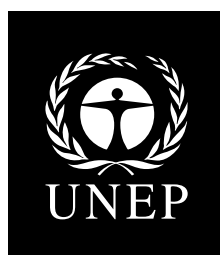




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Strengthening the humanity and dignity of people in crisis through knowledge and practice



**Livestock, Livelihoods, and Disaster Response:
PART ONE: A Review of Livestock-Based
Livelihood Projects in Sudan**

Merry Fitzpatrick, Helen Young

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Acronyms

CAHW	Community Animal Health Workers
CAP	Consolidated Appeals Process
CHF	Common Humanitarian Fund
CPA	Comprehensive Peace Agreement
DCPSF	Darfur Community Peace and Stability Fund
FAO	Food and Agriculture Organization of the United Nations
FEWS NET	Famine Early Warning System Network
FFW	Food for Work
FIC	Feinstein International Center
FSL	Food Security and Livelihoods
FTS	Finance Tracking System
GDP	Gross Domestic Product
HAC	Humanitarian Aid Commission
ICRC	International Committee of the Red Cross/Crescent
IFPRI	International Food Policy Research Institute
IGA	Income-Generating Activity
ILRI	International Livestock Research Institute
IMF	International Monetary Fund
INGO	International Non-Governmental Organization
IOM	International Organization for Migration
LEGS	Livestock Emergency Guidelines and Standards
MLFR	Ministry of Livestock, Forestry and Rangelands
MoA	Ministry of Agriculture
NFI	Non-Food Item
NRM	Natural Resource Management
OFDA/USAID	Office of Foreign Disaster Assistance/US Agency for International Development
OLS	Operation Lifeline Sudan
TOT	Training of Trainers
UNAMID	UN/African Union Mission in Darfur
UNCT	United Nations Country Team
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
VSF	Vétérinaires Sans Frontières
WASH	Water, Sanitation, and Hygiene
WES	Rural Water Corporation
WFP	United Nations World Food Programme

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1. Introduction

Livestock form a large and increasing portion of Sudan's economy and employment sector. As Sudan is prone to emergencies that directly affect livestock, and more importantly livelihoods that depend on livestock, it is crucial that livestock programming prepare for, prevent, mitigate, and respond to these emergencies as effectively as possible. Experience of livestock interventions predate the development of the Livestock Emergency Guidelines and Standards in Sudan, including for example provision of veterinary services (vaccination, treatment for disease), animal fodder, restocking and destocking livestock, etc. Agencies including the Food and Agriculture Organization of the United Nations (FAO), the International Committee of the Red Cross, and a number of international non-governmental organizations (INGOs) and local NGOs, have been involved together with government. Since 2009, FAO have committed to mainstreaming LEGS and aligning livestock interventions they support with the LEGS guidelines. They have done this through training workshops and also campaigns to raise awareness.¹

In Sudan, the Feinstein International Center at Tufts University (FIC) and SOS Sahel Sudan, working as part of the UNEP Sudan Integrated Environment Programme, are supporting a programme of research, combined with policy training, and the promotion of best practice programmes—in particular, best practice emergency livestock programmes, which are based on the wider international Livestock Emergency Guidelines and Standards. A 2012 workshop conducted on this process has generated interest in government as well as in international and national agencies.

This paper is Part One of a two-part review of emergency livestock programming in Sudan. Part One provides a review of emergency livestock interventions in Sudan, including their recent history, the types of projects, the frameworks for funding and response, and finally related trends, opportunities, challenges, and constraints. Part Two of this review includes three case studies of emergency livestock programmes in North Darfur, Kassala, and Blue Nile States, which review livestock programming, identify lessons learned, and highlight examples of best practice and innovative programming. The final section of Part Two provides detailed lessons learned and recommendations.

This review begins by setting the context with a brief historical overview of the importance of livestock in the Sudanese economy and the livestock-related

emergencies that threaten this sector. The impact of livestock emergencies on both the general economy and individuals using livestock-based livelihood strategies is demonstrated. A key tool in humanitarian response to livestock emergencies is the Livestock Emergency Guidelines and Standards (LEGS). The development of the approach and its introduction to the government and humanitarian community in Sudan is described, providing a framework for the rest of the review. Within this context and framework, this review analyzes the humanitarian programming applied to the many livestock emergencies in Sudan during the period 2009 to 2013, focusing primarily on the period 2010 to 2012.

Trends in proposed and funded programme activities related to livestock, highlighting those that are most commonly used and those with as yet untapped potential, especially those outside of the LEGS framework, are then analyzed. Levels of funding targeting the non-food aid Food Security and Livelihoods (FSL) sector are compared to other sectors. Looking into more detail, funding for livestock-related activities is compared to other FSL activities. Trends in proportions of the type and amount funding requested versus actually provided revealed especially interesting results. The institutional response framework is examined as well as trends in the types of agencies engaged and funded.

A final discussion includes the application of LEGS in recent programming, potential avenues to promote better impact in livestock programming, areas in programming that may warrant more consideration, and opportunities for the humanitarian community to further advance livestock emergency responses and their impact on livelihoods.

Impact of Emergencies on Livestock-Based Livelihoods

While this study focuses on livestock emergencies, it is important to recognize that cultivation and livestock raising are often complementary activities, even if they seem to compete for the same resources. Full food security for both small-holding cultivators and pastoralists requires both systems to be functioning properly. In non-crisis times, a high proportion of pastoralists grow at least a portion of their grain needs and purchase the rest of their grain, most often grown locally by farmers. Nearly all farmers depend to a

¹ Raising awareness among NGOs, donors, and government at specific meetings, in June 2010, and also in Wad Medani in August 2010 (NGOs and partners) and Nyala (target group was 22 veterinarians). LEGS training workshops: six training workshops on LEGS were conducted by FAO (two in collaboration with World Vision International (Blue Nile and South Darfur)).

certain degree on livestock to supplement income, provide additional nutrients through milk and dairy products, and to cushion the impact of poor harvests.² In nearly every disaster that affects livestock, except perhaps livestock trade bans, cultivators are often equally or even more affected, though affected differently. Livestock are often moved considerable distances from arid areas to areas where rain has fallen. For example, the Bedeyat Zaghawa of eastern Chad (adjacent to Darfur) moved their livestock several hundred kilometers during the protracted drought and famines of the early seventies and mid-eighties, which enabled them to fully recover by the early 90s (Harir, 1996). When a pastoralist loses his livestock, he loses his asset base—which is similar to a farmer losing the land he cultivates. The process of recovery, though, is quite different. A cultivator can become nearly food

secure after a single good harvest (as long as he is able to continue to cultivate) while a disaster that reduces the size of a herd can take many seasons to recover. If the herd is reduced beyond a critical size, it cannot simultaneously support the herder and recover, and the pastoralist loses his livelihood entirely without outside assistance. So although both livestock and cultivation are important, this particular review focuses primarily on livestock emergencies, with the understanding that livestock-based livelihoods are inherently integrated with other livelihood strategies.

Examples from Sudan of the impact of emergencies on livestock and livestock-based livelihoods are shown in Box 1. These examples illustrate how different types of emergencies have seriously impacted both the local economy and also the livelihoods of specific livelihood groups and local communities.

Box 1.

Examples of recent emergencies and their impact on livestock

1. Drought, South Darfur, 1973 (Wilson & Clarke, 1976). As a result of major drought in 1973, the cattle population of the area studied by Wilson and Clark (1976) is estimated to have declined by 7%. These authors compared livestock raised in the migratory sector with the sedentary sector and found that deaths in the former sector were only 15% compared with 35% losses among the sedentary herds. This points to the drought-adaptive capacity of mobile pastoralist herds.

2. Drought and famine, North Darfur, 1983–1984 (de Waal, 1989). North Darfur was severely affected by drought and famine in the early eighties: “the migratory herds of Furawiya were depleted by 39%, whereas the sedentary herds of Siayah and Jebel Si were depleted by 74% and 75% respectively” (de Waal, 1989, p. 153).

3. Forced migration of pastoralists, Northern State, Sudan (Haug, 2002). In the mid-eighties, the Hawaweer, a nomadic pastoralist group inhabiting the northern part of Sudan, were forced to migrate because of drought and hunger, and at a later stage many were encouraged to return and re-establish their livelihoods based on old traditions.

