play in analysing specific challenges, not a vague resilience deficit. It is best to prevent all arguments about which frameworks should be used: *every* framework (across disciplines) can help shed light on problems. Agencies should move away from thinking in terms of their corporate, approved frameworks and instead embrace the use of anything that can generate more insights. If problems are discussed in concrete terms (i.e. for a particular population in a particular area), then the idea that different frameworks compete with each other will never arise because each analytical tool will have its opportunity to make its own contribution.

Whatever challenge is being considered – whether it is constraints on pastoralist mobility, weaknesses in social protection institutions or the difficulty for farmers in marketing their produce for a good price – it is always useful to ask questions about how well the various stakeholders can anticipate what is likely to happen next, how well they will be able to deal with problems, and what opportunities and challenges they will face in adapting to longer-term change. Similarly, it will always be relevant to have a tool that draws attention to the interplay between the local economic infrastructure, how the rule of law operates, the constraints posed by household-level assets of different kinds, and how being born male or female affects one's opportunities and outcomes. As ever, the role of conceptual frameworks is not to say what is most important, but to ensure that all the right questions are being asked.

Setting objectives and the means to achieve them: choosing ways of thinking at the right time

Specific targets for success can always be contested, and setting them is not a precise endeavour. Nonetheless, there is no justification for the current situation. Much investment is needed in improving the detail of the documented ToCs behind programmes. In certain areas, describing 'success' will always remain a challenge (especially in interventions relating to insecurity, state fragility and social cohesion). Still, in other areas, more description of what would constitute success is

needed. This is not a matter to which many of the resilience frameworks can contribute much. For example, the AAA framework can draw attention to where change is needed, but it cannot help in analysing how best to achieve it or in translating any resulting changes into wider outcomes (e.g. reduced poverty or improved food security and nutrition).

Analysing resilience challenges needs to go beyond resilience analysis. Strong political or institutional analysis will show what might be achieved by improving state services; the expertise of agricultural economists will show the impacts of changes in markets or probable changes in prices as a result of innovations in production. A household-level analysis will then be needed to see what outcomes might impact, for example, one's ability to cope in a drought. This paper takes for granted the long-standing critique that too many development interventions are thought of as a simple unrolling of a linear process leading to predetermined outcomes via a pre-identified causal chain. The fuzziness of the concept of resilience makes it even more important to know how interventions play out in real life in order to adapt them. That process will be better served if discussions are diplomatically translated out of resilience terminology into terms that describe specific outcomes and give attention to one single challenge at a time.

It is highly likely that a realistic discussion, which incorporates technical details from many disciplines, will lead to targets that are much lower than those often proposed, with much higher costs and much longer timeframes. The level of palatability of the conclusions derived from these discussions is likely to be inversely proportional to their realism, and may indeed be a useful indicator of how realistic and useful they are.

Think scale, think at different levels

The issue of scale is missing in almost every document that discusses resilience-building in the Sahel, yet it should be brought up at every opportunity. Aid cannot deliver resilience to each and every citizen of Sahelian countries. Interventions must combine changes at scale, and clear and feasible mechanisms for replication without further external support. Appreciating this should encourage the recognition that most change in the Sahel has not and will not come from external interventions but, rather, from the existing ability that people have to take advantage of new opportunities. And, the ways in which they do so should be the key source of ideas for aid interventions: identifying what constrains people, businesses and government departments from copying successful examples is probably the most useful resilience analysis that can be undertaken at this time. Also, thinking on a geographic scale means considering relations between different population groups, rather than treating each one in isolation.

BOX 3 A NOTE OF REALISM

In Niger and in Chad, total ODA in both 2015 and 2016 was around $40 per person per year. To put this figure into perspective, *in a non-drought year*, losses from all risks to the herds of pastoralists in the Sahel during transhumance was around $5,000 per household.

Notes: losses were quantified as 10 tropical livestock units per household, or around 14 head of cattle, by Thébaud (2017). The calculations of the value of losses are the author's own, using data on the value of livestock from Badolo (2017). Prices vary from market to market and from year to year, so the estimate of the value of losses is for indicative purposes only.

The conventional wisdom that resilience is best built by multi-sectoral interventions at the community level should be challenged. Any single change probably needs several, quite different interventions targeted at different levels at the same time and in coordination (e.g. individual, community, local government and national policy). It would be far better to support several interventions in order to successfully address one single constraint in one sector than it would be to try to build many different capacities at the community level in order to tick as many resilience boxes as possible.

