



Summative Evaluation Report

A Multi-Year Thematic Evaluation of DFID's Multi-Year Humanitarian Funding Approach in Sudan

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Front cover photographer: Khalid Abdelsalam

Disclaimer

The contents and conclusions of this evaluation report reflect strictly the opinion of the authors and in no way those of DFID or its partners.

Executive summary

Introduction

In early 2014, DFID commissioned Valid Evaluations to carry out a thematic evaluation of its Multi-Year Humanitarian Funding (MYHF) approach in Ethiopia, the Democratic Republic of Congo (DRC), Sudan and Pakistan. This forms a part of the Humanitarian Innovation and Evidence Programme (HIEP) and is one of a number of studies into new or emerging humanitarian approaches. This report summarises the findings for Sudan and is one of four summative country reports. A final synthesis report will draw together the overall findings of the evaluation.

The evaluation was a longitudinal study, with substantive research taking place between 2015 and 2017, set out to answer three questions focusing on resilience, contingency funding and early response, and value for money in the context of multi-year funding.

The evaluation used exploratory research techniques, allowing an understanding of the factors that shape how different people cope with shocks and stresses. An additional study looking at the cost of ill health was then commissioned.

Primary research took place in five villages in West Darfur and ten in the Beja villages of Kassala. The states were chosen because they were in receipt of DFID MYHF and are subject to different shocks and stresses. The conflict in Darfur attracted international attention with its brutality; Kassala has experienced significant climatic change, driving social change amongst a set of highly traditional ethnic groups. In places it was also caught up in the long-running civil conflict with the South.

The evaluation team conducted 259 household interviews and 36 focus group discussions over the course of two years, across the 15 villages studied. During this time there was drought and flooding in both Darfur and Kassala as well as ongoing low-level conflict in Darfur. A separate survey with a sample of 331 households was conducted to look at the cost to households of ill health.

Findings

Sudan has been in the humanitarian appeals system since its inception in 1992. Since that year the humanitarian system has raised and spent over \$21bn in the country. That trend has continued since the independence of South Sudan in 2011, with over \$1bn raised.

The majority of humanitarian resources have been spent on an annual basis. In Sudan, perhaps more than any other place, the fiction of humanitarian aid as emergency relief prevails. Crises endure over generations, but the 'fix' is assumed to be an annual affair. Worse still, the size and complexity of the country means that the appeal takes most of the year to construct (via a consensual system). It is a never-ending system of short-termism.

The reasons for the engagement of the humanitarian system in Sudan have changed over the years but have always been inherently political. Sudan has been out of favour with the West for decades, and this has led to sanctions and a dearth of official development flows. In its place, humanitarian aid has substituted as a method of political engagement by another name.

There are of course periodic, genuine, humanitarian emergencies. The 1984 famine was catastrophic in Sudan; less than Ethiopia but still deadly. The 1973 famine was worse. The 1998 famine in South Sudan led to mass mortality and displacement. In recent times the Darfur conflict and ethnic oppression led to immediate relief needs, as well as longer-term protective care. Throughout that

time there have been conflicts on the periphery of the country of various hues, with the war against the South until its cessation in 2011 being the most notable.

But the short-term mindset of official humanitarianism leads to perverse incentives and thoughtless approaches. In Darfur, the city of Nyala has seen its population doubled on the back of conflict-related displacement. It is now the second or third largest city in Sudan. Various studies warn that the aquifer supporting the city has been dangerously exploited as a result of thoughtless emergency water schemes, and over ten years on from the start of the conflict, the international humanitarian system is still aiding 'IDPs', with little evidence of proactive schemes to integrate these populations into the urban economy.

Against such a backdrop the idea of multi-year humanitarian financing is highly overdue. DFID is to be commended for dipping its toes in this difficult and contested water. But the efforts recorded for this evaluation are tentative. DFID funded two medium-sized multi-year programmes, although of a very limited duration (more or less for two years), one of which – the Joint Resilience Programme (JRP) – was closed after it had only really just started. The other, quite conventional, programme – in Darfur – focused on agriculture, primarily knowledge transfer and behaviour change. There was also an investment in evidence generation which was welcome and to an extent new, but the uptake pathways for the evidence generated are unclear.

In both areas studied for this evaluation, evidence demonstrates that the lives of households and communities are both changing rapidly, and highly constrained by acute poverty and lack of options. Climate change is a major factor in the lives of people earning their living from rainfed agriculture and livestock herding. Both the meteorological data and the household interviews demonstrate increased weather unpredictability (and heating) in the last two decades. Land tenure is complex and contested; markets and basic service infrastructure are underinvested, and livelihood opportunities are few. Most of those interviewed for this evaluation rely on environmentally destructive charcoal kilns to supplement meagre farm incomes and migrate for work to the urban centres or industrialised agricultural schemes periodically.

This precarity, as elsewhere in the Horn of Africa, leaves them highly exposed to shocks, which take many forms – conflict, floods and drought, health problems, crop pests, banditry and fluctuations in the price of staples, to name a few. The means of coping are few, and generally rely on social solidarity. Whilst this is strong in the communities surveyed – a source of resilience, if this is the right term – it is not a deep well. Any sustained or particularly severe shocks quickly exhaust the reserves of community solidarity leading to break down.

The root cause of Sudan's humanitarian need lies in a centralised, exclusionary political system and a historical ambivalence to the US-led globalised political and economic system. Fundamentally, the state has not sought to develop its extensive hinterland, concentrating resources instead in Khartoum and the strip of Nile-based lands to the immediate north. Instead it has sought to quash dissent through military means, exploiting tribal division as a divide and rule strategy. Internationally, Sudan has fallen in and out of favour with the US and its allies, and since the late 1980s has increasingly been labelled a rogue, or pariah, state.

Humanitarian actors have tried hard to ignore the fundamentally political nature of Sudan's 'crisis' – despite many international NGOs being expelled from the country and those that remain being subject to intense scrutiny and control through the government's Humanitarian Aid Commission (HAC). A tacit pact has emerged whereby those NGOs left can do technical work as long as they do not talk about human rights abuses or do anything the government might not like.

The upshot of this is short-term, technical humanitarian action to address a long-term, political crisis. Combined with travel restrictions, information-gathering restrictions, lack of meaningful data, and a lack of any means of engaging with the population, the chances that humanitarian aid in Sudan is configured optimally are slim.

This evaluation concludes that multi-year humanitarian aid offers a small part of the solution to optimising the \$1bn annual assistance that it should be presumed will continue to flow for the next five to ten, and probably 20 years. It starts to address the short-term part of the problem, but when 'multi-year' is conceived of as 18 months, or three years at best, not by very much. Neither does it address some of the other, in reality much larger and more significant problems, such as lack of access and politically driven crises.

Humanitarian aid will always be a lifeline for people in places like Sudan, however imperfect or constrained it is. There remains a major role for immediate, lifesaving assistance in a country where the risk of mass mortality (however infrequently) is absolutely real. Maintaining the space and the infrastructure to deliver this is worthwhile in itself. However, bad development done in the name of humanitarian aid is not as convincing. Long-term agriculture projects delivered with tiny budgets and unrealistic time frames, or nutrition behaviour-change projects cut short after a couple of years are not optimal. And the ongoing support for IDP populations, seemingly without a plan for their future, seems neglectful bordering on harmful. Certainly, the thoughtless destruction of vital natural resources is deleterious.

This evaluation has seen some good, positive outcomes from DFID's MY investments. Diets have changed for the better in Kassala, and in Darfur the uptake of new farming techniques shows promise. The revival of conflict resolution committees, whilst uneven, is extremely positive in Darfur. These types of outcomes show promise, and most importantly highlight new ways of working that must be considered if the humanitarian endeavour is to contribute beyond episodic emergency response. However, this evaluation has also recorded the usual egregious stories of poor aid: infrastructure that creates flooding and ruins land; NGOs that train people for jobs that are not there; promises of aid that never materialise, or partly delivered projects that are futile because of their incompleteness. Multi-year funding will not fix these problems, which pertain more to the nature of aid than any one funding modality.

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Abbreviations

BPRM	Bureau for Population, Refugees and Migration
CAFOD	Catholic Agency for Overseas Development
CCA	Climate Change Adaption
CHF	Common Humanitarian Fund
CRS	Catholic Relief Services
DFID	Department for International Development
DRR	Disaster Risk Reduction
ECHO	Directorate-General for European Civil Protection and Humanitarian Aid Operations
FAO	UN Food and Agricultural Organization
FFP	Food for Peace
FGD	Focus Group Discussion
FGM	Female Genital Mutilation
GAM	Global Acute Malnutrition
HAC	Humanitarian Aid Commission
HIEP	Humanitarian Innovation and Evidence Programme
ICRC	International Committee of the Red Cross
IDP	Internally Displaced People
INGO	International Non-Governmental Organisation
ITCF	Infant and Young Child Feeding
JEM	Justice and Equality Movement
JRP	Joint Resilience Programme
MYHF (or MY)	Multi-Year Humanitarian Funding
NCA	Norwegian Church Aid
NFI	Non-Food Item
NGO	Non-Governmental Organisation
OFDA	Office of Foreign Disaster Assistance
SAM	Severe Acute Malnutrition
SHARP	Sudan Humanitarian Assistance and Resilience Programme
SHF	Sudan Humanitarian Fund
SHIP	Sudan Humanitarian and Innovation Programme
SILC	Savings and Internal Lending Communities
SLA	Sudan Liberation Army
SPLA	Sudan People's Liberation Army
UMCOR	United Methodist Committee on Relief
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UN OCHA	United Nations Office for the Coordination of Humanitarian Affairs
USAID	United States Agency for International Development
VE	Valid Evaluations
VFM	Value for Money
WASH	Water, Sanitation and Hygiene
WFP	UN World Food Programme
WHS	World Humanitarian Summit
WV	World Vision
ZI	ZOA International

1. Introduction

The thematic evaluation of DFID's Multi-Year Humanitarian Funding (MYHF, or MY) approach in the Democratic Republic of Congo (DRC), Ethiopia, Sudan and Pakistan was commissioned in early 2014. It is part of DFID's Humanitarian Innovation and Evidence Programme (HIEP), seeking to broaden the evidence base and improve practice in humanitarian action.

The study has taken place over nearly four years, with a completion date of December 2018. The purpose of the study is to generate learning and evidence on whether, and how, a MYHF approach has enabled DFID programmes in each country to:

- Ensure a timely and effective humanitarian response;
- Build disaster resilience; and
- Achieve better value for money (VFM).

The evaluation aims to provide evidence to contribute to the management of these programmes at country level, as well as informing DFID's humanitarian policy more broadly. The evaluation findings are also expected to contribute to: the global evidence base on good humanitarian practice; how to build resilience in the most fragile and conflict-affected states; and the realisation of the resolutions made at the World Humanitarian Summit (WHS) in 2016.

Of the four country case studies, that for Sudan has been the most problematic, with limited access for the core team members preventing some essential support functions to the research teams. Visas for international staff were only granted on one occasion, and that with travel beyond Khartoum precluded. Travel permissions for field work by national staff were slow in delivery, and survey instruments had to be approved by the Humanitarian Aid Commission (HAC), meaning that many areas of research proved challenging. As a result, the study was not able to reach all of its goals.

1.1 Sudan context

Since independence in 1956, the Republic of Sudan has been plagued by poor governance, military dictatorship and internal conflict. This has been overlaid by frequent food shortages and famine induced by a changing climate and conflict, and in some cases, both simultaneously. The Nimeiry government of the 1980s effectively absconded responsibility for the humanitarian response to, in particular, the famine that affected eastern, southern central and western states of Northern Sudan. Omar al-Bashir's administrations have sought to manipulate assistance in support of conflicts with both the southern Sudanese and with those 'Arab' and 'black Arab' populations of the West.

The long-running war with South Sudan which finally ended in 2011 eclipsed the conflicts fought at different times in the Red Sea Hills, the Nuba mountains (entailing both armed violence and kidnapping for slavery), Kassala (including occupation of the northern part of the state by SPLA forces), Kordofan, Blue Nile State and Darfur.¹ In all cases, simmering conflict and all-out war and displacement have made the lives of millions at best marginal and at worst untenable.

The imposition of international sanctions in 1997 and their later expansion in 2007 following the Darfur conflict (see below), has done little to abate the internal strife. President Omar al-Bashir's indictment in 2009 for war crimes and crimes against humanity in Darfur further isolated the country but had little impact on the wars being fought. The exploitation of Sudan's oil reserves alleviated

¹ In some cases local competition for resources has been co-opted for wider political purposes.

much of the impact of the sanctions and China's heavy investment in the country's infrastructure has helped to mask the massive underinvestment by the government itself.

The lifting of sanctions in October 2017 has seen an attempt to replace oil revenues lost with the independence of South Sudan by the exploitation of, for example, mineral reserves and agriculture, whilst following an economic austerity programme.

The economy

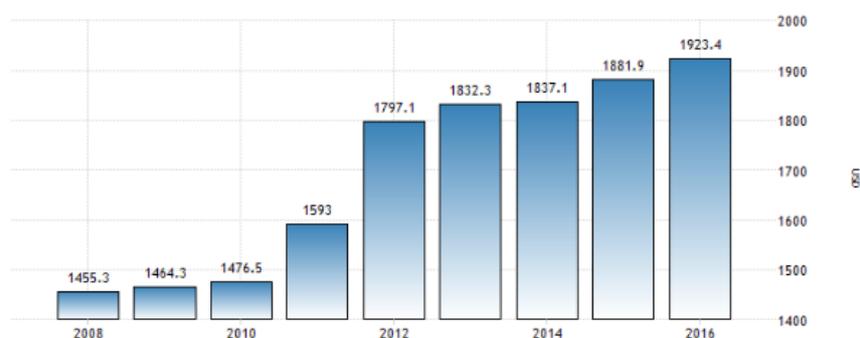
Sudan's economy has grown unevenly as a result of conflict and international isolation, with development also constrained. Before South Sudan's independence the economy grew at a steady 7%, driven primarily by oil flows and Chinese investment. GDP initially collapsed with the reduction in oil revenues after 2011 but has subsequently climbed again to a respectable 3%–4% annually.