4. Militia raiding of livestock, Bahr el Ghazal, South Sudan, late eighties (Keen, 1991). In the late eighties, well-off Dinka pastoralists in the south lost their cattle in raids by militia and neighboring groups, resulting in famine and displacement. The famine developed principally as a result of raiding in combination with scorched earth army tactics, creating large-scale disruption in economic life, and was exacerbated by delays in relief distribution, which did not start until 1989.

5. The Darfur Region, 2003–2004 (Young et al., 2005). Although precise estimates are not available, some sources suggested that the displaced population lost between 50% and 90% of their livestock

continued on next page

² According to the 2008 census of Sudan and South Sudan combined, 52.8% of all households are engaged in cultivation, while 59.2% are engaged in animal husbandry. N. M. Elamin Ahmed, 2008, “Households Depending on Agriculture (Cultivation & Animal Husbandry) as a Main Source of Livelihood. Using 2008 Population Census Data,” Data Dissemination Conference 5th Population Census, Ministry of the Cabinet, Central Bureau of Statistics.

holdings as a result of the forced displacement and looting. Other impacts of the conflict included the collapse in the livestock trade and associated jobs, restrictions on livestock migration and access to seasonal pastures, and the theft of entire camel caravans, including upwards of 3,000 camels per caravan.

6. Restricted Cross-Border Livestock Mobility 2012–to date (FEWS NET, 2012). The new international border between Sudan and South Sudan was closed in 2011 with increased tensions in the border regions, particularly in Blue Nile, Abyei, and South Kordofan as well as Sinar. Although agreements to secure and open the border to trade and migration were signed in September 2012, problems continued to be reported. In February 2013, FEWS NET reported that in South Darfur, about 37,500 Umbararo Falata cattle herders were forced to settle in Tulus and Dimso after they were expelled from South Sudan. Animals are now concentrated in areas with limited pasture and water, and competition for these resources is likely to increase. Large numbers of cattle that normally graze in South Sudan during the hot dry season were reportedly confined just north of the border. A number of tribal conferences have been held, and in some regions the situation has improved. Unofficial reports in South Darfur and Western Bahr el Ghazal tell of local negotiations that have allowed some herds to pass, possibly lessening the impact.

The Livestock Emergency Guidelines and Standards (LEGS) handbook categorizes emergencies into three types. The most common type of livestock emergency is slow-onset emergencies, where “livestock initially deteriorate in condition and later die” (LEGS Project, 2009). Rapid-onset emergencies, as the name implies, happen quickly, most often from a natural event, like a cyclone or earthquake. Finally, complex and chronic emergencies are those that happen within a context of a collapse of government authority and service; there is often large-scale violence and displacement, and the scale of the emergency requires multiple international agencies to respond (OCHA, 1999). Very often, the situation is protracted and complicated by chronic natural disasters (LEGS Project, 2009). Using these categories, we review those which apply to livestock emergencies in Sudan.

Slow-Onset Emergencies

Drought, of course, is the primary slow-onset emergency that affects livestock in Sudan. As Sudan straddles the Sahel region, the southern border of the Sahara desert, it is composed primarily of semi-arid terrain prone to major fluctuations in rainfall. Because pastoralism is well adapted to climate variability, an analysis of the real impact of drought on pastoralist livelihoods may require a long-term perspective and may need to consider the wider impacts on pastoralist groups. The graph below in Figure 1 has taken an average of annual rainfall in the Sahelian Zone for the century 1901 to 2000, then took the standard deviations of rainfall in each year (Brooks, 2004). The graph demonstrates that multi-year dry and wet spells are somewhat normal in the region. At the same time, many recent years in succession have been dry, eroding coping strategies and increasing the vulnerabilities of pastoralists.

Figure 1. Rainfall above and below the 100-year average (in standard deviations) (Brooks, 2004)

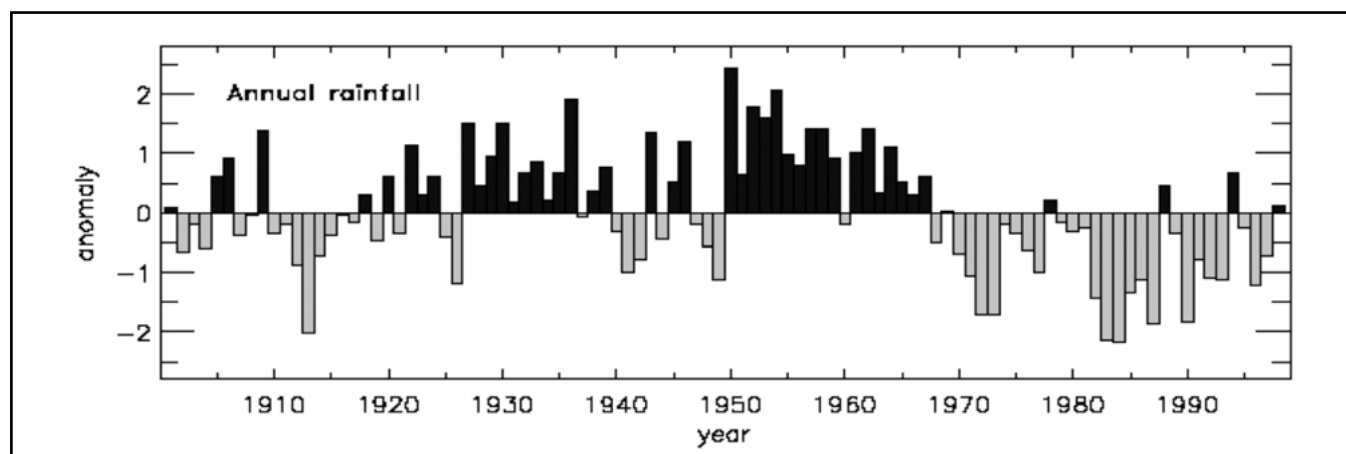
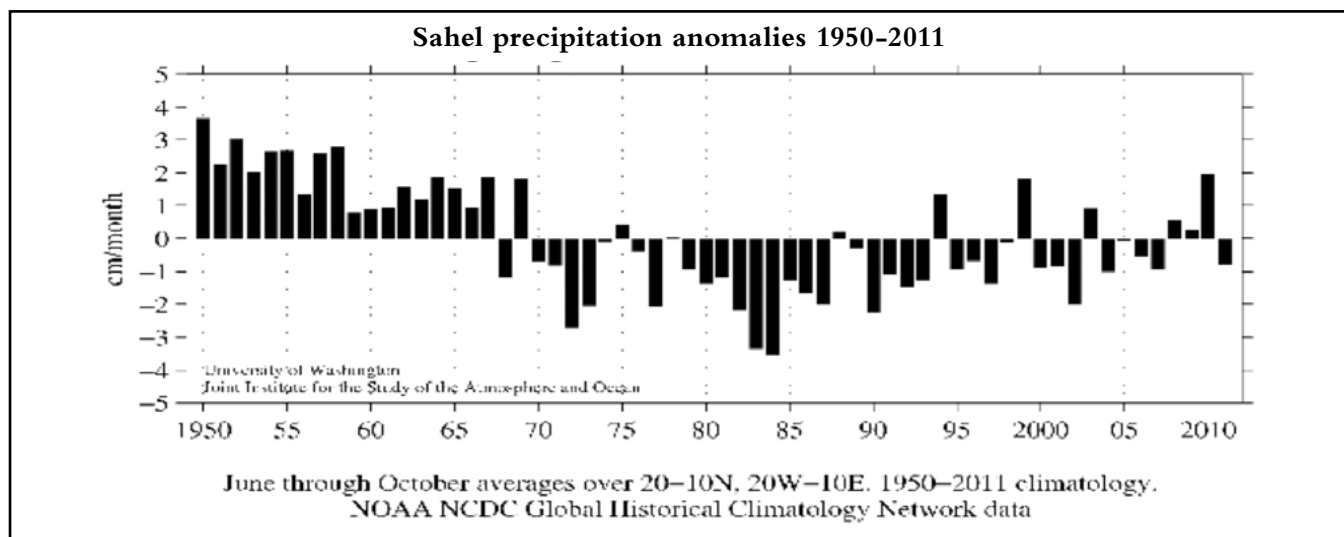


Figure 2: Rainfall above and below the 60-year average (in standard deviations)



(Source: the Joint Institute for the Study of the Atmosphere and Ocean, University of Washington)

Sudan experienced major, multi-year droughts in 1970-73, 1984-5, 1990-1, and 1998-9 (Leroy, 2009; Mattsson & Rapp, 1991; Zakieldeen, 2009). Single-year droughts in the past decade were recorded in 2003, 2006, 2009, and 2011 (FEWS NET, 2013; Leroy, 2009). Figure 2 above looks primarily at the normal Sahel rainy season during the past 60 years and shows that the severity of the dryness during this season is diminishing and now lingers around the average. A difference on previous periods is the fact that dry years are now alternating with good years. For example, 2009 and 2011 were fairly dry while 2010 and 2012 have been favorable (FEWS NET, 2013).