Lesson-learning and M&E

The place for resilience frameworks is in analysing problems and looking for potential solutions or mitigating measures. Resilience frameworks will not help in learning whether or not the interventions work in practice (and how, for whom, in which circumstances, etc.). That has to be done in reference to what is being attempted. For example, if the anticipatory capacity of farmers to oncoming droughts was poor because they were not receiving accurate weather forecasts, the country's national meteorological serviceability to translate forecasts into simple messaging may need strengthening.

The test to see whether or not such a project is successful is, for example, whether or not farmers are able to plant drought-resistant crops following drought forecasts and whether or not their yields are better as a result. Project monitoring must be based on the causal chain from the weather-forecasting skill to farmers' adoption of mitigating behaviour. It is almost inevitable that at least one of the links in this chain will not work first time, and effective monitoring allows this to be remedied. Resilience frameworks do not help here because specific lessons are needed – for example, about farmers' trust in weather forecasts, and whether drought-resistant seeds are wanted and affordable. These specific questions will be obscured if the framework for analysis is divorced from the programme theory and instead focuses on generic anticipatory capacities. Understanding how much change can be brought about will progressively grow as more and more interventions are evaluated against concrete impact objectives.

Resilience, like sustainability, is an inherently forward-looking concept – how will people be able to cope with future problems? Proper evidence of success will be revealed over only a longer period of time. Lesson-learning in the aid sector is almost entirely confined to the timeframe of the interventions themselves. This problem is not specific to resilience-building, and it would be hugely valuable to invest more in evaluating the impact of interventions in the medium term, that is some years after activities have ceased.

BOX 4 RECOMMENDATIONS

1. **Act as a catalyst or facilitator for collaborative analysis among actors working on resilience.** Most of the actors working on resilience may never think of themselves as working in the resilience sector. Discussions need to incorporate the perspectives and knowledge of different working communities, and a common language is needed for this. Wherever actors may operate, all those working on poverty should be encouraged to be part of the resilience agenda.

2. **Act as a catalyst or facilitator for real-world analysis among actors working on resilience**. For analysis to be useful, it should focus on a specific challenge in the real world rather than on something abstract on a 'population whose resilience needs building'. There are many possible starting points, such as: the difficulty of accessing sufficient food for certain populations in times of drought, insufficient pro-poor growth, and gender inequality. Similarly, the underlying factors behind these challenges need to be specific (e.g. constraints to pastoral mobility or low crop yields). In every forum possible, everyone – wherever they work – should strive to: (1) ensure that the specific underlying factors are the focus of discussions; and (2) re-focus abstract discussions on generic resilience back to concrete problems faced by real people.

3. **Act as a catalyst and facilitator for stronger ToCs.** Learning from the success of ongoing interventions depends on having strong ToCs that detail how concrete and quantifiable improvements in people's lives will happen. Theoretical frameworks (including resilience frameworks) can help with the analysis of how change happens. However, to do this, ToC descriptions need to capture real-life changes that can be monitored, and such changes must make sense to people without reference to any theoretical framework. Everyone – again, wherever they work – should try to ensure that these standards are met by all the interventions on which they work. Also, people should use their interactions with other agencies to stimulate them to improve their own ToCs.

4. **Use influence with governments and in the aid sector to make resilience analysis more realistic.** The degree of investment needed in the Sahel to achieve secure and sustainable escapes from poverty is far greater than any current investment. Everyone – again, wherever they work – should try to make discussions about achieving resilience more realistic and avoid basing any programme planning on overly optimistic claims. People should challenge proposals making improbable promises on resilience, and they should champion better appreciation of the scale of the resilience challenge in their interactions with others.

ENDNOTES

1 The notion of a 'development actor' is as problematic as the notion of 'development', and perhaps is a term that should usually be avoided. Here, however, it is used in the same casual way that aid actors use it: to refer to those who support longer-term change, as opposed to immediate relief, which is the main objective of humanitarian actors. In this paper, the label 'humanitarian' can apply to state institutions when they respond to immediate needs caused by crisis.

2 This paper mainly uses evidence from Niger, Burkina Faso, Mali and Chad, but also considers both the Sahelian (lower rainfall) and Sudanese (higher rainfall) zones in these countries.

3 Although beyond the scope of this paper, the story of desertification can also be challenged. Many argue that the Sahel was greening even before this decade, e.g. Hiernaux et al. (2016) and Prince et al. (2007).

4 Perhaps this is reflective of the decade of poor rains?

5 However, a fourth informant felt that data on increased food productivity may also be an artefact of politicised data collection.

6 This breakdown is illustrative only. It is too generic to be offered as a problem analysis.

7 This is partly because income is usually measured only as a flow of money and so reflects ongoing consumption. Animal reproduction, adding to herd size, should properly be considered as income – as if money were earned and immediately used to 'buy' savings in the form of livestock.