Agriculture, much of it rainfed, subsistence and prone to droughts and floods, constitutes about a third of the economy and employs 80% of the workforce.² Minerals and oil dominate export income. Inflation is high at 27%³ and Sudan remains heavily indebted, making borrowing difficult.

Sudan ranked 165 out of 187 in the 2016 UNDP Human Development Index (an improvement of six places since 2012). Nearly half (46.5%) of the population lives at, or below, the poverty line, although this is heavily skewed towards rural areas.⁴

While GDP per capita has shown a steady growth in overall terms (Figure 1), there has been little, if any, measurable change for the general population, and in particular for a large minority in the conflict-ridden areas of Darfur, Kordofan and Blue Nile State.

Figure 1: GDP per capita



Source: Tradingeconomics.com/World Bank (accessed 2 May 2018).

Population growth is projected at 2.3% per annum between 2016 and 2030. Under-5 child mortality fell from 128 to 65/1,000 between 1990 and 2016. Just over half of boys (52%) and girls (55%) access primary education. Secondary school enrolment stands at about 31.5% for both, and the literacy rate measures 69% for the 15–24 age group. Immunisation coverage is surprisingly high at 93%,⁵ and 59% of the population has access to safe water.⁶ Currently, 34% of the population is urban, and is expected to grow by 3.1% annually to 2030.⁷

² *The World Factbook*, CIA, 2018, <https://www.cia.gov/library/publications/the-world-factbook/>

³ *Ibid.*

⁴ 57.6% of rural inhabitants are poor compared with 26.5% urban.

⁵ Although this is probably a measure of the 'accessible' population.

⁶ Ditto.

⁷ All statistics from *The State of the World's Children 2016: A Fair Chance for Every Child*, UNICEF, https://www.unicef.org/publications/files/UNICEF_SOWC_2016.pdf

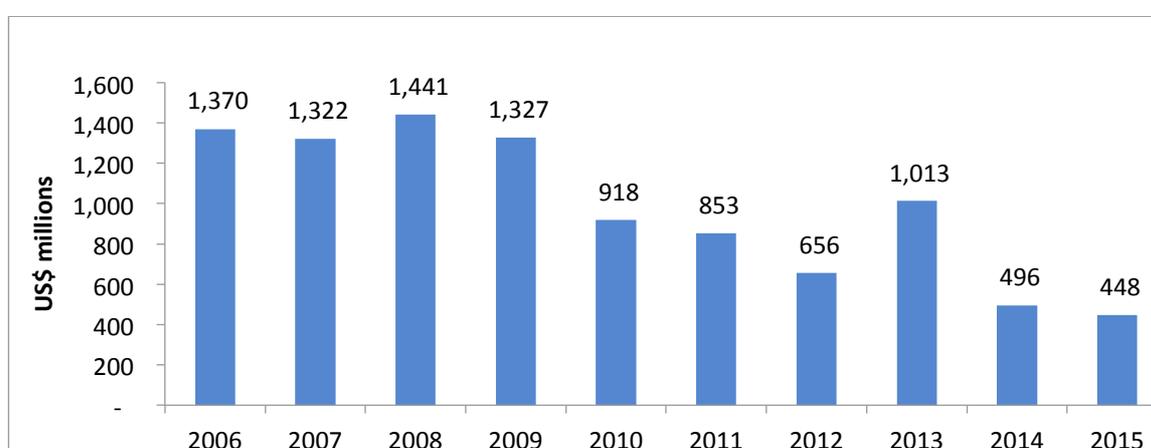
Land tenure

Customary law varies throughout the country, but tends to share the following general characteristics: land is considered to belong to the people; land is not formally registered; land remains with the tribe or clan and cannot usually be sold to outsiders; most land rights are use rights, and land is considered retained by a household until abandoned (and in some circumstances even if abandoned); ... Most groups distinguish between land used for grazing and hunting and land used for farming and residences, and different rules apply to the various land categories. Local leaders determine who has rights to land and other natural resources and who must seek permission for use of land⁸ (for more detail see Annex 1).

Humanitarian need in Sudan

Sudan commands a significant proportion of the international humanitarian budget, this despite a falling-off of total annual assistance between 2009 and 2012 and again between 2013 and 2017.

Figure 2: Global humanitarian assistance, 2017



Source: Global Humanitarian Assistance, 2017, Development Initiatives.

Sudan received over \$21bn of humanitarian assistance between 1992 and 2017. While crises have shifted geographically, the underlying causes have been climate extremes and, exacerbating these natural extremes, contested state legitimacy and the inability, or reluctance, of the centre to ensure (or apply) the rule of law at the periphery. The instability engendered has allowed the central authorities to manipulate conflicts between historically antipathetic ethnic, tribal and political groups.

With lives and livelihoods (predominantly dependent on rainfed agriculture) at constant risk of disruption by weather and conflict, Sudan is caught in a humanitarian vortex. Sudan’s most critical Western adversaries are also its biggest humanitarian donors, with the US providing over \$234m in 2017 and with DFID consistently contributing the lion’s share of the annual UN-administered Sudan Humanitarian Fund (SHF). The annual appeal for 2018 stands at \$1.01bn.

Loans from international financial institutions and bilateral development aid are all but impossible because of historical economic sanctions and political differences. The entry of China, India and the Gulf States into Sudan’s extractive and agricultural industries has mitigated this situation, but has had little impact on the conflict issues of Darfur and acute poverty and humanitarian vulnerability in Kassala.

⁸ Sudan Country Profile: Land Rights and Property Governance, USAID, 2016 available at https://www.land-links.org/wp-content/uploads/2016/09/USAID_Land_Tenure_Sudan_Profile.pdf

The conflict in Darfur

Darfur's population of 7.5 million is spread over an area the size of France. Conflicts in the state have raged since the late 1980s, stemming from 'Arab' vs 'non-Arab' struggles over access to productive land; disputes in the 'transitional zone' between North and South Sudan; and, since 2003, insurrection against the Khartoum government.

The current conflict unleashed regime-backed 'Arab' militias against the civilian population in retaliation for the armed activities of the Justice and Equality Movement (JEM) and the Sudan Liberation Army (SLA). This resulted in mass displacement and the sequestration of large sections of the population in camps in Darfur or in neighbouring Chad, served by an international humanitarian community working under severe government constraints and regular security threats.

Despite the progressive reduction in violence since 2006 as a result of the peace process, there were still more than 1.76 million IDPs in Darfur in general in 2018, with around 240,000 IDPs in West Darfur.⁹

Kassala

Kassala saw a major transformation in the twentieth century from a largely pastoralist or agro-pastoralist economy dominated by two or three ethnic groups, to a multi-ethnic and national population competing for land rights, as investment in extensive mechanised farming transformed the relationships between existing groups, and between these groups and the in-comers. Accompanying this were refugee flows and insurgent movements in and out of Eritrea and Ethiopia (including movements from the Valid Evaluations (VE) research areas) and from South Sudan (Hamashkoreb province was occupied by the SPLA between 1999 and 2000).

Continuing refugee movements from Eritrea and people trafficking imposed new pressures on the state in the new millennium.¹⁰

Kassala is, therefore, roughly characterised by large elite landowners occupying 80% of the rainfed arable land for mechanised farming, in direct competition with traditional and incoming groups vying for access to a viable livelihood in a context of both drought and periodic devastating flooding of the Gash, Atbara and Rahad rivers. A recent development has been a move by the Rashaida, themselves immigrants from Saudi Arabia, to occupy land made more valuable by dam and irrigation development.

1.2 Methodology

The evaluation's purpose was to generate evidence and learning on the use of MYHF in fragile and conflict-affected states. It aimed to answer three main questions:

1. Are vulnerable individuals and households more resilient to shocks and stresses as a result of the work of DFID-funded (and other) interventions? What lessons can be learned about how to best enhance resilience in protracted crisis? How do investments in resilience contribute to or compromise delivery of humanitarian outcomes?
2. Has the availability of contingency funding enabled DFID and its partners to respond more quickly and effectively when conditions deteriorate?
3. To what extent does DFID MY and contingency funding provide better VFM than annual funding for DFID and partners?

⁹ Sudan – Complex Emergency, Fact Sheet 3, 30 March 2018, https://www.usaid.gov/sites/default/files/documents/1866/sudan_ce_fs03_03-30-2018.pdf

¹⁰ Kassala is now an established people-trafficking route, bringing with it a vigorous trade in small arms and, less prominently, drugs.

The evaluation employed a range of methods, including: a qualitative panel survey; a quantitative survey looking at health shocks; and extensive review of DFID partner data accompanied by regular key informant interviews.

The method has combined both inductive and deductive approaches. To answer the resilience question in particular, the evaluation has been inductive and iterative in nature because resilience theories were contested at the inception of the research, and MYHF was very new. The VFM work was more deductive, and drew on earlier work on multi-year programming's potential VFM benefits, providing a framework that could be tested.

Panel interviews

To answer the first question on resilience, the evaluation initially relied on a set of panel interviews in south West Darfur and Kassala States. The sites were chosen on the basis that there were DFID-funded MYHF programmes targeting those areas (see below for details).

As a first step, the evaluation needed to understand (i) the nature of the shocks and stresses that people experience in their different environments; (ii) the degree to which people or households are resilient in the face of these shocks and stresses; and (iii) the functioning of DFID – and other – funded interventions.

These three elements together also helped to understand whether lessons can be learned about enhancing resilience, and whether the MY investments contribute to, or undermine, it.

DFID produced an Approach Paper on resilience in 2012.¹¹ Central to this was the idea of 'capacity to deal with disturbance', or whether – and how – people can cope with shocks. This idea is also central to the widely used Béné framework¹² with its three elements of 'coping capacity' – absorptive, adaptive and transformative.

The evaluation therefore took 'coping' as a starting point to understanding resilience. In brief, the evaluation looked at:

1. The types of shocks people and households experienced;
2. How they coped; and
3. The role that aid, in the broadest sense, played in their coping.

Initially, the enquiry took a panel approach. This, it was felt, would help to document both shocks and coping in the Sudan context, and whether and how people received assistance.

The panel survey was designed to be as open and wide-ranging as possible, over a period of 24 months,¹³ allowing an understanding of shocks, and coping with shocks whether covariate or idiosyncratic,¹⁴ from the perspective of people experiencing them, over time and in real time. This approach was anticipated to allow the team to determine patterns of coping (who coped better, and why) and thus give some insight into resilience. If patterns were determined, or there were shocks that warranted further in-depth study, then the research could be pivoted towards this, theories formed and then further tested. This bottom-up, inductive approach was very open-ended, with the intention of narrowing the enquiry over time as patterns were detected, allowing conclusions to be reached about the nature of resilience, and the role that MYHF could play in

¹¹ DFID (2012) *Defining Disaster Resilience: A DFID Approach Paper*, London: UKAID.

¹² Béné *et al.* (2012) *Resilience: New Utopia or New Tyranny?* IDS Working Paper 405, Brighton: IDS.

¹³ Four 'rounds' of the panel survey were envisaged at roughly six-monthly intervals over the two years that were available.

¹⁴ Covariate: experienced by the many; idiosyncratic: experienced by the individual person or family unit.

enhancing it. This subsequently led to the quantitative enquiry into health shocks and a further qualitative study in women and shocks, although this was somewhat compromised.

Concurrently, the evaluation wanted to understand, as thoroughly as was possible, the DFID-funded MYHF programmes and what they did. That is, by understanding the role aid played in helping people cope, and which aid was associated with DFID MYHF programmes, the evaluation would be able to draw some conclusions on research question one. This consisted primarily of a periodic review of partner documentation, and when possible, key informant interviews with programme staff and leaders within the DFID partner agencies. Because of the restricted access, this was partly done by Skype and by using some of the programme-focused evaluative exercises. The team did secure one visit to Khartoum for a member of the core international team that was used to conduct key informant interviews and attend a DFID workshop on resilience that included all the main partners.

Health and women in shocks studies

In addition to the panel surveys – and partly because of the complexity of access and quality issues – the thematic evaluation commissioned two additional studies to explore aspects of resilience. These were to mirror companion pieces in at least one other country in the thematic study.¹⁵ The two studies looked at (1) the changing role of women in society as a result of shocks in Kassala, and (2) the cost of health shocks and the potential role of formal and informal insurance in mitigating them in West Darfur.

In the event, the Kassala study proved extremely difficult to carry out; the data gathered was treated instead as a partial third round of panel data (as some panel households were included). The health study was much easier to implement and is published as a separate paper.¹⁶

The health shocks study was carried out in late November and early December 2017 in the five villages subject to the panel interviews. For this, 331 households were randomly sampled¹⁷ and quantitative data collected on household demographics, the prevalence of ill health over the previous 12 months for all members of the household and health-care seeking behaviour in each case of ill health.

Detailed costs were collected for all health-care visits (western, traditional and spiritual/religious) for one episode of ill health from the respondent and for one child in the household.¹⁸ Total costs for the households were extrapolated from the costs for one adult and one child.

Because health costs are highly skewed to large amounts (making average data unrepresentative of most household health spending), the study mixed both standard statistical approaches and hybrid calculations, often including median values.¹⁹ For a full explanation of the methodology see Levine and Kusnierek (2018).²⁰

¹⁵ Levine, S. (forthcoming) 'Changing Role of Women in Pakistan'; and Levine, S. and Kusnierek, A. (2018) *Counting the Cost: Assessing the Full Economic Cost of Ill-Health in DRC, Sudan*, London: ODI and DFID.

¹⁶ Levine, S. and Kusnierek, A. (2018) *Counting the Cost: Assessing the Full Economic Cost of Ill-Health in West Darfur, Sudan*, London: ODI and DFID.

¹⁷ For reasons of cost, 331 households were selected with a standard sampling error of +/- 5.