While accurate figures on livestock losses are not available, export figures reflect that with every successive drought, the impact on exports of livestock has increased (FAO, 2013). While pastoralism is obviously well adapted to high rainfall variability, the cumulative effects of successive poor rains are likely to erode this inherent coping capacity.

Rapid-Onset Emergencies

Rapid-onset emergencies occur with little or no warning, and most subsequent interventions are aimed at recovery. These are generally associated with natural disasters of which only floods would apply to Sudan. Flooding can disrupt livestock strategies in multiple ways other than drowning the animals. Water can make rangeland inaccessible, block migration routes, cover rangeland with silt, and kill vegetation. If drainage is slow, it can breed large numbers of vectors that endanger both people and animals. As land is degraded in some areas, less water will absorb and

result in rapid surface run-off and flash floods. The resulting erosion further reduces the productivity of the soil and the ability of the rangeland to support livestock. A few of the programmes reviewed were attempting to address these issues through seeding pasture to increase ground-cover and to place barriers in gullies formed by rapid run-off. This is a potentially low-cost, high-impact, highly labor-intensive activity that is often very suitable for food-for-work or cash-for-work activities³ to provide short-term employment where in-kind food or wages may be available, but little funding for more ambitious livelihoods programming exists.

Looking through the emergency situation reports on the UN Reliefweb website, we can see that parts of Sudan experienced flooding for 16 out of the past 20 years. Most flooding in Sudan is adjacent to one of the major rivers. The most recent major floods were in 2007 and were reported to have killed about 12,000 livestock (OCHA, 2007). OCHA requested emergency funding for supplementary animal feed and a surge in veterinary services. FEWS NET reported above-average rains in 2012, which triggered localized flash floods in many parts of Sudan, leading to many casualties, livestock deaths, and destruction of property and agricultural crops (FEWS NET, 2012).

Other rapid-onset emergencies that do not appear to be covered by LEGS, but which often affect livestock in Sudan, would be epidemics, locusts, and trade bans. Every year, locusts affect some localized part of northern Sudan, normally along the Red Sea coast, but it is not uncommon for them to affect other areas in a band across the middle of the country (FAO,

³ For examples of food-for-work being used to clear pastures of inedible weeds, see: <http://www.care-international.org/Featured-Articles/our-stocks-are-gone.html>.

2009). Locust numbers generally increase after particularly wet years when more vegetation is present. The primary concern with locusts is their consumption of vegetation, though possibly affecting only those animals that browse on bushes (camels and goats) where grass is already scarce (Sánchez-Zapata et al., 2007). The last locust plague covering large areas of the Sahel and extending even to Asia spanned 1987 to 1989. Smaller, but still widespread upsurges in Sudan have occurred every four to seven years since then. FAO now conducts surveillance of the development of locust swarms, aggressively attempting to stall their development through various pest-control measures (FAO, 2009). Humanitarian responses to localized locust upsurges are coordinated by FAO and generally target the locusts themselves and not their impact on local livelihoods.

Though now eradicated, Rinderpest outbreaks once posed a serious threat to herds of cattle. Now, with increased economic dependence on exports, livestock trade bans pose an increasing threat. A livestock trade ban was imposed in 2000 by livestock-importing countries in response to an outbreak of Rift Valley Fever in exporting countries.⁴ Although the LEGS handbook refers the practitioner to the FAO Emergency Prevention System guidelines for livestock disease epidemics, the effects of these bans extends far beyond the effect of the disease on livestock. They can be sudden and devastating to the livestock value chain, livestock-based livelihoods, and the economy in general. The impact of recent bans is covered in detail in the section on Livestock Emergencies and the Economy.

Complex and Chronic Emergencies

Complex emergencies generally involve some form of civil or transnational conflict, involving multiple groups over a large region, sometimes combining disparate local groups with shared grievances, and often overlaid by poor governance and longstanding vulnerabilities. Very often, natural disasters, as discussed above, further exacerbate and complicate the situation. These complex emergencies affect directly and indirectly every aspect of life and livelihoods for large numbers of people. Their protracted nature, sometimes lasting decades, has particular consequences in designing appropriate humanitarian responses.

The largest and most longstanding complex emergency in Sudan was the second civil war between

northern and southern Sudan, arising in 1983 and culminating in the 2005 Comprehensive Peace Agreement (CPA). A major impact on livestock during the war occurred in the southern states where populations lost all access to government veterinary services, which were restricted to government-controlled areas—the garrison towns. In the disputed border areas of Abyei, originally occupied by both the southern, primarily sedentary, Ngok Dinka and the northern transhumant Humr Misseriya, intense fighting as a result of the war displaced most Ngok Dinka out of Abyei. A history of marginalization, raids, counter-raids, and arming the Misseriya as part of the Sudan's counter-insurgency strategies has shaped relations between these groups. For many years the area was depopulated of Dinka, and traditional conflict mediation systems were dismantled. With the return of the Dinka since the signing of the CPA, new systems for defusing conflict between individual Dinka agro-pastoralists and Misseriya herders are necessary to allow their livelihood systems to coexist peacefully.

While the CPA and the eventual independence of the South allowed many families to return to their villages of origin and restart their herds and farms, hostilities and tensions remain along the new international border. Herds from both the north and the south are accustomed to crossing the border seasonally. Interruptions to movements have been observed in Blue Nile State and Southern Kordofan (FEWS NET, 2012).

The Darfur rebel insurgency and government counter-offensive is now ten years old, involving conflict at every level, from local tribal disputes to higher-level civil and transnational conflict that rely on local militias. In the initial displacements, attacking groups extensively looted livestock, selling some and adding others to their own herds (UNEP, 2012). Only in the past year have there been significant numbers of displaced families returning to their villages of origin, with an estimated 137,000 returnees in 2012, though 1.4 million remain displaced (OCHA, 2012). With their return, they will begin to compete and potentially clash with more traditionally mobile pastoralists, some of whom have settled in areas previously farmed by the returnees. Both groups will depend heavily on livestock for their livelihoods, and different degrees of livestock mobility for securing access to sufficient pastures, fodder, and water. Humanitarian programming for returnees needs to

⁴ In 1998, Saudi Arabia imposed a trade ban on all live animals exported from the greater Horn of Africa. In 2000, Saudi Arabia, along with Bahrain, UAE, Yemen, and Oman imposed a longer-term ban (Y. Aklilu & Catley, 2010). These countries, especially Saudi Arabia, were Sudan's largest export markets. The trade ban effectively stopped all exports, and as oil production was not yet significant, it severely affected Sudan's access to foreign exchange. Through strong government action to improve the export quarantine system as well as direct lobbying, Sudan was the first affected country to have the ban lifted by most Middle Eastern countries in 2001, but Saudi Arabia did not lift the ban until 2009 (Y. Aklilu & Catley, 2010).

take into consideration the needs of both groups, though it appears that the returnees have so far been treated somewhat preferentially.

The protracted nature of the humanitarian crisis in parts of Sudan has often been associated with episodes of acute humanitarian needs, associated with protracted and often shifting conflict dynamics, sometimes between former allied groups, that changes the power relations in the region: for example, in 2013 in North Darfur between the Beni Hussein and Northern Rizeigat, and in South Kordofan between sub-clans of the Misseriya tribe. In both situations, this has led to forced displacement and difficulties accessing the affected population, although the situation has improved following reconciliation meetings and agreements between these groups.

Livestock Emergencies and the Economy

The economy of Sudan and the role of livestock have undergone enormous changes over the past 50 years. According to the Sudan Central Bureau of Statistics, between 2000 and 2009, the percentage of

GDP attributed to oil rose from 74.6% to 91.2%, while livestock dropped from 4.2% to around 3.4% (Sudan CBS, 2010).

With the loss of the southern oil fields in 2011, the IMF changed Sudan's categorization from an "Oil Exporter" to an "Oil Importer" (IMF, 2012b, p. 82), that is, "a country with nonfuel primary products as the main source of export earnings." In 2012, the IMF estimates the contribution of oil to Sudan's GDP to have plummeted to around 15%, while total agriculture's contribution was estimated to be around 39.4% (IMF, 2012a). This now leaves agriculture, of which livestock forms the largest part, the sector with the largest contribution to GDP, but one that is also very vulnerable to crises.