8 In the case of the Building Resilience and Adaptation to Climate Extremes and Disasters programme (BRACED), which was the main resilience programme of the UK's former Department for International Development (now the Foreign, Commonwealth and Development Office) – the resilience analytical framework used for M&E was developed by the agency responsible for knowledge management *after* operational non-governmental organisations had already designed their interventions.

9 For example, irrigation could be transformational if it meant that a farmer were no longer exposed to the problem of a rain failure.

10 These would all be part of the box familiarly known as 'PIPs' (policies, institutions and processes) that always sits between the household's access to assets and its livelihood outcomes.

11 Of course the distinction between individual and system blame models does not imply moral responsibility or blame for failure.

12 The language of 'beneficiaries' is well-recognised as problematic, and should usually be avoided. After consideration, it is maintained in this report, because it is a study of the discourse of aid.

13 See, for example, Maxwell and Majid's (2016) explanation of why some communities suffered most in the 2011 famine in Somalia.

14 Thébaud (2017) found that nearly half of families suffered livestock theft during their movements in the Sahel.

15 For example, see Scoones (1998).

16 This approach is actually the opposite of resilience; it would make farmers vulnerable to any change in market conditions, the weather or any genetic 'drift' of the variety itself.

17 For an example from Ethiopia, see Levine et al. (2019: 30).

18 See https://ec.europa.eu/echo/what/humanitarian-aid/resilience/sahel-agir_en for more information; although called indicators, they are in fact targets.

19 For example, state revenues being diverted to military expenditure in Chad, as previously discussed.

20 There is, of course, no suggestion that the joint UN resilience programme in Somalia did go round building bus stops for no reason except to increase people's resilience scores!

REFERENCES

Badolo, F. (2017) *Monitoring of market prices of agricultural products in Bougouni and Koutiala, Mali*. Nigeria: IITA.

FAO-UNICEF-WFP (2014) *Household resilience in Dolow, Somalia. Baseline analysis for impact evaluation of FAO-UNICEF-WFP Resilience Strategy*. Rome: FAO and WFP; New York: UNICEF.

Gubbels, P. (2011) *Escaping the Hunger Cycle: Pathways to Resilience in the Sahel*. London: Sahel Working Group.

Hiernaux, P., Dardel, C., Kergoat, L. et al. (2016) 'Desertification, adaptation and resilience in the Sahel: lessons from long term monitoring of agro-ecosystems' in R. Behnke and M. Mortimore (eds) *The end of desertification? Disputing environmental change in the drylands*. Berlin, Heidelberg: Springer.

Karlson, M. (2015) *Remote sensing of woodland structure and composition in the Sudano-Sahelian zone – application of WorldView-2 and Landsat 8*. Sweden: Linkoping University.

Levine, S. and Sida, L. (2019) *A thematic evaluation of multi-year humanitarian funding*. London: ODI.

Levine, S., Kusnierek, A. and Sida, L. (2019) *Early response and resilience investments: the case of drought in eastern Ethiopia in 2015–16*. London: ODI.

Maxwell, D. and Majid, N. (2016) *Famine in Somalia: competing imperatives, collective failures, 2011–12*. Oxford: Oxford University Press.

Prince, S., Wessels, K., Tucker, C. and Nicholson, S. (2007) 'Desertification in the Sahel: a reinterpretation of a reinterpretation' *Global Change Biology* 13: 1308–1313.

Reid, S. and Kumalah, L. (2016) *Sahel Resilience Learning Project (SAREL): RISE baseline survey report*. Washington DC: The Mitchell Group, Inc., USAID.

Republic of Chad (2008) *Poverty reduction and growth strategy paper NPRS2: 2008–2011*. Washington DC: IMF.

Sahel and West Africa Club/OECD (2017) *Working together for regional integration*. Paris: SWAC-OECD.

Scoones, I. (1998) *Sustainable rural livelihoods. a framework for analysis*. IDS Working Paper 72. Brighton: Institute of Development Studies.

Thébaud, B. (2017) P*astoral and agropastoral resilience in the Sahel: portrait of the 2014–2015 and 2015–2016 transhumance*. Dakar: Nordic Consulting Group, ISRA-BAM and CIRAD.

USAID – United States Agency for International Development (2018) *Resilience in the Sahel Enhanced (RISE) II technical approach working paper*. Burkina Faso, Chad, Mauritania, Niger, Sahel Regional Office: USAID.

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Cover: Montage and photo by S. Levine

Funded by

Fund manager

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.