¹⁸ If a head of a household or their spouse was not available, researchers sought the next available person able to talk about the household and its sickness episodes. Children were selected by alphabetical 'seniority' (i.e. Amina over Khalid) and who could remember a sickness episode.

¹⁹ The purpose of the hybrid approach was to avoid extreme values, which would have overly influenced the average values.

²⁰ Levine, S. and Kusnierek, A. (2018) *Counting the Cost: Assessing the Full Economic Cost of Ill-Health in West Darfur, Sudan*, London: ODI and DFID.

Substantive research areas

The evaluation selected two main geographical areas of focus, based on the DFID-funded multi-year resilience partners' presence. The Taadoud consortium operates across Darfur, but this was too wide an area for detailed enquiry, so, in consultation with the lead agency Catholic Relief Services (CRS) and the Sudanese authorities, an area in West Darfur was chosen encompassing five villages. In Kassala, the research team attempted – again in consultation with UNICEF and FAO as the active partners in the JRP – to pick representative villages in their project area. This led us to select:

- West Darfur: Dorti, Faiga, Haraza, Hasabona and Nur Alhada villages.
- Kassala: Akla, Eissa, Elatyout, Saboon, Timekeet and Umbarakat.

The villages of West Darfur lie between the small regional towns of Habilla and Mornie, close to the border with Chad. They are agro-pastoralist, planting sorghum and millet and a variety of cash crops – from peanut to vegetables (in the fertile and irrigated valleys). They also keep small livestock holdings, engage in charcoal production and a variety of on- and off-farm labour. All of the villages have been affected by the conflict in Darfur to some degree, and several continue to suffer tense relationships with neighbouring cattle and camel herders.

The villages in Kassala are all inhabited by clan members of the Beja agro-pastoralist tribe and are a mixture of 'old' and 'new' settlements, the latter established largely as a result of climate catastrophes over the past 30 years. The people of Timekeet spent seven years in Eritrea as refugees from the occupation of their area by the SPLA and its aftermath. Livelihoods are maintained through crop production and sale, charcoal production and firewood-gathering, migration to river valleys to practice seasonal flood-retreat agriculture, and, for a significant proportion, seasonal migration for pasture or for labour in the cities and commercial agricultural developments in the region.

Research team composition

Thanks to the professional connections of the VE senior national consultant, a team of local researchers was engaged through the Academy of Health Sciences in Khartoum, a reputable and established quasi-governmental research agency.

The intention in Sudan – as with the research exercises in the other three countries – was that there would be intensive training, coupled with field testing, and that other team members would be available to carry out the training. In the event, difficulties in obtaining visas meant that this could not happen and logistical constraints in Darfur also meant that field testing and extensive training did not take place. The first round of interviews was rushed as a result, and, while some of the researchers were not of the ideal professional profile, they were able to gather sufficient information to achieve the overall aims of the research in the time, and with the budget, available. Whilst data quality was undoubtedly affected (or rather the depth of data gathered was diminished), triangulation with other research and subsequent rounds of data collection suggests the conclusions of the research are valid.

In subsequent rounds, lessons were learned and a researcher from IDS and a highly experienced former country manager from Save the Children were hired to help the senior national consultant with team selection and training (both Sudanese nationals). Whilst the quality of the interviews and write-ups improved immeasurably, major constraints continued to be felt both in terms of the quality of researchers available and the space allowed for the team to ask sensitive questions (in particular on issues of national security and sexual and gender-based violence). This too affected the

quality of the overall research, limiting what could be legitimately learned.²¹ As with all research of this nature, government officials accompanied the teams meaning that sensitive subjects were difficult to tackle, and respondents were not always forthcoming.

Focus group discussions were held in all locations, with representatives being randomly selected from the village communities. Women and men formed separate groups to avoid bias. Pastoral communities were also represented where they had integrated with the farming communities, predominantly by middle-aged men.

Table 1: Capture and analysis of the data – household interviews by village and by round

West Darfur panel interviews by village and by round		
	R1	R2
Dorti	15	7
Faieg	10	10
Haraza	16	8
Hassabona	13	8
Nur Alhuda	12	13
TOTAL	66	46

Table 2: Kassala panel interviews

Kassala panel interviews by village and by round							
		R1	R1	R2	R2	R3*	R3*
Locality	Village	FGD	HH	FGD	HH	FGD	HH
Aroma	Akla Almahata	2	10	2	10		
	Um-Barakat	1	8	3	10	2	9
North Delta	Eissa-Elhaj	2	9	2	10	1	7
	Saboon	2	9	3	13		
Telkuk	Elatyout	2	11		1		
	Timekeet Almasjid	2	11		4	2	7
	Al Rashdeen area			1		1	
	Goz Rajab					1	10
	Jabal Habboba					2	4
	Mukram Al Rashdeen						9
TOTAL		11	57	11	48	9	42

*R3 Villages differ as they included some aspects of the gender study.

²¹ However, careful triage of the interviews and requests for clarification and, where possible and appropriate, further detail, overcame many of the difficulties.

Figure 3: Gender breakdown of the respondents

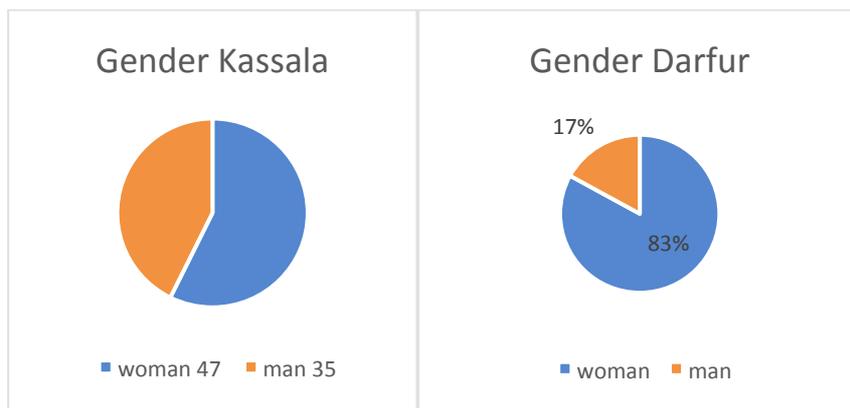
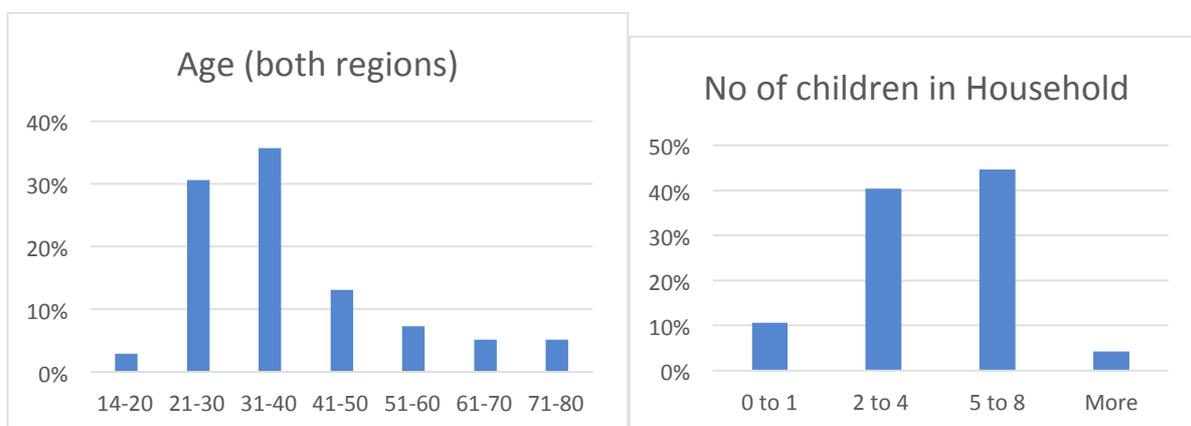


Figure 4: Age range for the respondents (in %)

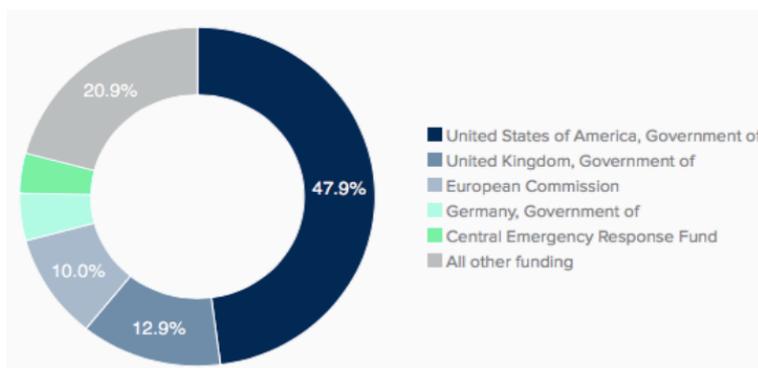


1.3 Aid contributions and the DFID portfolio

As noted earlier, the bulk of humanitarian assistance to Sudan has been provided, historically, by the US and UK governments, with significant contributions from the EU/ECHO. Very little of this, with the exception of DFID, has been multi-year.

Over the four years of the research period (2014–18), humanitarian contributions from the three principle donors amounted to approximately \$1.12bn, the largest contributor by far being the USA through the Office of Foreign Disaster Assistance (OFDA), Food for Peace (FFP) and the Bureau for Population, Refugees and Migration (BPRM). Due to the operational difficulties faced by NGOs in general over the period, the vast majority of funds passed through WFP, UNHCR and UNICEF.

Figure 5: Humanitarian contributions in Sudan, 2016



Source: OCHA Financial Tracking Service Sudan 2016.

The DFID humanitarian portfolio

DFID has been the major contributor to the Sudan Humanitarian Fund (SHF) since its inception in 2006. During the period of the research, the SHF shrunk considerably, with DFID’s share increasing proportionately; in 2017 the SHF had slipped to \$36m from \$53m in 2015.

Whereas in 2015 the UN organisations were the major beneficiaries at 54% and international NGOs (INGOs) and national NGOs received 46%, by 2017 the balance altered radically, albeit with a smaller total fund, with UN agencies receiving 24% and INGOs and national NGOs in receipt of 72% (reflecting, presumably, improved access and increased levels of trust in the latter).

The Sudan Humanitarian Assistance and Resilience Programme (SHARP) business case originally set out a three-year plan (2013/14–2015/16) to respond to both chronic and acute humanitarian needs in Sudan. This included £67m for UN agencies, INGOs and the International Committee of the Red Cross ICRC. An additional £21m was budgeted to respond to spikes in need over the course of the business case.

The implementation time frame was extended to 31 September 2017, primarily to cover the (slower-moving) resilience components.

The outcome statement for the SHARP business case is:

In targeted areas existing capacity of beneficiaries to absorb shocks and stresses is enhanced whilst where relevant humanitarian response mitigates negative consequences in a predictable manner.

The DFID annual review, 2016²² mapped the progress of the SHARP, highlighted some of the difficulties inherent in implementing a programme in Sudan and emphasised that:

operational space for humanitarian partners was unlikely to open up in 2016, requiring some flexibility on DFID’s part to manage any resulting challenges for their funded partners longer term programmes, including those supporting resilience-building, should build in flexibility; provide for scale-up and adaptation in response to shocks; and allow sufficient time for implementation the importance of working across DFID office functions to ensure that funded programmes maximise their impact.²³

²² Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/625548/DFID-Annual-Report-and-Accounts-2016-17.pdf

²³ The Kassala water programme was cited as a particular example.

Table 3: DFID contingency funding 2013–16

DFID contribution to	2013/14		2014/15		2015/16		Total estimated expenditure	
	Contingency		Contingency		Contingency		Contingency	
CHF	£14.0m		£10.0m		£7.0m		£31.0m	
ICRC	£2.5m		£2.5m		£2.5m		£7.5m	
WFP	£4.0m		£4.0m		£4.0m		£12.0m	
FAO	£1.0m		£1.0m		£1.5m		£3.5m	
INGOs	£3.5m		£4.0m		£4.5m		£12.0m	
Evaluation	£0.3m		£0.3m		£0.4m		£1.0m	
TOTAL	£25.3m	(£7m)	£21.8m	(£7m)	£19.9m	(£7m)	£67m	(£21m)

DFID allocated approximately £127m to humanitarian programmes during the study period.²⁴ The SHARP business case covered the projects, constituting 20% of the total investment, which VE had identified in its evaluability (2014)²⁵ and formative (2016)²⁶ reports. The Sudan Humanitarian and Innovation Programme (SHIP), valued at £38.7m concentrated on the WFP voucher programme and the Sudan Humanitarian Fund, with some funds allocated to research and nutrition assessment through UNDP and UNICEF).

MY humanitarian programmes

The two Sudan multi-year humanitarian programmes each had a different focus but contained some similarities, with resilience-building the binding principle.

- The Taadoud programme, a CRS-led NGO consortium in a conflict/post-conflict context, concentrated on agriculture, with some nutrition education and some community group support.
- The Joint Resilience Programme (JRP), a UNICEF-led UN consortium operating in an environment of climatic shocks and very high levels of malnutrition, targeted improved nutrition, with some agriculture and community group support.

Table 4: DFID initial and final contributions to MY humanitarian projects

Project name	Initial allocation	Final allocation
JRP	£13,308,000	£15,942,009
Taadoud	£11,945,212	£11,945,212

Both projects underwent independent evaluations, with that for the Taadoud consortium reporting highly impressive gains, and that for the JRP being more circumspect. Initial decisions about the two projects' futures were taken before either evaluation was available.

²⁴ Approximate because the start and end dates do not exactly align.

²⁵ The report pointed out that the small sample size and limited duration of the two consortium projects and the complexity of the environment would make the capture of *definitive* impact unlikely with any degree of rigour.

²⁶ The formative report pointed to substantial progress in the thematic evaluation, whilst noting that this was in the context of visa problems, national staffing issues and insecurity in West Darfur.