The graphs in Figures 3 and 4 left show the changes in both the sheer number and value of livestock exported from the country and do not even account for wealth generated and remaining within the country through domestic sales for consumption or livestock informally traded across borders. Between 1961 and 1977, the total value of livestock exported

never exceeded 17 million USD per year. By 2009, just over 30 years later, this value had reached 240 million USD (FAO, 2013).

Reliable estimates of the proportion of livestock produced under different livestock production systems are not generally available in Sudan. An often-quoted figure is that "up to 90% of livestock in Sudan is raised by pastoralists, but there is little empirical data to substantiate this assertion" (Behnke, 2012, p. 3). Oil revenues were used for many purposes, only some of which, like transportation infrastructure, affected poverty directly while profits from the sales of animals contributed directly to the income of pastoralists.

According to the 2012 Africa Economic Outlook Report for Sudan (p. 6), "The second Five-Year Strategic Plan (2012–17) ... aims to diversify the economy away from oil to agriculture and other sectors." (Livestock is included under the agriculture sector.) Figure 3 shows how the total number of animals exported fell sharply at four different times. Three of these falls in exports correspond to drought periods (early mid-seventies, mid-eighties, and from 2007 to 2008). The most drastic drop was in 2001 to 2002 and can be attributed to the Middle East ban on live animal imports as a result of Rift Valley Fever. The protection of livestock to

Figure 3

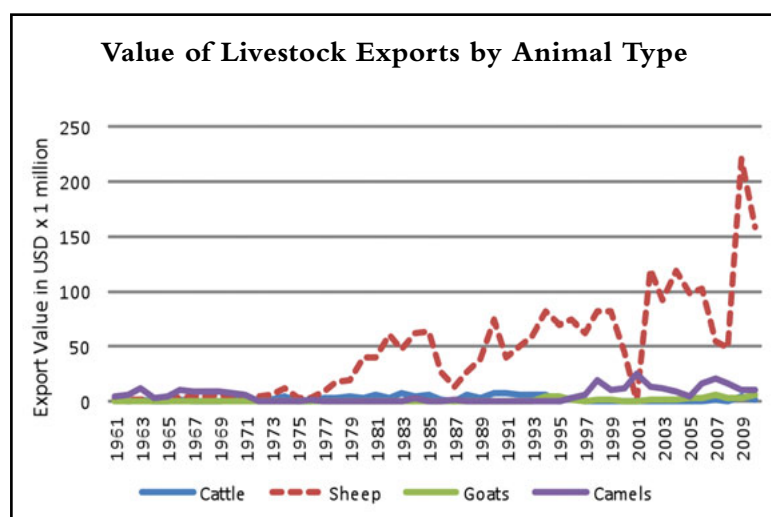
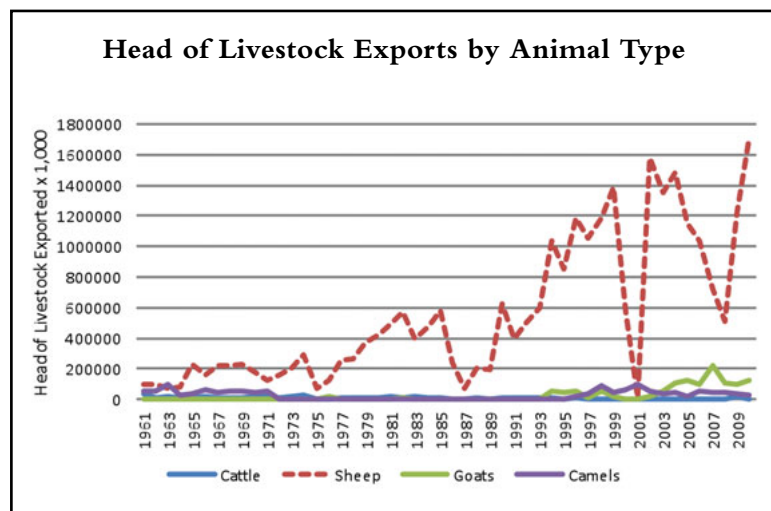


Figure 4



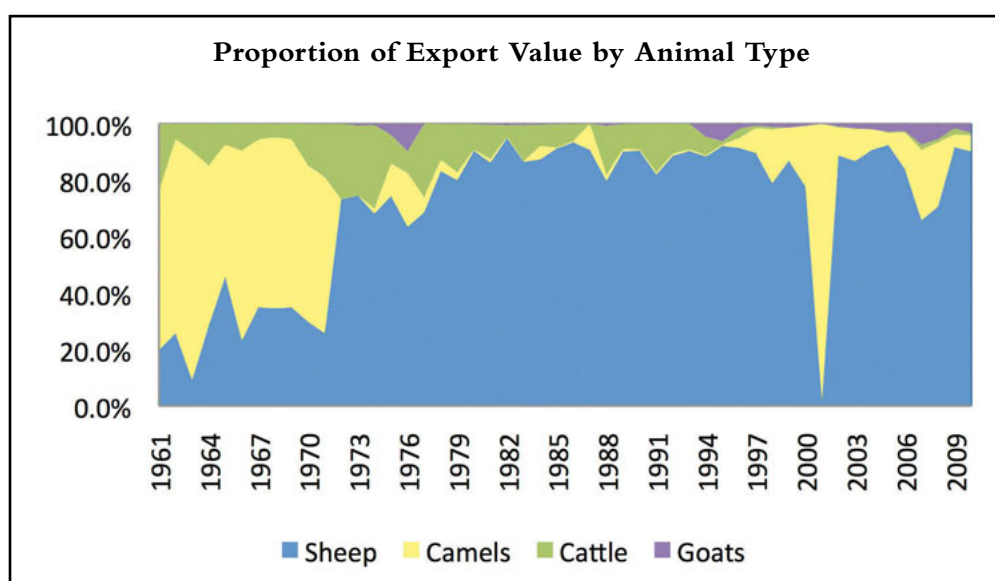
mitigate the impact from crises such as drought, disease, and market fluctuations will be key to Sudan's strategy for growth.

The FAO data in Figures 3 and 4 also show the tremendous impact emergencies have had on livestock and livestock owners. With improved market connections and veterinary care, exports of livestock show a continued upward trend with the exception of severe drops in the early-seventies and 1983/84, due primarily to drought, and the Rift Valley Fever outbreak in 2000, which led to a two-year ban on exports to the Middle East, devastating all exports except camels (El Dirani, Jabbar & Babiker, 2009). According to ILRI, during the ban, Saudi Arabia (Sudan's largest livestock export market) increased purchases of mutton from Australia and New Zealand, permanently reducing Sudan's share of the Saudi livestock market (El Dirani et al., 2009).

When the FAO data is reorganized to show the relative importance of animal types, some interesting trends appear. Figure 5 shows the percent of total annual export value contributed by different livestock. In the early 1970s, the proportion of export value attributable to camels plummeted while that of sheep soared. By the mid-1990s, with an outbreak of Rift Valley Fever and the first Middle East ban on Sudanese livestock imports, exports of cattle all but disappeared. There is an interesting shift in the importance of camels and sheep during each crisis except the mid-80s, demonstrating the different vulnerabilities depending on the mix of animals within a herd. The most profound crisis appears to be the livestock ban in 2000, though this is viewing it through export data and the impact would be attenuated by domestic and unofficial cross-border trade (Aklilu & Catley, 2010).

Access to most basic services such as health care, education, and especially veterinary care generally require a payment in cash in a single lump sum, most often necessitating the sale of livestock. As the need to exchange animals for cash increases, dynamics such as trade prices and export bans will have a much greater impact. Both the losses to the disease itself, as well as the loss in market share and price caused by the resulting export ban, need to be taken into account.

Figure 5



2. The Development of the Livestock Emergency Guidelines and Standards (LEGS)

In the 1990s, humanitarian practitioners became frustrated at the lack of attention to livestock support and the poor programming when it did receive attention (Watson & Catley, 2008). The development of the LEGS approach and handbook was an attempt to rectify the situation and improve the livestock-based responses. The Livestock Emergency Guidelines and Standards support the “design, implementation, and assessment of livestock interventions to assist people affected by humanitarian crises” (LEGS Project, 2009). The handbook is not a detailed “how to” or practical guideline on supporting livestock in emergencies; rather it is meant to be a tool to guide practitioners through a decision-making process to design and implement better programmes.

The process of developing a set of guidelines to support livestock-based livelihood strategies in emergencies was initiated by the Feinstein International Center at Tufts University in 2006 (Catley, 2012; Watson & Catley, 2008). This effort was quickly joined by Vétérinaires Sans Frontières (VSF) Belgium, the African Union Department for Rural Economy and Agriculture, the FAO, and the International Committee of the Red Cross. Together they formed a Steering Group to produce the LEGS manual (Catley, 2012). The actual development process included a large number of stakeholders in addition to those above, including, among others, Oxfam GB and OFDA/USAID (Watson & Catley, 2008). Building on the experience of the Sphere Project, the Steering Group built an email network of about 1,700 organizations and people (Abebe, 2012). Through this network, the first draft was disseminated to get initial feedback. The second draft was then reviewed closely by practitioners and simulated in workshops.

In 2009, the final product was then published as a book, a CD-ROM, and as a free downloadable file in order to reach the widest audience (LEGS Project, 2009). Though originally published in English, both hard copies and downloadable files are now available in French and Spanish, and downloadable files are available in Arabic (LEGS Project, 2012). Having been designed to complement the Sphere handbook, following a similar approach and design, it is now recognized by the Sphere Project Board as a Sphere Companion (Sphere Project, 2012), gaining both credibility and another avenue for dissemination and

recognition. There is still some way to go, though. Although major donors like OFDA/USAID require that Sphere Standards “be applied to all proposed activities for which there are Sphere standards whenever possible and appropriate,” there is no similar requirement for LEGS to be used (OFDA, 2012).

Once the first edition of the LEGS manual was published, training and TOT materials were developed. A series of awareness and training events were also held in multiple countries in Asia and Africa (Abebe, 2012). To date, 13 trainings of trainers (TOTs) have been organized by the LEGS Project, rippling out to 117 LEGS trainings organized by LEGS Trainers (TOT graduates) independent of the LEGS Project.⁵ A second edition is now in process, with inputs currently being solicited on the first edition from users towards a publication date in 2014 (LEGS Project, 2012).

The LEGS Approach

The LEGS approach and handbook are laid out similarly to the Sphere Handbook. Instead of being organized by humanitarian sectors, the approach is based on six “technical options:” Destocking, Veterinary Services, Provision of Feed, Provision of Water, Livestock Shelter and Settlement, and Provision of Livestock (or Restocking) (LEGS Project, 2009). The first chapter addresses the general basis for the approach, followed by chapters on assessment, standards common to all six technical options, and Technical Standards for each of the six technical options. Within each of the Technical Standards, there are Minimum Standards, Key Indicators, and Guidance Notes, all in the same format as the Sphere Handbook. The intention is to help practitioners think through their programme design from the assessment stage through to evaluation, to provide responses that are both appropriate to the context and timely to the stage of the emergency.

The LEGS approach is intended to be a “rights-based” approach in that it claims its legitimacy in “the right to food” and “the right to a standard of living”⁶ (LEGS Project, 2009; Watson & Catley, 2008). The manual states that LEGS also aims to take a livelihoods approach to highlight “the need to develop closer linkages between relief and development” as the livelihoods approach takes a more holistic approach to

⁵ Personal communication with Cathy Watson, 2013.

⁶ Both the Sphere Standards and LEGS are based on rights-based approaches with their roots in international humanitarian law and the international refugee convention. Such a rights-based approach is sometimes confused by national actors with the specific human rights work that addresses gross human rights violations through human rights reporting and advocacy. The distinction between rights-based humanitarian action and human rights work perhaps needs to be better understood.

programming (p. 3). It must be noted though that the manual is focused on particular types of livestock-related disasters, excluding animal epidemics and disasters in high-income countries. Though not mentioned in the manual, it also does not include market or trade-related disasters.

Livestock Emergency Responses: A Historical Perspective

Although a series of poorly designed and implemented responses generated the impetus to develop LEGS, there have been good examples of programming that preceded LEGS and influenced its formal development. One such example is the eradication of Rinderpest, which came about as a result of a combination of factors, including technological advances in the development of the vaccine, and community-based approaches using Community Animal Health Workers (CAHWs) in Sudan (Mariner, Roeder & Admassu, 2002).

Rinderpest, as noted above, was a major threat to livestock (Leyland, 1996). The disease reportedly came to the African continent with Asian cattle in the 19th century and rapidly spread throughout the continent, killing up to 90% of the cattle as well as certain types of wildlife that are also susceptible (AU-IBAR, 2011a; Mariner et al., 2002). An effective vaccine for Rinderpest was developed in the 1960s and drastically reduced outbreaks and mortality (Mariner et al., 2002). Early efforts at eradication were only partially successful, because the vaccine required a strict cold chain, and many of the remaining pockets of the disease were located in remote, undeveloped regions. In 1990, the Tufts University School of Veterinary Medicine developed a vaccine that did not require a cold chain, remaining active for up to 30 days without refrigeration (AU-IBAR, 2011a). Some of the final pockets of Rinderpest were in areas of Sudan where conflict was rife, further limiting access. Government veterinary services were initially weakened during structural adjustment programmes in the 1980s and then all but collapsed during the war, reaching only garrison towns in the south (AU-IBAR, 2011a). While pastoralists recognized the difficulties posed by the conflict and other security issues, they also pointed out that the current veterinary service system was not designed to reach mobile, often remote herds and suggested community members be trained to both vaccinate animals and to provide surveillance for reporting new cases. While the use of CAHWs to treat

animals for simple ailments was not new, the use of CAHWs for something this systematic and technically challenging was new (Leyland, 1996).

Although NGOs and eradication officials were interested specifically in vaccination coverage for Rinderpest, surveys with these communities showed that while they recognized the threat of Rinderpest, there were several other animal health issues that were more common and therefore ranked higher (Mariner et al., 2002). The CAHW training thus included more than vaccination coverage. Trained and certified government veterinarians, threatened by this new concept, were skeptical, but herds that had been vaccinated by CAHWs were tested for the antibodies, with even higher rates of success than conventional vaccination campaigns. Only through the use of CAHWs and a new heat-stable vaccine were the final pockets of Rinderpest eliminated.

Rinderpest is only the second disease to ever be completely eradicated.⁷ Sudan was declared free of Rinderpest in May of 2008 (AU-IBAR, 2011b), and global eradication of the disease was declared in June 2011 (Tufts Now, 2011). Without the use of CAHWs, maximizing the strengths and ingenuity of affected communities, this would never have been possible.

Leyland (1996) notes that the underlying argument behind the provision of community-based animal health services is that improvement in animal health will lead to improvements in human health and household food security through support of the pastoralist livelihood. While the empirical evidence making this link between animal health and household food security is limited, the literature does support the improvement in animal mortality and morbidity as a result of community-based animal health programmes. By supporting herd health and number, pastoralists have more assets at their disposal as well as options with which to pursue their livelihood to meet their livelihood goals (Leyland, 1996). During disasters, the links between improvements in animal health and links to human health and nutrition have been increasingly recognized, and reviews have focused on the role of milk and milk products in the diet, particularly in improving the dietary quality for women and young children. This raises important questions about which interventions in the medium to long term should be prioritized to improve access to both human and animal milk and their impact on the health and nutritional status of children (Sadler, Kerven, Muriel Calo, Manske & Catley, 2009).

⁷ The only other disease to be completely eradicated, human or animal, is smallpox.

LEGS in Sudan

The UN Cluster System is used for programme coordination in Sudan. FAO, together with WFP, co-chair the FSL Cluster in Sudan, bringing together all stakeholders in a coordination forum that meets fortnightly at the state level and monthly at the national level in Khartoum. Each cluster sets sector priorities and best practices as well as coordinating activities among actors involved in each sector. Funding from institutional donors is increasingly funneled through the cluster system. A given portion is allocated to the FSL cluster, and the UN leads then decide how to divide this allocation among the partners, based on the annual FSL Cluster Priorities and the “IPC” Levels⁸ for various areas. In addition to these formal activities, training is also often arranged through the clusters to maximize the benefit to partners or to promote certain priorities of the lead agencies.

In addition to agriculture, FAO supports livestock programming, providing technical expertise, funding, and centrally procured materials to implementing partners. For example, livestock vaccines are procured by FAO and provided to partners and government institutions conducting livestock vaccination activities. In 2010, working through the FSL cluster, FAO began an effort to improve the quality of livestock programming in Sudan through the promotion of LEGS (Ibrahim, 2012). The intention is to align the multiple programming activities and approaches to the LEGS framework and from that ensure best practices are followed.