Taadoud: a brief description

The Taadoud consortium²⁷ was led by Catholic Relief Services (CRS) with the Catholic Agency for Overseas Development (CAFOD), Norwegian Church Aid (NCA), Oxfam America (Oxfam), United Methodist Committee on Relief (UMCOR), and World Vision (WV). The project targeted over 200 communities in 18 localities across all five Darfur states, directly benefiting more than 60,000 households and indirectly benefiting more than 95,000 households.

Its principal aim was to build the ability of local communities and households to effectively cope with shocks and stresses with an overall goal of **'Increased household resilience to shocks and stresses supported by strong community structures which are integrated with local government services'**.

Taadoud had four main components and output objectives:

1. *Improving household-level food security;*
2. *Improving household-level nutrition:* 43,456 households have adopted the Essential Nutrition Action;
3. *Strengthening community-level Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA);* and
4. *Respond to El Niño-induced drought:* 16,533 households in areas with high impact from El Niño-induced drought have received timely appropriate support to protect main streams of income and health.

The Joint Resilience Programme (JRP): a brief description

The JRP consortium was led by UNICEF and included WFP and FAO. Its aim was to 'strengthen resilience to weather shocks, namely droughts and floods, of targeted communities in four selected localities (Aroma, Hameshkoreb, North Delta and Telkok) in Kassala state', targeting 75 villages with a population of approximately 193,000 people and aiming to reduce – interestingly and ambitiously – stunting in under two-year-olds. Lasting three years, the JRP had five main outputs:

1. *Community-owned action plans* to strengthen resilience to floods and droughts and improve gender equality through improved nutrition, sanitation and livelihoods, led by WFP;
2. *Increased access* to maternal and child health and nutrition services, led by UNICEF;
3. *Increased availability* of improved drinking water, use of improved sanitation facilities, and hand-washing practices in Aroma locality, led by UNICEF;
4. *Increased resilience of livelihoods* to shocks that impact agriculture, food, nutrition and economic sustainability, led by FAO; and
5. *Communities are prepared to respond* to droughts caused by El Niño through increased availability of services in nutrition, health, WASH, livelihood and food security: a joint emergency response effort by the three partners.

See Annex 2 for greater detail.

²⁷ 'Taadoud' translates as working together towards one purpose, solidarity.

Resilience investments

DFID funded a number of resilience-building initiatives in the period of the evaluation to complement its major humanitarian contribution. These were mostly in support of the rehabilitation effort in Darfur, and with a complementary programme to the JRP in eastern Sudan. These include:

- **Water for Darfur (W4D) 2015–20**, implemented by UNICEF, targeting nomadic and pastoralist communities living within a defined water catchment area, and who faced contested access to scarce water resources (for agriculture and livestock) and drinking water supply.
- **Urban Water for Darfur (UW4D) 2015–19** implemented by UNICEF, targeting two out of five state capitals, and assisting IDP camps that have become, effectively, urban settlements.
- **Responding to Protracted Crisis in Sudan: Humanitarian Reform, Assistance, and Resilience Programme 2017–22**, a multi-partner²⁸ programme in support of the draft humanitarian response strategy targeting emergency food supply, nutrition and WASH in Darfur.
- **Water for Three States** (Red Sea, Gedaref and Kassala), targeting urban and rural water supply and implemented by ZOA International (ZI).
- **Sustain Darfur Programme 2017–20** addressing the conflict issues arising from water access in Darfur and implemented by ZI.

None of these initiatives is explicitly mentioned in the Darfur and Kassala interviews, although they might well be recognised as assistance brought by 'government' or 'organisations', a common reference at household level.

²⁸ Catholic Relief Services (CRS), British Red Cross Society (BRCS), UNDP and WFP.

2. Findings from the primary data capture

Much has been written about the conflict in Darfur, and less about how people live in Kassala although the contexts are broadly similar. Both areas are the neglected hinterland of a large and dysfunctional centralised, militarised state. Both have a mix of livestock herding and agriculture as their predominant livelihoods, with poor infrastructure and long-term stresses undermining traditional ways of living. Both have experienced severe climate shocks and conflict (the latter much more so in Darfur). Kassala, bordering Gedaref, has access to migrant labour opportunities on extensive commercial agriculture schemes both within and outside the state. West Darfur is marginally better off in terms of its soil fertility, although this is largely immaterial in an agricultural economy constantly disrupted by conflict.

What Darfur and Kassala both share however, overwhelmingly – and in common with other country case studies for this evaluation – is their structural vulnerability to shocks. This is intimately connected to their economic and political marginalisation as regions and as peoples, exacerbated by conflict that has its roots in that same marginalisation and accompanying grievances. And, in both places, ancient ways of life and old and established livelihood systems that for the most part worked in the past have experienced repeated stress and to some extent buckled under the pressure.

People no longer rely exclusively on agriculture or herding but, increasingly, adopt traditional distress strategies as modern routine, and migrate to towns and cities in search of work. Similar to the other country case studies in this evaluation, the changes are almost certainly accelerated by displacement caused by conflict or natural disaster.

In both of the areas studied there were observable positive impacts from the DFID-funded multi-year programmes. There were good indications of the relevance of multi-year approaches in long-term, protracted crises. Similarly, there were evident limits to what can be achieved in the face of political, economic and social constraints.

2.1 Livelihoods

In **Kassala**, the livelihoods of the Beja people have changed profoundly over the last 20–30 years, due to:

- Drought, especially that of 1984, and regular floods, in particular those of 1988 which caused a number of communities to relocate permanently;
- Conflict, most notably in Hamashkoreb, which was occupied by the SPLA from 1999 to 2000, and an ongoing insurrection between 1994 and 2006, resolved by the Eastern Sudan Peace Agreement of 2007;
- Changing land use patterns brought about by large commercial farming developments and the commandeering of land by the Government to that end, in the process overruling customary law and a traditional understanding of land rights and settlement; and, lastly
- In-migration of new groups such as the Rashaida, themselves immigrants from Saudi Arabia, as they have seen land values increase and infrastructure improve.

This has resulted in livelihoods now combining:

- Settled and seasonal migration for farming;
- Traditional seasonal migration in search of pasture and, concomitantly, employment in the commercial developments of New Halfa;
- Seasonal or permanent migration to towns and cities in search of waged employment; and

- The adoption of income-supplementing activities such as charcoal production (in principle proscribed by government), firewood gathering for sale in the market or to the brick producers, employment in brick production and, for the women, handicrafts.

The seasonal calendar for the Kassala study area reflects these changes.

Seasonal Calendar and household economic activities in the study area: Kassala																
Seasonal Calendar	Farming; rainfed: communal, irrigated: <5%	Livestock		Charcoal	Labour Opportunities											
		Good: mostly free fodder	Bad: paid fodder		within the village: farming	Outside the village: Farming, New Halfa Scheme	Outside the village: Farming, New Halfa Scheme	Outside the village: Livestock	Outside the village: casual labour	within the village: female activities						
October				The whole process of producing 10-15 sacks takes two weeks. The prices are from 35-50/sack. As long as the marketing is within the village, taxes are not paid. Predominantly men, the trees individual household activity.												
November	Winter	Grazing within and around the village	Small stock: within village Med/ large stock: migration toward hill/ Gadarif/ Ertes		Land Preparation (summer) Farming Harvest	COTTON 1st: 3.5-4 m/fedd 2nd: 1.5-2 m/fedd 3rd: 1m/fedd Women and Men	Dura & Groundnuts Dura: 0.5/fedd Groundnuts: 5-1.5/fedd Women & Men	Paid 1-1.5 m/month for sheep/cattle (poorest of the poor and single) Paid up to 3 m./month for camels (Rashaida) Or 8-15 sheep/year (poor) Camels: 301/10 months	Kassala, Port Sudan, Gadarif	Handicrafts (palm, wool, etc.) Home gardens (irrigated during rainy season)						
December																
January																
February																
March																
April	Summer															
May																
June																
July	Rainy Season															
August																
September	Harvest															
October																
November																
December																

The JRP in support of the Beja communities has provided a number of interesting insights into poor diet diversity and lack of nutritional knowledge, as well as serious water and sanitation problems. Kassala has one of the highest rates of stunting and acute malnutrition in Sudan, the main reason for its choice as an intervention area. These are highly marginal communities.

In a good year, when the rivers overflow to provide the ‘right’ amount of flooding to encourage plentiful agricultural harvests, households manage well, and can hope to sell some surplus in the market, supplementing that income with off-farm income from labour, charcoal production and suchlike. If there is too much, or insufficient rain, then families resort to stress activities, including temporary migration in search of wage and other income. There are very few examples of households that can be termed ‘well off’, although there are those who clearly make wise investment calculations aimed at raising themselves above this uncertain existence. But, likewise, custom and culture would appear to be an impediment to change.

West Darfur

The FEWS NET livelihoods profile²⁹ classifies south West Darfur agriculture as Western Wadi Cultivation, traditionally seen as slightly better off than other parts of Darfur. People grow sorghum and millet for consumption and the better-off farmers produce enough to last them through the year. Peanuts are grown as the principal cash crop, pressed for oil which is sold and used in equal measure. Seasonal riverbeds provide fertile land for vegetable growing which is usually based on pump-fed irrigation.

²⁹ Rural Livelihood Profiles for Eastern, Central and Northern Sudan, FEWS NET, January 2015.

The cohort of households included in this study all fit this typology to some degree. However, across the five villages studied there were few examples of families who were self-sufficient; the majority relied on charcoal, grass cutting, day labour and other forms of occasional income generation³⁰ to supplement farming income. A substantial minority seek seasonal labour opportunities further afield,³¹ and a handful are professionals such as teachers and policemen.

Income levels³²

Day labour rates appear to be in the range 20–30 SDG per day (equivalent at the time of interviewing to \$3–5 per day, at the prevailing rate of \$1 = 6.6 SDG).

The interviews did not attempt to quantify annual household income but do contain enough reliable, if imprecise, information about income levels. Daily or monthly income can be seen in three bands.

- People with formal employment (e.g. police) or a viable local business (e.g. a butcher) earned 800–1,000 SDG per month (then worth \$120–150).
- Income from charcoal making (hard and time-consuming work and therefore usually relatively well remunerated) or heavy agricultural labour was around 20–30 SDG per day.
- Lighter work, such as selling in the market (i.e. for a stall with a little capital behind it) or women's agricultural labour (often a shorter day) earned 10–15 SDG per day.

Assuming three adults per household working four days per week for 11 months of the year, and earning between \$400 and \$750 depending on the type of work, an optimistic estimate of annual paid income to supplement household farm production might be \$1,500.

Income from crop production

Crop yields and income from farming are obviously variable, depending on the area of land planted, inputs, and weather. Most of those interviewed for this study rented land for cash crops, and sometimes for their own production. Land rental prices varied according to the productivity of the land and the rental arrangement (there were several instances of share-cropping), so it is hard to give a single estimate. A rent of 100–200 SDG for a *mkhama* (a little less than 2 acres) was common, although people paid much more for the best plots. Yield in a normal year was about four bags of sorghum or millet per *mkhama*, with roughly a bag per month being enough to feed a household. Very few of our cohort farmed this much land, although many estimated their own production would see them through about two-thirds of the year.

Fitzpatrick and Young in their work for the Taadoud consortium³³ developed an index of household income, its sources and the contribution of own production (see Annex 3). The index highlights the extreme precariousness of livelihoods, and the households' reliance on natural resource management. Interviews for this evaluation confirm this, but even the patchy data available suggest that this kind of 'blended income' is the new normal for the majority. Conflict drives displacement and undermines asset accumulation (see next section). Land rights, always complex and contested in Darfur, have become even less clear with multiple displacements. Urban migration – either seasonal or permanent – is a fact of many families' lives. And climate change is putting farming under even greater stress.

³⁰ Charcoal-making yields in the region of 25 SDG per day. All income alternatives are dependent on demand and, in the case of charcoal making and grass cutting, on access to the raw materials (impeded by both tribal rivalries and government edict) and the ability to carry out the hard work.

³¹ Although this tends to be over relatively short distances and for limited periods of time.

³² In the absence of verified data, this report relies on information from the panel interviews carried out by the Valid Evaluations team in the same villages as those covered by the Taadoud programme.

³³ Fitzpatrick, M. and Young, H. (2015) *The Road to Resilience. A Scoping Study for the Taadoud Transition to Development Project*, USA Feinstein International Center, Tufts University, November.

2.2 Shocks

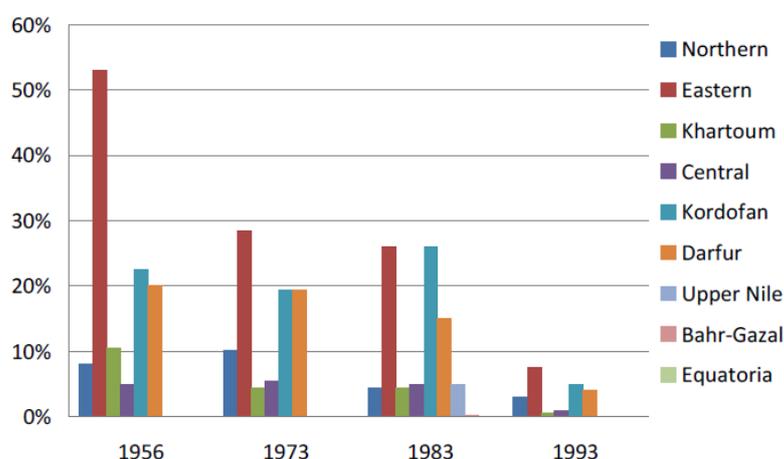
The recent histories of both Kassala and Darfur have been of climatic catastrophes, conflict, displacement or flight as refugees, and a changing lifestyle.

Conflict has dominated **West Darfur** for many years. This has been accompanied by regular droughts, most significantly in 1984. Regular lesser episodes culminated in the El Niño event of 2015–16.³⁴ The history and detail of the conflict is well documented and, according to testimony recorded for this research, far from over.³⁵ This results in an unwillingness to invest too heavily in livestock, and an ongoing battle to keep herders’ (‘cowboys’ or ‘shepherds’) cattle off their farms. Due to fear of livestock theft (mostly goats, but also cattle) the animals are kept indoors at night.³⁶ In some cases disputes can quickly escalate, leading to the use of arms and, potentially, displacement.

In **Kassala** the shocks are mostly climatic, although a history of conflict with the centre, settled in the Eastern Sudan Peace Accord of 2007, the occupation of Hameshkoreb by the SPLA from 1999 to 2000, resulting in flight to Eritrea, and the hosting of Eritrean refugees on Sudanese territory have left their mark. Over the last 50 years there has been a dramatic decline in Sudan’s nomadic population, particularly in the east (see Figure 6).

The household interviews clearly indicated that climatic shocks have led to much reduced herd sizes, as elsewhere in the Horn of Africa. The move towards large-scale commercial agriculture has reduced available land for the indigenous population, and periodic dry spells and droughts have made traditional flood-retreat cultivation precarious.

Figure 6: Pastoralists as a percentage of the population by district over time



Our conditions are getting worse. In the past we used to have a permanent doctor and the medical treatment was free. The Gash river was punctual in its flow. Nobody can tell when it will flow and when it will get dry. Water and land distribution are not OK. Land now is given to people who are not inhabitants of the village. The drought has changed all the conditions. Cows have died. We said goodbye to milk, to butter and to all the aspects of abundance. An effort was done last year. People were given permission to plant the government lands and the result was good. We came out with bags of millet and feeds to sell to the owners of the animals. Our men are still working in redbrick

³⁴ Climate data suggests that droughts are intensifying in Sudan generally and in North Darfur in particular.

³⁵ An uneasy and fragile peace prevails. In one of the research villages, a recent incident resulted in a large collective payment being made to avoid active conflict breaking out.

³⁶ Cattle encroachment appears to be ubiquitous, possibly due to the breakdown in symbiotic farming relationships whereby herders were formerly allowed to graze stubble left post-harvest. Whether or not this is the case, it is a main source of tension between the two communities. Communal dispute-resolution mechanisms exist presided over by *Ajawid* committees consisting of elders from the two communities and involving the police. Cattle responsible for the original damage are held in (police-controlled) pens until compensation is paid. But this mechanism seems to function only when police come from nearby towns to impound the cattle.

*kilns, and their children who have expelled from schools help them in that. A great part of money gained from their work is paid to the shopkeeper as a price for the lent goods which were borrowed in advance. **Kassala/Saboon FGD***

Over the course of this evaluation the Kassala villages studied experienced two periods of drought, interspersed with a major flood (as the El Niño effect waned). In 2015 when the first round of interviews was conducted, respondents complained of crop failure ('burning'), a reduction in milk production, and severe dust storms. Sorghum had almost doubled in price (from 200 SDG to 350–400 SDG in local markets). The same was true in West Darfur in 2016 where, again, households complained of crops 'burning' and of getting a third of the yield of the previous year.

*Production is not good not like the last year: mkhamas produced last year eight to nine bags of millet, now I gathered two bags only. I planted sesames but I didn't cultivate it but it will bring 3 kora. Last year production continued to the new season and exceeded with one bag; I didn't take it to the market. This year crops will not take us to the next season but we will make extra jobs. We will rent the cart, month for 100 SDG, and go the forest to bring things. If you find people wants to transfer sorghum you take it and they will give you kora. If the cart needs maintenance you have to fix it – wheel plaster is 25 SDG – and you have to take it to the market to fix it. This year crops will last for three months only. **West Darfur/Haraza***

The drought conditions are consistent with Sudan's situation as one of the countries most affected by climate change. Warming is particularly dramatic in Darfur and South Sudan but is also affecting the East with the biggest spike causing famine in 1984–85.

*The season of rain brought very little rain, and drought prevailed and made life very difficult. We started to buy almost everything; food for us and for our animals. The scarcity of rains affected the production, which had been about 20 bags for the acre (feddan), and dropped to be two or three bags only. Production of dura (our main food), dropped greatly, and the farmers were compelled to sell the dura canes and reeds so as to compensate for the lack of dura. People, who have developed habits of feeding on chicken eggs and meat, could find some solution for their problem, but most of us are not accustomed to it, and, moreover, some think that it causes some diseases. The inevitable expenditure was that which pay for milk. It is our main food, and most of the people buy it. **Kassala/Akla***

Kassala was hit by serious flooding in mid 2016, just after the second round of VE research.³⁷ Despite its severity, the flooding had a positive impact for many, bringing the prospect of a bumper harvest for those only moderately affected. The less permanently settled Beja households (those without brick houses) were able to simply move their traditional shelters away from the flooded area. Counter-intuitively, the less well-off were best able to take advantage of the shock.

The biggest crop pest threat appears to be locust swarms, which are managed – at least in Darfur – by aircraft-born spraying on the request of the affected communities. A number of other insect pests attack the groundnut, okra and sorghum harvests, as does striga, itself an indicator of declining soil fertility. And in Kassala, *prosopis juliflora* (mesquite) is a major preoccupation, invading large areas of the remaining available arable and pasture land.

³⁷ Although the JRP agencies had made preparations to respond to the El Niño event.

2.2.1 Health shocks

Ill health was an issue across the study areas. A discrete study on the full economic cost of ill health to the household was undertaken in West Darfur (accompanying a similar study in North Kivu, DRC). While the methodology for the study is outlined above, a detailed account and results are published in a separate report.^{38,39}

The health study also looked at the impact of health insurance in Sudan as a mechanism for reducing the cost burden. Health insurance has seen a major uptake in the villages that were part of this study, and across Sudan generally (see Table 4). Two of the study villages had a much smaller percentage of overall households with insurance, however, allowing for comparison.

Whilst health insurance did make a difference to cost, it was marginal compared to the overall sum. As the major costs associated with episodes of ill health are lost income and travel and accommodation, reducing the actual cost of ill health is welcome but it does not change the nature of the shock. If we look at the main causes of illness across the five villages it is likely that malaria reduction would make a major difference, followed by good water and sanitation. Functioning health facilities in the villages (meaning no travel and accommodation costs) would bring a major benefit, and prevention would make the biggest difference of all.

Table 4: Impact of ill health on food security

	USD		% of potential income	
	Nur al Huda	Haraza	Nur al Huda	Haraza
Typical potential annual household income	\$1,550	\$1,550	100%	100%
Direct health expenditure (Western only)	\$46	\$171	3%	11%
Indirect health expenditure (Western only)	\$94	\$182	6%	12%
% lost income from ill health	\$75	\$213	5%	14%
Expenditure on non-Western health care	\$10	\$70	1%	5%
Total cost of ill health	\$225	\$636	15%	41%
Income, net of health expenditure	\$1,325	\$914	85%	59%

These are conservative estimates based on a household with three working adults. Even under such conditions, ill health imposes a heavy 'tax' on the household and severely impedes its route to resilience.

³⁸ Levine, S. and Kusnierek, A. (2018) *Counting the Cost: Assessing the Full Economic Cost of Ill-Health in West Darfur, Sudan*, Valid Evaluations.

³⁹ The economic burden of ill health is high. Even where households have no particularly serious health problem, sickness is costing them around \$250–600 per year, depending on where they live: this is equivalent to between 15% and 40% of their potential annual household income.

Table 5: Cause of ill health by village

Cause of illness	Faiga	Haraza	Hasabona	Dorti	Nur alhuda
Malaria	38%	64%	80%	67%	65%
Infections	33%	20%	9%	16%	21%
Stomach pain	2%	3%	2%	6%	5%
Gastric problems	14%	3%	7%	11%	6%
Injuries	5%	4%	8%	3%	1%
Hypertension	0%	1%	0%	0%	1%
Complications with maternity	3%	1%	1%	5%	1%
Other	15%	9%	14%	6%	13%
% of households enrolled in health insurance, by village by year of enrolment					
2011	4%	0%	1%	0%	3%
2012	13%	2%	1%	2%	7%
2013	21%	5%	3%	2%	7%
2014	45%	7%	3%	6%	25%
2015	60%	8%	9%	26%	37%
2016	70%	31%	19%	60%	63%
2017	75%	39%	23%	72%	69%

Source: Levine and Kusnierek (2018).⁴⁰

2.3 Gender

Initial indications from household interviews suggested that the role of women in traditional pastoralist Hadandawa society was changing as result of successive shocks, and was assumed to be on two levels: their economic contribution and their role in decision making. Efforts to verify this through a discrete study (to accompany a similar exercise in North West Pakistan) was hampered by a limitation on the type of question the research team would be allowed to ask and the manner in which these questions were asked (interviewer bias).

Despite these drawbacks, and the thinner evidence and insights than was hoped for, a number of conclusions can still be drawn.

First, there remain severe restrictions on women's rights and their role. Early marriage and Female Genital Mutilation (FGM) are the norm; most girls marry soon after their first period and are expected to give birth soon after. Movement outside the community is restricted and cannot be undertaken unless accompanied by a male (although this is less the case near urban centres).

⁴⁰ Levine, S. and Kusnierek, A. (2018) *Counting the Cost: Assessing the Full Economic Cost of Ill-Health in West Darfur, Sudan*, Valid Evaluations.

Secondly, a patriarchal tradition means that men have the decision-making power and are the head of household responsible for supporting the family. Men and boys and even male infants are treated preferentially from birth.⁴¹

Thirdly, FGM is universal and was practised on all girls in the research villages.⁴² Women do not complain openly about this practice (a very sensitive topic and difficult to discuss), except that some women/girls have complications while giving birth.⁴³

Fourthly, early marriage is still the norm, usually at 15 and to a first or second cousin, and is arranged by the father. Newly-weds are expected to give birth within the first year of marriage. Whilst the age of marriage may be creeping up slightly (from puberty to 15), girls are still taken out of school once they have their first period.

Fifthly, girls' education is limited but growing. In localities where there is a (Koranic) school, girls may attain 8th grade; it would be extremely rare for any of them to go to university.⁴⁴

- Women's economic role is expanding, but overall is still very limited.
- Land rights and inheritance are predominantly patrilinear although this is subject to local differences.⁴⁵
- There is no gender differentiation in times of crisis or shock – everyone is equally responsible *in extremis*.

⁴¹ When a midwife delivers a baby, she is paid more for a boy than for a girl, and a boy's birth is feted far longer than would be the case for a girl. Likewise, a boy's circumcision is a cause for celebration, whereas that for a girl is hushed and only witnessed by women. The husband decides on the names of his children, how and if they will be educated and who their spouses will be. Newly married women gain their voice (i.e. can share their opinion with their husband on any matter) only after their first child is born.

⁴² Girls as young as three years old undergo FGM, with most of the genitals being removed and vagina stitched with only a little opening left. Women are also re-circumcised after giving birth.

⁴³ A few mentioned that they would like it to stop; however, it is not possible because men would not marry an uncircumcised woman, and were he to do so unknowingly he would have good grounds for immediate divorce.

⁴⁴ As all the financial responsibility to sustain the family is on the shoulders of men it is not considered worth educating a daughter. People said that if high school was available closer to home they would send their daughters there; however, very few mentioned the potential benefits of higher education for women. Traditional barriers to unaccompanied travel are a further impediment.

⁴⁵ Women get their share of land inheritance according to Sharia, which seems to mostly be determined by the (male) head of the village. In some places women clearly cannot own land or camels; in others, women do appear to be able to own land. Women can take the smaller livestock as inheritance, and presumably gold and other possessions. If they have small children, they have to marry the brother-in-law for economic support/protection. This is not the case if the children have attained adulthood.

3. The characteristics of resilience

Resilience at the household level depends upon a number of factors. In Sudan, these can be summed up as:

- The willingness and ability to *diversify and adapt* (adaptive capacity);⁴⁶
- Building, maintaining and accessing *social capital*;
- Building and nurturing *family support*; and
- Access to, and provision of, *assistance*.

Section 3.1 and Section 3.2 deal with the first two of these factors. Section 4 on assistance follows and this also includes analysis of the multi-year instrument. Family support is split across social capital (Section 3.2) and assistance (Section 4).

3.1 Adaptive capacity

The opportunities for diversification and adaptation to a changing environment are limited in both research areas, and in West Darfur far more so than in Kassala.

- In Kassala, productive agricultural opportunities are shrinking as a result of climate change, commercialisation (assisted by central government's powers to appropriate land at any time) and population in-migration resulting from the changes in land use.
- In West Darfur, conflict, climate change, and economic neglect are the main impediments.

Adaptation and diversification entail risk and access to liquid resources. In a situation where certainty and liquid capital are scarce commodities, risk – clearly – is a feature of everyday life. Unsurprisingly, therefore, aversion to risk can dominate decision making. As a result, for the majority of the adult population investment is in manageable, familiar risk such as petty trade or shop-keeping; sales of farm surplus; charcoal production or firewood collection; seasonal flood-retreat farming; labour migration on a temporary or long-term basis; or 'reliable' productive assets such as a cart or a horse or donkey to pull it.

In West Darfur, urban migration is mentioned frequently as a *temporary measure*, and often directly related to the ongoing conflict. But the opportunities to move between geographical areas for income are limited, partly because of the lack of economic development in the region, partly because of insecurity and also because of distance.⁴⁷ Migration in West Darfur, therefore, is often very localised.

Populations in the major urban concentrations in Darfur such as Nyala, el Fasher and al Geneina have grown as a result of conflict-induced internal displacement, imposing huge temporary and long-term strains upon basic services, water supply in particular, as many choose to settle. But the growth in urban population has not brought a concomitant increase in employment opportunities. Pantuliano *et al.* (2011) noted that:

Rapid urbanisation has been accompanied by growing numbers of poor and vulnerable urban dwellers – a significant proportion of whom are displaced populations – who live in abject poverty, are vulnerable to a range of threats to their physical and mental wellbeing and face acute challenges in accessing livelihoods, basic services and land. The economic boom of

⁴⁶ Bénédicte (2013) placed adaptive capacity as one of the constituents of a resilient existence. Bénédicte, C. (2013) *Towards a Quantifiable Measure of Resilience*, IDS Working Paper 434, Brighton: IDS.