Working alongside FAO and supported by the Ministry of Animal Resources, several international agencies have made a concerted effort to promote LEGS within Sudan, including World Vision International, International Committee of the Red Cross, and others. They began with awareness raising in 2010 through meetings with many of the implementing agencies, including NGOs, donors, and government officials. Over the following two years, FAO conducted workshops to train key staff in LEGS, with World Vision collaborating on two of these workshops. A major emphasis in these trainings was to take a more proactive stance on livestock-related disasters, incorporating prevention, mitigation, and preparedness into programming.

ICRC also has a long experience supporting livestock-based livelihoods, and undertook a related review of the livestock sector in Sudan in 2004 (Piers Simpkin, 2004). In 1988, the ICRC were directly involved in the Operation Lifeline Sudan (OLS)

livestock programme with vaccination campaigns to control Rinderpest. The programme ended in 1991 with up to 2.2 million vaccinations completed and was handed over to UNICEF (ibid).

Since that time ICRC has supported emergency livestock programmes in a number of areas, including mainly Darfur, Kassala, and the Bentiu region. Other recognized flashpoints (related to ongoing civil war) noted by Simpkin in 2004 included Terekeka, Nuba Mountains, Abyei, and West Kordofan, particularly Bentiu and Rubkona. It was recognized that these areas were particularly of concern given the high degree of livestock movements and restricted access and mobility brought about as a result of conflict and insecurity.

Vétérinaires sans Frontières (VSF) is perhaps the only agency in Sudan that specializes in livestock support, with veterinarians permanently on staff. Most agencies supporting livestock are either general food security or multi-sectoral agencies. World Vision International, Catholic Relief Services, VSF, Oxfam, COOPI, AHA, Concern, Mubadiroon, Practical Action, SOS Sahel, Islamic Relief Worldwide, Islamic Relief Agency, German Agro Action, and World Relief are among many national and international NGOs engaged in livestock programmes. These are exactly the types of agencies LEGS was designed to assist. Part Two of this review presents case studies that include World Vision International, Mubadiroon, and Practical Action, three non-specialist agencies that are implementing livestock-support activities using LEGS in an attempt to help them improve their programming.

⁸ The Integrated Food Security Phase Classification System (IPC) describes the five main phases of food security, from Phase 1 (Generally Food Secure) to Phase 5 (Famine/ Humanitarian Catastrophe).

3. Character and Trends in Recent Emergency Livestock Programming in Sudan

Sudan has been in a near-constant state of humanitarian crisis since the mid-1980s, with a continuing humanitarian presence in parts of the country such as the Darfur region. In addition to the area that is now South Sudan, Darfur has been in and out of crisis, originally from drought, but, for the past ten years, as a result of protracted conflict. The protracted humanitarian response in the Darfur region, combined with the humanitarian emergencies in other parts of the country (Blue Nile, Kassala, South Kordofan) means that the emergency livestock response sector is highly significant, and long established.

As noted in the methods section, the analysis below was conducted using the FTS database (the most comprehensive source available), a small survey conducted on behalf of the UNCT Steering Group on Pastoralism, and a sample of individual proposals from the CHF. The analysis first reviews the geographic coverage of FSL programs, followed by trends in the types of beneficiaries targeted. The analysis looks into various aspects of the programming, using all available sources of data. Finally, we examine the institutional framework and types of FSL programming activities and present an analysis of expenditures, comparing FSL programming with other sectors, and expenditures on livestock activities compared to other FSL activities.

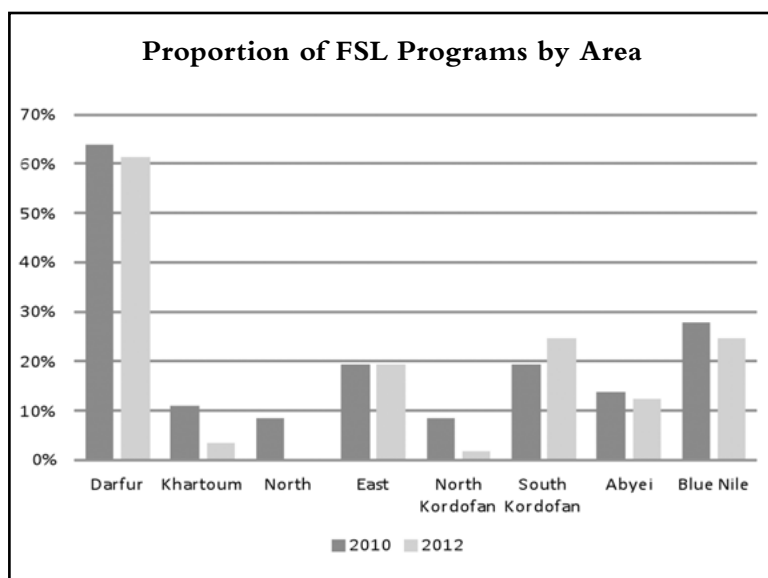
Geographic Coverage

The proposals to the CHF list the states in which they provide services. Most proposals listed only one state, although FAO proposals covered most states in a single proposal. A few NGO proposals covered two states. Although Abyei is now a part of South Kordofan, its status as one of the “Three Disputed Areas”⁹ meant that coverage of Abyei was often listed separately.

As shown in figure 6, there is surprisingly little difference between 2010 and 2012, in the areas with proposed programming. This indicates that emergency-related programming has continued in at least four regions of Sudan for more than three years, which probably reflects the protracted nature of humanitarian crises in Sudan despite the short-term funding cycles of less than one year duration. This raises issues about the continuity and sequencing of programming, and the longer term strategy that should be considered when implementing humanitarian projects. In the recent LEGS workshop report,¹⁰ the participants’ feedback included concerns that the six LEGS Technical Options focused on short-term support and might not fully address needs in the protracted crises so typical of Sudan (Population Census Council, 2009). In addition, it is not possible from Figure 6 to distinguish between the short-term acute humanitarian programmes and the programmes addressing longer-term protracted crises. This is a major shortcoming, and it should be possible to separately analyze these two very different types of programmes.

The most significant change in coverage of humanitarian programmes between 2010 and 2012 was a significant drop in programmes in Khartoum, North Kordofan, and the North. It is surprising to see a slight drop in the Blue Nile State, as needs have increased with blocked migration routes into South Sudan. This may be due in part to travel restrictions placed by the government on international organizations and their personnel, increasing the difficulty of

Figure 6



⁹ These three areas include Abyei, South Kordofan, and Blue Nile, and they are covered by their own protocols for the resolution of conflict, separate from the CPA.

¹⁰ Tufts/FIC, 2012, Report of a one-day national meeting. Introduction to “Livestock Emergency Guidelines and Standards” and “Participatory Impact Assessment,” Shambat, Khartoum North, Khartoum. UNEP, Tufts Feinstein International Center, SOS Sahel, Nomads Development Council.

implementing programmes in this area. The slight increase in programming in South Kordofan is to be expected. The small shifts in programmes may be due partly to the way agencies work. Not all proposed programmes were fully funded, and some were cancelled partway through, so this chart may reflect more the implementing agency priorities rather than donor priorities. In general, an agency will establish themselves in an area or in several areas. As a particular area moves through various stages of crisis or development, an agency will adjust the type of programming rather than the area of coverage. Work conducted by international NGOs must always be conducted at the permission of the government, somewhat restricting the flexibility of agencies to shift geographic areas of focus. In Sudan, it is particularly difficult to get permission from HAC through a change in the Technical agreement.

It is not surprising that Darfur has the highest level of participation by agencies. The affected Darfur region is vast, with a population exceeding 7.5 million according to the 2008 Census (Population Census Council, 2009), of which 1.4 million (19%) were still in IDP camps as of the end of 2012 (OCHA, 2013). Other coverage is as would be expected, except perhaps the decrease in agencies in Blue Nile. Although needs have increased in this region, it may be that insecurity has reduced the number of agencies attempting to work there, but is likely due more to government permission for access.

Beneficiary Targeting Analysis

Beneficiary Groups

There is no standard set of labels or selection criteria for targeted beneficiary groups. They often depend on the sector, objectives of a programme, preferences of a donor, and even the local conventions of implementing agencies in a particular sector. As a desktop review, this brief initial analysis of targeting necessarily used the categories listed in proposals.

There are three types of beneficiary categorizations used by implementing organizations that are often mixed within the same proposal. The first (IDP, Host, Returnee, and Refugee) relates to a person's status in relation to their home of origin. "Host" is used interchangeably with "resident." The second relates to a person's livelihood group, such as pastoralist or farmer, regardless of their status of residence. The term "pastoralist" was often used to imply that their primary income source was animals, but also sometimes implied mobility and could be used interchangeably with "nomad" within the same proposal. Finally, the label "vulnerable" was associated with specific characteristics, such as being older, a youth, a woman, HIV positive, etc. Very often, the criteria of

vulnerability would not be specified. It was common for proposals to use a mix of these categories of beneficiaries. For example, a typical beneficiary description might say they targeted "IDPs, host community, and pastoralists." This usually assumed that pastoralists could be neither IDPs nor host community and that pastoralists qualified for assistance due to their livelihood strategy, while others qualified by their residency status regardless of their livelihood. While substantive guidance is available on how to select beneficiaries within a target group, more detailed decision-making processes or even guidance on which groups to target might support a more logical, standardized system and highlight hidden assumptions about the social structure of the local population.

In general, it was the international agencies that were most apt to use and mingle these distinctions. National agencies were more likely to simply target a community in general, not based on distinctions of livelihoods or whether or not they were in their home of origin. It also seemed less important to these national agencies to label the livelihoods of the groups. This is perhaps indicative of a better recognition that the lines between farmer and agro-pastoralist, or between agro-pastoralist and pastoralist, are fuzzy and somewhat arbitrary at best, or, like the international agencies, it may also stem from unclear targeting strategies.

Targeting Strategies

Respondents in the UNCT survey gave some insights into their targeting strategies, keeping in mind that the survey was about pastoralists as a group rather than livestock per se. When asked how they identified and selected beneficiary groups, a large number emphasized the need to include pastoralists (which supports both humanitarian principles of impartiality and the more developmental principle of promoting equity). While this strongly suggests there is a willingness and interest, at the same time many expressed frustration with the practical challenges posed by the mobility of pastoralists, as well as the limited experience of most agencies in working with these groups. One respondent put it bluntly, "Pastoralists should be settled. It is not easy to deliver services otherwise." Another was more pragmatic, saying, "Always work with both pastoralists and farmers. However the pastoralists are only there for part of the year." It is the mobility of the pastoralists that is seen as the barrier, rather than the tendency of targeting based on a geographic area rather than a set of people, a distinction that is not noticed when the population is sedentary.

There were some differences in opinion among the UNCT survey respondents as to the level of need among pastoralists as compared to farmers. One

respondent stated, “We focus more on farmers because they are more vulnerable. At least pastoralists have animals.” Another framed a counter-argument that sums up many of the difficulties of addressing populations that include multiple livelihood groups. He stated that there are “different perceptions of poverty and vulnerability—so a person with 40 livestock may be as poor as a poor farmer, but would not be perceived as that poor. In terms of beneficiary assessment and selection for vulnerability, you can’t apply the same criteria.” Other agencies simply ignored the different needs between the two different livelihood groups, mistaking differentiating needs with giving preferential treatment. One respondent stated, “Pastoralists are part and parcel of the wider population and not looked at separately.” There were some agencies that did attempt to address these issues directly, organizing beneficiary selection committees with members from pastoralists’ unions, farmers’ unions, and women’s unions.

Trends in Targeting Beneficiary Groups

At first it appears in Figure 7 that farmers are targeted about as often as nomads and even less often than pastoralists. A review of the actual activities within proposals reveals a much higher level of activities with sedentary populations whose primary source of income is cultivation, and not livestock, though this changes slightly between 2010 and 2012. For example, in 2010, 17% of programmes had restocking activities, most of which targeted small groups of “vulnerables” to use animals as an IGA. In 2012, 39% of programmes had a restocking element, about half of which were to restart herds for people who had lost animals due to insecurity. While the data were not in sufficient detail to know if this reflects an actual increase in spending on restocking in particular, this shift in programming activities is potentially significant, reflecting a broader trend towards supporting livestock recovery activities.

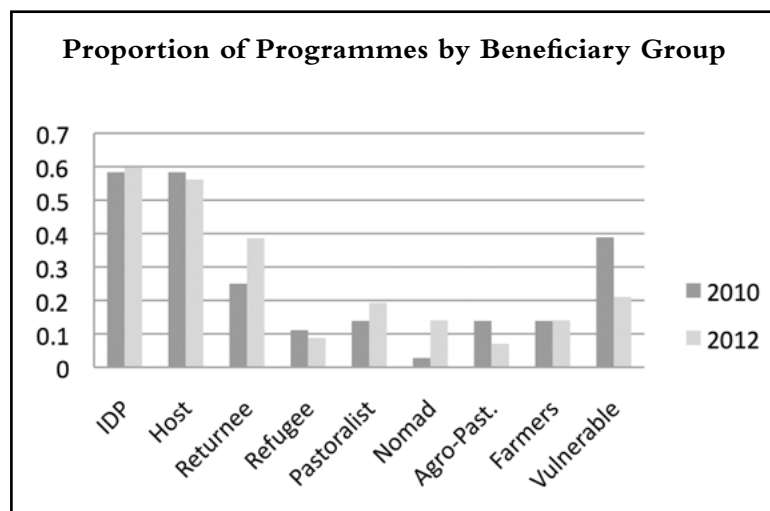
As we see in Figure 7, even with the inexact nature of labeling beneficiaries, changes in beneficiary types named in proposals are reflective of wider trends linked with the evolving crises. The secession of South Sudan created a new international border, cutting multiple pastoralist migratory routes that run from north to south, spanning both Sudan and South Sudan. Outstanding legal and political issues, including border demarcation, have contributed to protracted insecurity and conflict, and an increasing awareness among national and international agencies of the importance of pastoralist mobility and pastoralist needs. The increasing trend of targeting pastoralists and nomads partly reflects this, as well as the series of LEGS trainings.

In many proposals, there appeared to be a blurring of the terms IDP and Returnee. People who had been displaced, but who were returning to their village of origin were sometimes called IDPs and sometimes Returnees. Regardless, there has been a significant increase in emphasis on supporting people returning home, and proposals have adjusted to take this into account. As actual programme evaluations were not available for this review, it is difficult to say whether an increase in intention to engage these groups resulted in actual engagement. While the Darfur region has seen a recent increase in the number of IDPs attempting to return, increased conflict in each of the Three Areas has created new populations of IDPs. The increased targeting of Returnees without a commensurate decrease in support for IDPs may reflect an aggregation of data.

Restocking activities were likely to target IDPs and returnees rather than pastoralists. Often, programmes listing nomads and pastoralists as beneficiaries alongside IDPs and returnees would involve the inclusion of pastoralists in the use of a water source or the demarcation of a migratory route so that programme activities with farmers or agro-pastoralists would not cause conflict, rather than to ensure the rights of pastoralists to move freely.

While targeting strategies and perceptions of need varied, actual numbers of pastoralists and nomads are listed more often in 2012 as targeted populations. On closer inspection, pastoralists and nomads are very often targeted in only one of multiple activities within a programme. Livestock activities are also frequently targeted at non-pastoralists. So although the number of FSL programmes targeting pastoralists and nomads is increasing, as we will see in the expenditure section, this does not necessarily translate into increased overall proportion of funding for livestock-related activities.

Figure 7



Livestock Programming

Looking at livestock activities, independent of the target group, we can see in Figure 8 some changes between 2010 and 2012. In 2010, the proportion of programmes with agricultural activities was about 19 percentage points higher than those with livestock activities. In 2012, the proportion of proposals with agricultural activities remained about the same, while the proportion of programmes with livestock-related activities increased 14 percentage points to almost equal the proportion supporting agriculture. This suggests that the bias toward agricultural activities over livestock activities is diminishing.