⁴⁷ Although there appears to be no impediment to people migrating to Khartoum for temporary work or medical treatment.

*recent years has mainly benefited an emerging economic, social and political elite, and has offered very little to the majority of the urban population.*⁴⁸

The population of Nyala in South Darfur was estimated at around 300,000 at the time of Pantuliano *et al.*'s report, having already experienced rapid growth as a result of the Darfur conflict. A recent estimate puts the population at 566,000,⁴⁹ with a large proportion living in informal settlements (IDP camps).

As noted elsewhere in this report, DFID's funding strategy has recently focused on multi-year grants to support the development of infrastructure in Darfur – in particular, water – to cope with the challenges of both urban and rural life, to reduce conflict and mitigate the urge to migrate internally and internationally. This complements the Taadoud initiative and other similar recovery and resilience programmes.

Labour migration to more distant locations such as Khartoum, Shendi (a marketing hub north of Khartoum, and a centre for midwifery training), the cotton fields of al Gezira or the oil fields of the transitional zone has occurred over many years, and is often referred to in the VE interviews as having been undertaken by extended family members or, in a minority of cases, direct household members. And sometimes the movement is deliberately temporary, and can be well rewarded.

*Sorghum produces five bags, peanut four bags, millet three or two and a half bags and sesames 10 kora [kora is 0.5kg] and this is not enough, so in summer I go to Khartoum to work as a welder with MTN company by a weekly contract and they pay me 40–50 SDG per day. **West Darfur/Haraza***

Urban growth has been far less dramatic in Eastern Sudan,⁵⁰ but the demand for essential services, especially potable water, is no less intense. There are frequent references to the failure – temporary or permanent – of community wells, and the need to purchase water transported by truck or donkey cart from community catchments, from nearby towns or from rain- or flood-fed facilities. This imposes a major household budgetary burden for a significant part of the year, with a barrel costing between 10 SDG and 20 SDG.

*As for drinking water and water for domestic use, we buy a barrel every other day for 15 pounds (SDG). This is during the dry season, but in autumn, the time of the Gash flood, the barrel is purchased for ten pounds (SDG). Water is brought from the Gash area by a man who has been practising this trade for a long time. **Kassala/Eissa***

DFID funds an urban water development programme in three eastern states, including Kassala (and complementing the JRP) to address this need, identifying the historical lack of access to potable water, the growth of the urban population in Port Sudan in particular, and the need, as in Darfur, to reduce migration both internally and internationally.

In Kassala, in contrast to West Darfur, urban migration appears to be regarded as a *permanent option*, although it might require ambition and foresight to achieve the goal.

⁴⁸ Pantuliano, S. *et al.* (2011) *City Limits: Urbanisation and Vulnerability in Sudan*, Synthesis Report, London: ODI.

⁴⁹ <http://worldpopulationreview.com/countries/sudan-population/cities/> (accessed 4 June 2018).

⁵⁰ Census figures are unreliable, with some sources suggesting static or, in some cases, negative growth.

*At first I [obtained] a national number, I made it from passport centre in Kassala. I went alone and said it will serve me in the future. I heard about the land tender from my relative in Kassala. I submitted a bid and drew the lot and found a [plot of] land in Al Andalus neighbourhood. It has no services, but I took the papers. If my son becomes a doctor, I will let him work in the city, and reject here. **Kassala/Eissa***

As in Darfur, the decision to migrate is closely linked to supplementing household income. The decision to move, however, seems to have less far-reaching consequences, possibly because the distances are shorter and the opportunities greater. It might also be a function of the Beja pastoralist heritage which sees no impediment to the whole family moving on a seasonal basis. The proximity of Port Sudan for paid labour, and the irrigated farmlands of New Halfa and al Gezira for both grazing, fodder and paid labour, and the capital, Khartoum, present far greater opportunities for seasonal and longer-term labour and income generation, although income status has a part in the calculation.

Investment in education for both children and young people is seen as desirable and possible, liquid assets permitting. The objectives of obtaining an education, migrating and diversifying can combine in the minds of many, and can be confounded by the risk they entail.

*My guts' feeling is that our future is bound with our children's schooling. Agriculture has no future in this time of drought. I can see clearly that my opinion about agriculture is proving to be right and correct. Rains are getting less, and consequently the sustenance of the family lies in sometimes far away from animals and crops. **Kassala/Akla***

And they might combine in surprising ways:

*During study time our son went to Habila for study, but the distance is so far and sometimes he came home late. Sometimes during the rainy season the valley floods with water and he refused to go to school. His father forced him to go to school, so he escaped away towards Nyala and we didn't know his place for seven months. Suddenly we heard that he had travelled to Khartoum after a working period and gaining money in Nyala, and now we heard that he is studying in the university there in Khartoum. Beside that we still send him some money. **West Darfur/Nur AlHuda***

Charcoal production is the default off-farm activity for many of the households interviewed, this despite tree-cutting being restricted by force or through government restriction.

*Wood and charcoal are becoming a problem. In the past we used to fetch wood from dead trees nearby then we started cutting the trees; now we are only allowed to fetch wood from dead trees in the distance. It is about one or two hours walking but mostly towards the border with Chad. It is the pastoralists who are preventing us from cutting trees. **West Darfur/Faieg FGD***

Options to diversify present themselves, but might not be taken advantage of, for cultural reasons. While many Beja farmers have practised flood-retreat cultivation on the Gash and Atbara river plains for generations, and have consumed the fruits of the river, they might not have considered a permanent riverine existence as an option as fishing and consuming fish is culturally taboo.

And adaptation and readjustment occur as the wheel of fortune turns.

We have in fact been displaced from our houses, by the flood of the Gash river. This was four years ago. As the scarcity of rain was a bad evil, but also more rains than enough was a worse evil. We were not only moved from our houses by the floods, but the flood had also taken the lives of some of our dear ones.... When we returned we found all the land was well irrigated and ready to be cultivated.... The land became green all over, and our men bought additional animals. We rebuilt our houses, and the sorrows of the past started to fade away.
Kassala/Akla

3.2 Social capital

Social capital – help from family, friends, neighbours and the community – are probably the greatest contributory factors to coping observed in this evaluation. When things go wrong or there are communal shocks, people have to rely on these networks.

As a consequence, great importance is attached to the links, both familial and political,⁵¹ that accrue to households and communities, and it is these links that often see these same groups through difficult times and which enhance good times.

In the context of a clan-based system such as the Beja population of Kassala, and, to a less marked degree, West Darfur, social capital is strongly related to clan and 'tribal' affiliations.

The assistance provided by funds from DFID and other humanitarian partners is rarely attributed overtly to a particular entity (there is frequent mention of 'government' in Darfur and 'organisation' in Kassala, although local NGOs are more likely to be acknowledged by name). However, the assistance provided by external agencies is seen to bolster social networks and to incrementally empower women in particular, helping to take them beyond their traditional roles in the community (hut-building and reinforcement, cooking, etc.).

Communities place a strong emphasis on their self-help obligations:

In our village everyone is at the same level, but people help with the little they have, we face the same problems. **West Darfur/Hassabona**

This self-help applies informally as a cultural norm. This is particularly pronounced in Kassala where, as already mentioned, villages are ethnically homogeneous and family ties very strong. There are both implicit and explicit obligations to assist those in short- or long-term need, either through individual donations, or through communal collections or through formal associations such as community Savings and Internal Lending Communities (SILCs or 'boxes') established with INGO support.⁵²

In West Darfur, this support network extends beyond the village to embrace surrounding communities. There are many references to the solidarity felt between communities, especially in times of conflict. And the social capital built up through support to the community has its rewards:

⁵¹ Sheikhs, for example, feel a strong duty of care towards their particular client group.

⁵² *If you do not have money people help you, and sometimes they collect money from the people in market during the market day. Before the problems we had a box, every Friday we pay 5 SDG, the village is divided to two places one in the south 25 persons and the north 35 persons [women and men], you may take a loan from the box but you return in additional value, if you take 100 SDG you return it 110 SDG in specific time. Sometimes they buy sugar and distribute it to the elder people, sick people and weak people. If someone is sick and need to travel for treatment they help you.* **West Darfur/Faieg 14R2**

*One time my husband Yahiya [a butcher in the market] faced a problem: the Arabs stole a camel and brought it to him and he bought it from them. The thief and the camel owner made an agreement with each other to take money from my husband two times. They made a police case in Morni, and they told them that they have to bring the thief, and they said that the thief is not existing, they transferred the case to Omshalalia and the judge asked them to pay the camel price. My husband and the butchers were seven. They divided the cost and every one had to pay 13,000 SDG. My husband Yahiya doesn't have this amount of money but the villagers helped us: the women paid 10 SDG, and his brothers from Khartoum sent him 3,000 SDG, and his sister sent 2,000 SDG from Khartoum. Our neighbours from other villages also helped, I don't know how much was the price, they collected it and gave the money to the Arabs. My husband Yahiya is good person and he helps all people. That's why all people helped him. **West Darfur/Haraza***

The social capital of mutual assistance can be built in many ways. First and foremost, it is built within the nuclear family. Secondly, it is strengthened through assistance to the extended family (and, in the case of the Hadandawa Beja, the village). Thirdly, it is built within and between communities. Fourthly, it is built between communities and their traditional leaders and surrounding authorities. The role of the sheikh is very significant in a situation where statutory authority exerts its power in a piecemeal manner. Similarly, where the reach of government is limited, and engagement weak, built social capital lies with the communities' ability to mobilise the security forces to protect threatened assets, mostly field crops and livestock. But sometimes the relationship-building efforts bear few rewards.

In Kassala, the support of the nuclear family for the extended family and the community can bear fruit in a number of ways, not least in providing earnings opportunities and remittances in the lean season or other times of stress, and in providing temporary support if remittance channels break down:

*My husband works in a shop in Port Sudan town, and he comes here every two months. He lives with my aunt and her married son in one house. My husband has nothing to do with agriculture. He never tried it.... My husband sends us our petty expenses monthly, but if for any reason they are delayed, my brothers would come to my aid. My aunt herself gives me a big hand from time to time. She helps me with some daily needs, such as sugar, oil, coffee and biscuits for my children. My husband sends the money through the cell phone to my brothers and they buy our needs. **Kassala/Eissa***

And built social capital provides access to credit and repayment, on reasonable terms, in difficult times:

*With the help of Jasmar organisation we constructed a very useful scheme. We called it the Pregnant Woman's Fund. Every lady in the village pays ten pounds (SDG) monthly, and the money is used to help ladies who give birth to their children in the village or in Kassala. The money reached more than 4 billion pounds (SDG), and it is kept with the village midwife who advises ladies who need an operation to go to Kassala. This money is not only used to help the pregnant ladies, in spite of the name, but it is given as a loan to whoever needs it, on condition that it is paid back. I, myself, was given an amount of money when I gave birth to my youngest daughter. **Kassala/Eissa***

4. Assistance and multi-year humanitarian funding

As outlined in the previous section, people receive a lot of assistance from immediate family, extended family, neighbours and tight-knit community members. This is manifested in several ways:

- Routine help from the immediate family;
- Occasional help from the extended family;
- Remittances from husbands and children;
- Labour assistance from neighbours;
- Routine sharing of essential commodities;
- Savings and loans schemes;
- Communal help in extremis; and
- Communal assistance in times of stress.⁵³

Aid is an important part of this assistance, although much more so in Darfur than in Kassala.

In Darfur, people have grown accustomed to receiving humanitarian aid throughout years of conflict. Almost all of the households interviewed reported having received food aid during displacement and initial return, although almost all also reported that this assistance had stopped a couple of years prior to the panel survey. In Kassala, food aid is attributed to the JRP, but not to a specific agency.

This is supplemented by a number of other inputs, such as livestock and nutritional care provided by DFID-funded partners and others in both Darfur and Kassala.

Finally, various government assistance efforts are reported, the most prevalent being from the Zakat department that helps people on an annual basis.⁵⁴ Other types of government assistance include additional land allocation in Kassala and crop spraying in Darfur.

4.1 The DFID multi-year programmes

Both the Taadoud and the JRP were evaluated in the course of the VE thematic evaluation: Taadoud by TANGO, an external company focusing on resilience measurement and the JRP by the FAO evaluation department according to UNEG norms.

The Taadoud evaluation concluded that in the two to three years of operation all targets were met and some were substantially exceeded (see Annex 6 for the logical framework indicators). This was attributed to changed agricultural practices and farmer behaviour.

Whilst the headline figures are impressive for a programme largely aimed at behaviour change, some caution is needed in interpreting the results.

- Whilst crop yield had increased by a third, with a concomitant impressive reduction in household hunger there was no detailed analysis of how new agricultural practices had assisted this improvement.
- Land use increased, as did the use of fertiliser and inputs, but there was no analysis of rainfall in a rainfed agricultural system.
- There was no control by which to measure the successes attributed to the project.

⁵³ See Annex 5 for greater detail.

⁵⁴ An amount is distributed to each community, which the sheikh helps to allocate according to need.

The VE analysis suggest different causes of vulnerability in Darfur, with the changing climate and complex, feudal land-owning structures as the main impediments to improving household income and food security, coupled with declining soil fertility and pest problems.

Farming practices in Darfur are reportedly highly innovative and adapted to context (for example, the exploitation of the Goz sandy soils for groundnut and millet). The main impediment to change in Darfur is '... failure of political and economic management at the macro-level'.⁵⁵

While the efforts to re-establish and support the *Ajawid* community committees and conflict-resolution groups is admirable, the panel interviews indicate that these long-established conflict-resolution mechanisms are not trusted following years of conflict, and that attempts to resolve disputes are confounded either by lack of application by one side or the fatigue of the committee members.

The JRP evaluation is more realistic.

- Any observed impact on stunting is to be treated cautiously given the short time frames involved.
- There is an observable positive impact in terms of improved nutritional practices (confirmed by VE data).
- Agricultural yields improved following prosopis clearance.
- The support to agriculture was compromised by some overall programme design issues, notably the inclusion of more villages over a wider area than was intended.

The evaluation concludes that as a programme set up to bolster resilience to drought and flood focused on stunting, it was confused as a result.

The household interviews for this thematic evaluation noted several positive outcomes from the JRP on the nutrition front, and there was an observable change in diet in some villages. Unlike the Taadoud programme, where the results of nutritional education were indeterminate, the JRP prompted clear changes over a quite short period.⁵⁶ There were no data to suggest this had an overall observable impact on stunting or wasting.

Less positively, many of the villages served by the JRP and subject to the VE evaluation identified water as their biggest need. Because water supply was funded through the Water for Three States (W43S) grant, to avoid duplication the JRP had to ignore beneficiary opinion and implement the nutrition project agreed with DFID, despite the W43S project not reaching many of the communities served by the JRP.

⁵⁵ *Ibid.*

⁵⁶ The nutritional practices in the Beja communities were extremely traditional, and probably ripe for change.

4.2 Multi-year funding in Sudan

The JRP as initially conceived has two important messages for the multi-year approach in Sudan.

- 1) Design: The initial design and targeting assumed a population density based on secondary data. Finding that many initial project assumptions were faulty, MYHF permitted the alteration of the programme to adapt more closely to need. This would not have been possible with annual grant funding.
- 2) Time frames: Not even MY funding as presently conceived could realistically hope to resolve a stunting problem. However, the JRP approach did have a discernible impact, and, assuming continued MY funding, could hope to address the underlying nutrition issues in the longer term.

Sudan's political context, both internal and international, almost guarantees that MY-funded humanitarian programmes become development by another name. Programmes such as the JRP and Taadoud are not necessarily responding to shocks but to long-running structural and political problems (and, in the case of Darfur, conflict). MYHF allows them to make some headway towards responding to expressed needs and bolstering community resilience in a difficult operational environment.

5. Research questions

5.1 EQ1: Does MYHF help build resilience?

The households and villages followed in this evaluation could not be described as resilient.

The main *covariate shocks* across the cohort were caused by conflict (Darfur) and climate (Darfur and Kassala), with ill health being by far the most important idiosyncratic shock. Farmers in Darfur have suffered major and localised conflicts since at least 2003, coupled with 'traditional' cattle raiding before and since. The Beja (agro-) pastoralists have struggled to cope with the effects of climate change (and, in some cases, conflict and flight as refugees), to the degree that agro-pastoralism is now the default way of life. In both West Darfur and Kassala, these covariate shocks have accelerated urban drift, with the cities in Darfur in particular having expanded dramatically in the past 20 years. These urban options, whilst superficially attractive, also seem unreliable. Many households report fluctuating incomes from family members who have gone to towns to work, and recent studies of the biggest cities in Darfur suggest the IDP camps/informal settlements do not offer very attractive alternatives.

The *continuing conflicts* in Darfur have disincentivised asset accumulation (especially livestock) with the constant threat of cattle raiding by 'Arab' neighbours. Cash assets are also at risk, with calls on the community to settle inter-communal disputes by restitution. Most of the villages in the Kassala cohort had suffered dramatic livestock losses in the 1984 drought and famine and, with government encouragement had settled near the Gash and Atbara rivers to practise flood-retreat agriculture. Initial good years turned to bad – including in 2015. This has led most either into charcoal production, which appears to be the main livelihood for many; to seasonal labour migration to the big commercial agriculture schemes at New Halfa and al Gezira, and to Port Sudan; and/or to distress strategies such as taking on debt (from family and from commercial lenders), eating fewer meals and seeking food aid.

Health shocks are a major drain on household budgets, perhaps more so even than conflict in Darfur. A study for this thematic evaluation⁵⁷ estimates that between 15% and 40% of household income is spent on treating ill health (not including catastrophic health costs). With income and assets accumulation so tenuous, this additional burden suggests a highly exposed and precarious existence in both places.⁵⁸

Social ties are strong despite all the stresses, and social capital is a prized 'asset'. Beja society is close knit in every aspect of life – family and neighbours pitch in to help build the huts, they share milk, they share seeds, they contribute if there are medical costs, or education costs, at festivals and so on. If a relative is doing better, perhaps working in town, then they send regular remittances. And there are formal savings schemes for a variety of purposes that also depend on mutual cooperation and trust.

This is also true in Darfur. They too have a variety of savings and loans schemes that are used for medical costs, festivals, births, deaths and marriages, and when things go wrong. The villagers also routinely club together when faced with extortion by Arab neighbours.⁵⁹

⁵⁷ Levine, S. and Kusnierek, A. (2018) *Counting the Cost: Assessing the Full Economic Cost of Ill-Health in West Darfur, Sudan*. London: ODI and DFID.

⁵⁸ As is explained in some depth in Section 2.2.1, the health study was only in West Darfur. However, it is clear from household interviews in Kassala that health-care costs are an equal concern for families, so although it is not possible to put a figure to the burden of health care in Kassala it is certainly highly significant.

⁵⁹ In one case a young man was shot by raiders trying to protect goats and the villagers, and the sheikh paid for medical costs even when he had to go to Khartoum for specialist treatment.

The *Ajawid* committees play an important, if circumscribed mediation role in West Darfur. Prior to the conflict these committees would arbitrate in disputes between the settled farmers and livestock herders. During the conflict they largely fell into abeyance, but in some villages they are being resurrected.⁶⁰ Despite their current weakness, their restoration gives some hope for the strengthening of resilience through stronger communal and inter-community ties.

There are several examples of *adaptation* to cope with particular shocks. During the 2016 floods in Kassala, families moved their households wholesale (being designed for portability). As the communities were reliant on flood-retreat agriculture, the inundation was seen positively by the majority despite the damage wrought.

Both DFID-funded programmes were to some degree experimental and, while they targeted some relevant resilience-building activities, they were of insufficient scale and duration to have a transformative impact on the existential threats of conflict, post-conflict recovery and climate change.⁶¹

MYHF in its present form in Sudan, therefore, can hope to prompt incremental change at the local level – better nutrition, reduced stunting and agricultural adaptation to a changing climate at the local level – but it cannot be expected to build resilience on a regional scale. But even these relatively small changes require more time than the current funding envelopes provide for.

5.2 EQ2: Contingency and early action

The Sudan programme had the largest contingency of any of the four countries studied for this evaluation, with roughly a quarter of the resources in the business case reserved for unforeseen emergencies.

As it turned out, the funds were used for two large emergencies: the influx of refugees from South Sudan and the 2015–16 El Niño event that caused widespread drought and flooding. Its biggest contribution was to supplement the Sudan Humanitarian Fund (SHF).

As noted in Section 1.3, DFID had two concurrent business cases and contingency provisions for humanitarian action, the Sudan Humanitarian and Innovation Programme (SHIP) and the Sudan Humanitarian Assistance and Resilience Programme (SHARP) from which the MYH projects were financed.

The SHARP – the primary interest of the thematic evaluation – had £21m over a three-year period (roughly £7m per year). In 2014 that £7m was used exclusively to top up the SHF, which, as already noted, DFID has supported enthusiastically since its inception). In 2015 the various contingencies were allocated according to Table 7, below.⁶²

⁶⁰ Unfortunately the breakdown of trust during the conflict means they are less well viewed, and quite often their decisions (usually about compensation for destroyed crops) are not respected.

⁶¹ And it might well be asked whether outdated farming and feeding practices or poor governance and negligible investment are the true barriers to resilience.

⁶² Both the 2014 and 2015 allocations were made in September of the respective years.

Table 7: Humanitarian Contingency Funds allocations for Sudan in 2015

	Budget	Proposal	Partner/mechanism	Funds remaining unallocated
SHARP CONTINGENCY (203387-107)	7.5			
		5	SHF	
		1.85	South Sudan Refugees	
Total funds remaining:				0.65
SHIP CONTINGENCY (204936-104)	2			
		0.75	WFP UNHAS	
		0.75	S3M	
Total funds remaining:				0.5

Again, the major share went to the SHF, although there were also funds made available to the refugee response.⁶³

The submission setting out the case for the disposition of the contingency funds noted that:

1. The allocation of SHARP contingency funds, £7.5m of the total amount, should be guided by the principles for use of contingency set out within the original business case; specifically that funds would be used in the event of:
 - a. Large-scale acute needs arising from a conflict-related rapid onset crisis;
 - b. Large-scale acute needs arising from a natural disaster-related rapid onset crisis;
 - c. New needs identified as a result of lack of funding, access to new areas.
2. While there have been no new significant acute needs arising as a result of a sudden spike in conflict or natural disasters, there continues to be a justification to allocate the contingency and other funds on the basis of:
 - a. Funding gaps to respond to ongoing displacement. Our assessment of established partner performance is that there is scope to absorb further funding and that there are critical partners, in part or wholly funded by DFID, who are able to effectively utilise additional funding.
 - b. Ongoing needs as a result of the continued crisis in South Sudan. Whilst the signing of the latest peace agreement between the Government of South Sudan may represent a fragile foundation for further stability, tens of thousands of refugees from South Sudan are likely to remain in Sudan for the foreseeable future.

In 2016 the allocations were made somewhat differently, with roughly £3m in contingency being allocated from the SHARP and £5m from the SHIP. The £3m breakdown included:

- £1m for the Taadoud consortium to respond to the El Niño event in Darfur.
- £450,000 for Zoa International to respond to water needs in Kassala (arising from the El Niño event).
- £1m for the JRP to respond to the El Niño event in Kassala.
- £0.3m for UNICEF to procure and supply ready-to-use therapeutic nutrition food (RUTF).⁶⁴

⁶³ These funds were transferred to a separate, regional response business case dealing with the refugee crisis, and ultimately allocated to UNHCR and WFP.

The submission for the 2016 contingency expenditure notes that '... DFID Sudan currently holds £7,389,414 unallocated funds from within the SHARP and SHIP business cases, which need to be allocated by the end of the financial year when the business cases close...'. This neatly illustrates one of the major tensions in the use of contingency in Sudan. There are clearly unplanned needs such as upsurges of violence or climate events; however, these do not necessarily happen on an annual basis.

At the same time, there are disbursement pressures within DFID. Having large amounts of funding unspent is unnerving for those in charge, especially in countries with clear acute and chronic poverty. This tension is resolved in Sudan by allocating the lion's share of the contingency to the SHF. In extreme circumstances (such as the El Niño event) the contingency is allocated differently, usually to support existing partners, and earlier in the financial year (July in this case): but the decision is driven by both bureaucratic and humanitarian concerns.

5.3 EQ3: Value for money

A consistent theme in partner feedback has been that MYHF allows them to design more effective programmes, through which they can learn, evolve and adapt over time to maximise efficiency and effectiveness gains, enabling:

- Better analysis – partners have more time to study the context more carefully and use this in programming;
- Development of longer-term relationships with the same population groups, leading to more participatory approaches; and
- More effective strategies.

It has been difficult to establish with certainty the value-for-money aspects of the two MY programmes in Sudan. Limited access for the project team meant that key informant interviews were less frequent than planned, hampering the VFM exercise in particular. These impediments furthermore dampened any meaningful dialogue with the funded partners (which had proven far easier in the other countries researched).

The two consortium programmes did demonstrate aspects of the efficiency and effectiveness gains outlined above, however.

- The **Taadoud consortium** commissioned several pieces of operational research, aimed at helping them to better understand the drivers of resilience. Tufts University was engaged to look at aspects of resilience in the targeted populations in Darfur, from which emerged an index showing how people's ability to rely on farming and livestock ebbs and flows in better and worse years, and identifying a significant recovery gap in West Darfur. This and other insights gained from the quantitative work undertaken by TANGO fed into the design of the second phase of Taadoud.
- The **Joint Resilience Programme** had a six-month design phase not normally available in a short-term project, which proved essential (as many of the early assumptions on demographics turned out to be wrong) and allowed the JRP to reconfigure the programme to better address the target population's needs.

⁶⁴ The total additional funding given to the JRP for the El Niño response was £2.4m so it is safe to assume that the difference between this figure and that above is the result of an earlier allocation from contingency (the paperwork for which the evaluation has not been privy to).

Value for money is less evident, however, in the premature closure of the JRP. A reduction in stunting in the east could not have been achieved in three years.⁶⁵ With hindsight, DFID either should have not agreed to such an ambitious target – perhaps limiting itself to community action planning for floods – or should have put plans for a continuation in place, based on a realistic assessment of how long it takes to achieve such goals.

Despite a number of attempts on the part of the VE team, the communications difficulties encountered, and the lack of direct access to implementing partners meant that neither project was able to share data on efficiency gains from procurement, administration, recruitment or other areas where potential savings might be expected over a multi-year period.

⁶⁵ Especially since half the project's lifetime was expended on its establishment.

6. Conclusions

DFID is to be commended for introducing multi-year humanitarian financing in Sudan. The crises that generate humanitarian need are long term and complex; mitigating their worst effects and helping people cope with the fall-out is also long term and complex.

The two multi-year financing programmes supported by DFID during the period of study were experimental in nature. They were both consortium programmes and both had ambitious aims – boosting food security in Darfur and reducing stunting in Kassala. In both cases the assumptions inherent in these programmes was that people would be more resilient if these outcomes were achieved.

The thematic evaluation took a twin-track approach – looking at resilience from the perspective of those within the project area and following the programmes themselves. The lack of resilience amongst the two populations under study was stark. In Darfur, years of conflict and displacement have eroded people's income and asset base, and further weakened their tenuous land rights. The lack of trust engendered between the two communities means that low-level conflict continues, artificially suppressing any asset build-up. As a result, there is an annual gap in income that needs to be filled by illegal charcoal production or labour migration.

In Kassala, traditional pastoralists have largely converted to riverine agriculture following devastating droughts and conflict in the 1980s. This livelihood too has become less reliable, and like in Darfur the majority rely on charcoal production and labour migration to make ends meet. Climate change in both places is making agriculture less predictable, and the cycle of floods and droughts can have serious consequences.

Health shocks are the other significant burden and barrier to resilience. A separate quantitative study for this evaluation estimates that between 15% and 40% of potential income can be lost through health setbacks. Whilst there is health insurance, and the uptake is generally good, this accounts only for the cost of the health care itself, not the transport and – most significantly – not the work days lost.

Faced with such deep and long-term drivers of humanitarian exposure, it is no surprise that the populations under study did not become resilient to the major shocks they faced by the end of the MY projects. There were encouraging signs that the projects had helped in the way intended, and that they might be part of some bigger solution. However, with the drivers of conflict and precarity largely political and economic, relatively small and relatively short programmes are not enough to turn back years of neglect and division.

The DFID experiment with MYHF has also produced significant learning, and should prompt careful reflection on how the instrument can best be used. The Kassala MY programme (JRP), led by UNICEF, aimed to reduce stunting. Kassala has some of the worst nutrition indicators in Sudan, and in fact anywhere in the world. Reducing stunting was not possible in three years, however, and DFID did not continue funding beyond the initial programme. This evaluation saw positive outcomes from the JRP, but it was clear the time frame needed to be much longer. In Darfur, conflict and climate heating seem to require far stronger and deeper policy remedies than enhanced agricultural techniques, however well implemented.

This raises the question as to whether MYHF should be used as a substitute for development funding, or whether its aim should be more modest. There are shocks that can be practically mitigated – such as flooding in Kassala, and that do not depend quite as heavily on the political,

economic and social wider context. The research that Taadoud commissioned into the livelihoods of farmers and livestock herders is important for understanding how people cope when times get bad – this too might inform the programme design to reinforce such coping strategies. And DFID has been working outside the MYHF framework on urban issues in Sudan's rapidly growing towns and cities. Much of this urbanisation is driven by conflict and climate shocks and transitioning IDPs to more sustainable urban livelihoods would seem another relevant use of a MYHF-type instrument.

DFID also reserved a significant amount of the Sudan Humanitarian Assistance and Resilience Programme (SHARP) as contingency, to be used for unforeseen spikes in chronic emergencies, or new acute emergencies. In two of the three years this was effectively used as a 'top up' for the Sudan Humanitarian Fund (SHF), a multi-donor UN-managed fund that finances the UN Humanitarian Action Plan. In both of the years this happened, DFID effectively made the top up in the middle of the year when traditionally UN humanitarian plans are revised. DFID is the largest donor and the principal supporter of the SHF and using the contingency for topping up makes sense in this context. With such a fund in place, the disbursement pressure that comes with money 'sitting around' can be eased. Without such a safety valve, a large contingency such as the one held by the SHARP might prove more difficult to manage.

In the third year of the SHARP business case the strong El Niño effect in the Horn led to both drought and flooding in Sudan, triggering several emergency responses, including from SHARP partners. The contingency funded responses by both Taadoud and the JRP, both of which were evaluated positively. Being able to respond quickly with minimal bureaucracy was extremely positive and was possible both because the funding was in place and also there was partner capacity through the MY programmes.

The evaluation was unable to reach a robust conclusion on value for money due to a lack of data. However, both enhanced design and learning aspects were observed in the two MYHF programmes, a feature that has been noted in other country case studies and is only possible with extended time frames.

Annex 1: Land tenure in Kassala and Darfur

Sudanese statutory law,⁶⁶ including Islamic law, overrides customary and community legislation and provides that all unregistered land (estimated to be 90% of the total surface area of the country) belongs to the government. This means that central government is empowered to allocate land as, when and where it pleases.⁶⁷

Land tenure in Darfur

While the 2005 Comprehensive Peace Agreement acknowledged the duty of the governments of both Sudan and South Sudan to regulate land tenure issues, nothing has been done to address the problem in the 'transitional zone'. The Darfur Land Commission, established in 2007, has insufficient technical capacity, financial resources and political weight to push through changes that would go a long way to addressing the fundamental drivers of conflict and displacement in the region. As a consequence, the Khartoum government continues to tacitly or overtly approve the co-option of land by the various political factions in Darfur, ensuring that the dispossessed remain so for the foreseeable future.^{68,69}

Land tenure in Kassala

The conflict between statutory and customary law applies equally in Kassala, where a number of colonial and post-colonial ordinances culminated in the Unregistered Land Act of 1970, which confirmed government ownership over unregistered land and empowered it to use force to establish that right. Thus, customary law (which assigns a number of rights, mostly usufructuary and time-limited according to the duration of the abandonment or non-use of land by the recognised holder) is overridden and populations made potential victims of commercial and political interests.⁷⁰

⁶⁶ Deriving from the colonial Land Resettlement and Registration Act of 1925.

⁶⁷ In rural areas, it is likely that any attempt to reassign ownership under the provisions of statutory law would be met with resistance, land being viewed as owned in perpetuity.

⁶⁸ IUCN Baseline study, 2011.

⁶⁹ However, our interviews consistently refer to land as being either owned or privately rented and seldom, if ever, as a resource owned by government.

⁷⁰ This rule of thumb does not apply in areas where new dam projects are being implemented (Kassala and Gedaref) or in the oil-rich states.

Annex 2: Objectives and expected outputs of the Taadoud and JRP projects

Taadoud

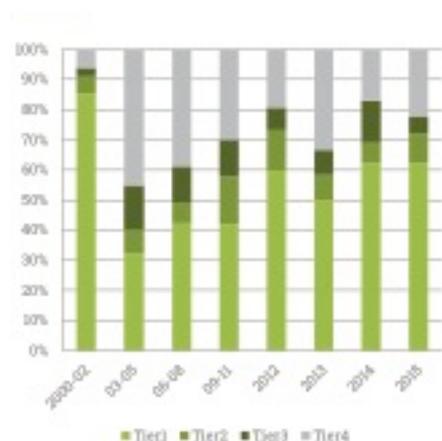
- *Improve household-level food security:* 47,705 farmer and pastoralist households have adopted project-promoted livelihood techniques. Household adoption of improved agricultural practices is increased through a series of training activities and community-level follow-up. In addition, households participate in Savings and Internal Lending Communities (SILC) in order to build their financial assets.
- *Improve household-level nutrition:* 43,456 households have adopted the Essential Nutrition Actions. Household adoption of improved nutrition and hygiene practices is increased through the Care Group Model, a peer-to-peer approach for disseminating information.
- *Strengthen community-level Disaster Risk Reduction (DRR) and Climate Change Adaption (CCA):* 242 community support systems established and/or strengthened. Community committees better understand the key risks faced by each community, and are able to design and implement activities that help mitigate these risks.
- *Respond to El Niño-induced drought:* 16,533 households in areas with high impact from El Niño-induced drought have received timely appropriate support to protect the main streams of income and health. Preparedness and mitigation actions that support households in coping with and/or reducing the impact of El Niño-related shocks. Interventions include dry season cultivation input support, cash-for-work (CFW) activities, livestock vaccination, and malnutrition prevention.

Joint Resilience Programme

- *Develop community-owned action plans* to strengthen resilience to floods and droughts and improve gender equality through improved nutrition, sanitation and livelihoods are implemented. This output was led by WFP and community group participants were supported with a food ration to aid their involvement.
- *Increase access to maternal and child health and nutrition services* through nutrition behaviour change programmes (IYCF), treatment of severe acute malnutrition (SAM) and global acute malnutrition (GAM), food rations and measles vaccinations.
- *Increased availability* of drinking water, use of improved sanitation facilities, and hand-washing practices in Aroma locality through information campaigns and raising hygiene awareness.
- *Increase the resilience of livelihoods to shocks* that impact agriculture, food, nutrition and economic sustainability through introducing some improved grain seeds and supporting vegetable gardening, chicken breeding and goat rearing.
- *Communities are prepared to respond to droughts caused by El Niño* by increasing availability of services in nutrition, health, WASH, livelihood and food security. This was operationalised as an emergency response to flooding in Kassala, consisting of food aid, nutrition and medical support and the provision of NFIs, seeds and tools.

Annex 3: Household earnings

Household earnings sources: south West Darfur cultivators



Fitzpatrick and Young (2015)⁷¹ divide households into:
Tier one (light green) – crops and livestock
Tier two (mid-green) – trade and salaried employment
Tier three (dark green) – gifts
Tier four (grey) – production of charcoal, grass cutting.

In the hardest years, such as at the height of the conflict in 2003, people derived about half their income from what might be thought of as ‘distress’ activities. In 2015, about a quarter of the income of people in south West Darfur came from this type of activity.

⁷¹ Fitzpatrick, M. and Young, H. (2015) *The Road to Resilience. A Scoping Study for the Taadoud Transition to Development Project*, USA Feinstein International Center, Tufts University, November.

Annex 4: Changing lifestyles

In **Kassala**, there has been a gradual transformation in the Beja community from a pastoralist to an agro-pastoralist existence, as pressure on land has mounted with reduced access to pasture resulting in settlement in homogenous village groupings, with the potential benefits that can bring.

When we came here after the flood [in 1988], we received some support from the government: they gave us sorghum and wheat, plastic sheets, cooking items, blankets. We sold our animals to buy palm mats and our men brought our furniture from the mud. The animals were taken to dry lands; it took them three days to transport the animals. Men used to go for three days to bring sorghum, oil, coffee beans and sugar. It was very hard times, we suffered for three long months, then we were fine, but never thought of going back.... We all lost some dear ones during the flood, some of us lost our siblings, parents or husbands. We lost children, women and men.... After we settled, we came to our senses and started funerals to mourn the dead. Even our animals got sick and died and during that time we didn't even know about veterinary doctors, we came to know about that very recently.

Kassala/Saboon FGD 02-R2

In **Darfur**, with recurrent drought and, more recently, high- and low-intensity conflict, the change has been in the form of an agro-pastoralist population seeing an ever-reducing livestock and fixed-asset base and uncertain harvests as a result of weather, conflict and tensions between cattle herders and settled farmers or, in the period of the study, a combination of all three.

*I had many cattle, 11 goats and 20 cows but during the war they took them. They took 11 goats from our village and the cows from Massagami and this was during the civil war. At that time I delivered my elder son and staying inside the house, I was crying and they came inside the house and asked me about the men, when he saw the little baby they left. After they took the cattle they moved to Massagami. They were Arabs. At the time they burned the village, the government came and traced them, but they ran away and left. At the same time some people took the cattle and we have two cottages: they burned one and I was inside the other one – they didn't burn it. Those people when they came they killed my grandfather and a man was killed in the valley and our neighbour was killed in the cow stable in Massagami. None of our cows were returned, and since that time we didn't look for cows, except this goat we just bought it. This is what happened in 1997. **West***

Darfur/Faieg 11-R2

Annex 5: Sources of assistance from family or community

Routine help from the immediate family: Typically the father or mother or aunt or a brother giving money, or livestock, or helping practically in some way.

Occasional help from the extended family: Many households, especially in Kassala, receive occasional help from relatives in towns or cities. This may take the form of a one-off sum of money, or maybe helping by accommodating a child who is studying at a higher level.

Remittances from husbands and children: In both Darfur and Kassala men often travel for work. In Darfur there are a high number of men from households interviewed working in Khartoum, both seasonally and permanently.

Labour assistance from neighbours: In Darfur there are reciprocal arrangements with neighbours for additional labour. In Kassala the village resembles the extended family, sharing many tasks.

Routine sharing of essential commodities: For example, milk in Kassala.

Savings and loans schemes: There are many of these, particularly in Darfur, and they take many forms – support for medical costs, saving for births, deaths and marriages, saving for investment and so on. They are both indigenous and latterly also aid agency supported.

Communal help in extremis: In Kassala everyone is expected to respond (men and women) if there is an emergency.

Communal assistance in times of stress: In Darfur the whole village may come together to pay conflict reparations if needed.

Annex 6: Taadoud logical framework indicators

Indicators	Baseline (2014)	Endline (2017)		
		Target	Achieved	% of target achieved
Outcome-1 Household Hunger Scale (HHS): % households with moderate or severe hunger	32.1 (29.5, 34.8) ¹	27.1	10.8*** (9.6, 12.0)	250
Outcome-2 Women's Dietary Diversity Score (WDDS): Mean number of food groups consumed by women of reproductive age group	3.0 (2.9, 3.2)	4.0	4.3*** (4.2, 4.4)	108
Outcome-3 % communities who have moderate and above absorptive capacity	51.0 (40.1, 62.4)	80.0	77.6*** (68.6, 86.7)	97
Outcome-4 Average crop production per farming household (segregated by crop type)	658 (577, 739)	752	1,110*** (1,055, 1,165)	148
a. Sorghum (kg)	308	339	444	131
b. Millet (kg)	316	347	507	146
c. Groundnut (kg)	285	313	591	189
Output-1.1 % farmer and pastoralist HHs that have adopted at least 6 out of 9 project-promoted livelihood techniques	3.9 (3.0, 5.0)	30.0	24.1*** (22.4, 25.8)	80
Output-2.1.1 % HHs of caregivers with children of 0–5 months who adopted at least 6 out of 9 promoted health, nutrition and hygiene practices	25.4	40.0	72.6*** (67.1, 78.0)	182
Output-2.1.2 % HHs of caregivers with children of 6–23 months who adopted at least 6 out of 9 promoted health, nutrition and hygiene practices	18.9	35.0	56.4*** (52.9, 59.8)	161
Output-2.1.3 % HHs of caregivers with children of 24–59 months who adopted at least 4 out of 7 promoted health, nutrition and hygiene practices	34.1	70.0	83.2*** (81.3, 85.1)	119

¹ 95% confidence interval.

* Statistical significance test from baseline to endline: *** for $p < 0.01$, ** for $p < 0.05$ and * for $p < 0.10$.