Within each proposal covering the livestock sector, the average number of livestock activities did not change, but more proposals included this component in 2012 than in 2010. It is difficult to say whether this is due to an increased awareness of livestock needs, or a real change in the level of livestock needs. Section 4:

Figure 8

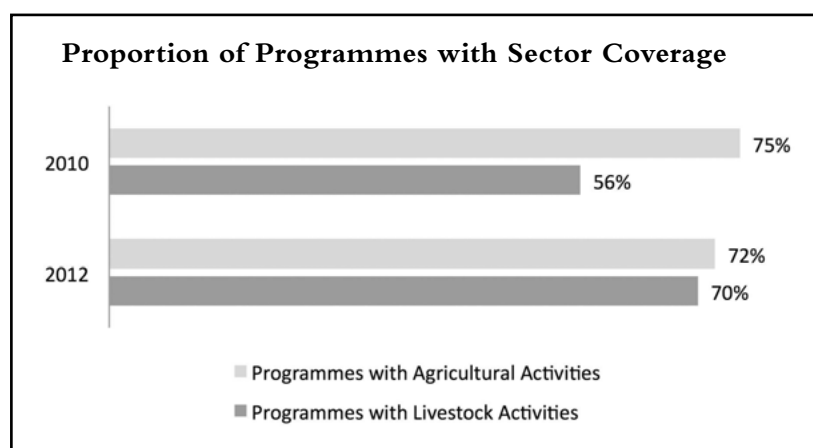
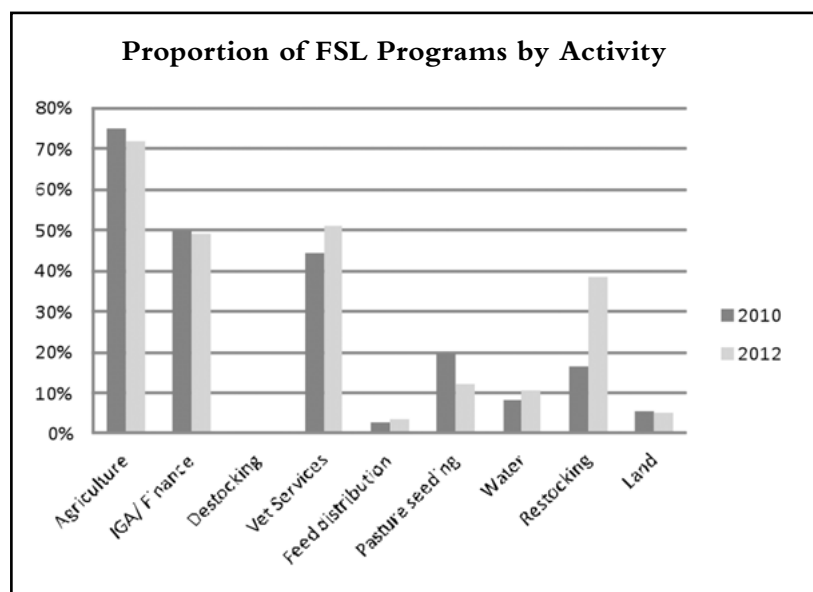


Figure 9



Analysis of Expenditure below extends this comparison to relative expenditures on agriculture and livestock programming.

Figure 9 breaks down the livestock-related activities into specific types of response or activity, based on the LEGS categories. The “feed” category is broken out into distribution of feed or fodder and the production of food, primarily through reseeding pasture. All activities related to agriculture fall under the one category of “Ag” and all activities related to IGAs, microenterprises, savings and loans schemes, and vocational training are included under the heading IGA/Fin. Although “Land” is not one of the LEGS categories of activities, it was included here, meaning primarily activities to provide livestock access to land for many purposes. In all but a few cases, this was done through the negotiation and demarcation of migratory routes.

Funding data in the FTS was not disaggregated by activity, so we are unable to distinguish the proportion of funding within a programme that was dedicated to each activity. In the expenditure analysis presented in detail in section 4 below, an analysis of CHF programmes found that agriculture and IGA activities combined generally garnered about three times the funding of all livestock activities together.

In addition to the activity types listed above, Natural Resource Management (NRM) was also a key category. Nearly 100% of programmes in both years included tree planting and to a slightly lesser degree fuel-efficient stoves. Very few agencies included any other type of NRM except some vague “training” in NRM. Some mentioned that reseeding pasture would provide ground cover and therefore also qualified as NRM. Tree planting is a very low-cost project that can involve many people. While reforestation is a much-needed activity in the region, it is curious that it is so very pervasive, and yet there is no mention of survival rates among saplings or of measured impact. Skeptics might say that tree planting, like vaccination campaigns, is an activity that can increase total beneficiary numbers with little administrative cost. It is also an activity in which agencies often tried to involve nomads and pastoralists with the reasoning that the trees that kept their leaves in the dry season would provide fodder. Such projects would benefit from evaluation.

Veterinary Services—The most common activity in both years was veterinary services. Most activities in this category were vaccination campaigns and training or support to CAHWs. In many cases, the CAHWs were given additional training in vaccinating animals and then used in a campaign. Other activities included support or rehabilitation of local veterinary laboratories or clinics and setting up schemes for the supply of drugs, most often on a cost-recovery basis. CAHWs were also expected to continue their work on a cost-recovery basis as well, though they do not have ready access to vaccines or a cold chain. Drugs for treatment were either the responsibility of MLFR at state level, or through private means, while the provision of vaccines was the responsibility of MLFR at the national level, usually provided in collaboration with FAO. This means that animals served primarily by CAHWs and who had little or no access to clinics had to await campaigns for vaccination rather than getting them through a routine system. With the new “Austerity Cabinet,”¹¹ both of these responsibilities will likely fall under the same ministry, and avenues may open to make vaccinations that do not require a cold chain more widely available to CAHWs.

Destocking and Shelter—Neither destocking nor livestock shelter (not indicated on the graph) had a single activity attributed to them in either year, nor was there any discussion of them in any of the proposals reviewed. If done well, destocking may save many herds as well as potentially prevent long-term damage to the environment. According to an FAO review, destocking may have:

- “a direct but marginal positive environmental impact, as pressure on the range is reduced by (probably only) a small proportion of stock being taken off, and
- an indirect positive environmental impact, in that an integrated policy of assisted destocking and restocking will avoid weakening the traditional pastoral economy relative to absentee herd owners who lack their environmental knowledge and are less subject to traditional resource management systems” (FAO, 1999).

However, there is little hard evidence or even guidance on indicators to monitor environmental impact. Abebe et al. (2008) argue that further research is needed to assess the environmental consequences of commercial destocking.

A technical review of emergency livestock projects in Kenya during the 1999–2001 drought found that

destocking/restocking was the most successful intervention because of the high level of community interest it generated, given that it stimulated markets and provided a ready source of protein (Aklilu & Wekesa, 2002). But destocking is a difficult option, one which requires strong technical knowledge of markets and reliable predictions on future events and price trends (Aklilu & Wekesa, 2002). There are many potential pit-falls, such as delays in funding, that mean animals are unusable for human consumption if the plan is to slaughter and redistribute the meat (Aklilu & Wekesa, 2002). If animals are to be purchased by merchants at subsidized prices, and if the merchants are able to hold onto the animals and resell them back to the original owners later at much higher price, then the owners will feel cheated by the system (Aklilu, 2010). Finally, if restocking activities are not clearly communicated and implemented according to plan, some pastoralists may resort to the traditional restocking strategy of raiding the remaining herds in order to reestablish their own. It is therefore not surprising that this is not a popular option among either the beneficiaries or the implementing agencies.

Shelter for animals is seldom used through most of Sudan other than the shade of trees. But along the new southern border, barns are often used as a method of minimizing exposure to insects during the wetter seasons. These are normally constructed from grass and wooden poles in a similar fashion to houses, but much larger. See photographs in Figure 10. As the high level of participation in veterinary services should indicate a keen interest in animal health, it is interesting that this aspect was never mentioned.

Feed Distribution—Feed distribution is extremely expensive and can therefore only serve a small number of animals. Because feed must usually come from another region, and the livestock are normally located in remote areas with little transportation infrastructure, it is understandable why this activity is not common. This may also be a reflection of the protracted nature of most issues in Sudan, as distribution of feed is appropriate only when it is expected that the lack of feed is short term.

Pasture Seeding—Instead of distributing fodder, many agencies have opted to increase access to food through either the rehabilitation of rangelands or pasture, the promotion of commercial fodder production, and through establishing “fodder banks.” Insufficient grazing in an emergency is generally due to two reasons, lack of ability to move the livestock to normal grazing areas or due to an event like drought or

¹¹ On July 9th, 2012 under austerity measures the government cut five of 31 ministerial posts. ARB, 2012, “Sudan Austerity Cabinet,” *Africa Research Bulletin* 49(7): 19338–19339.



Figure 10: Livestock barns, Warrap State, South Sudan, 2011 (Merry Fitzpatrick). The larger buildings are the barns, the mid-sized buildings are houses, and the small structures on stilts are the storehouses and poultry shelters.

locusts when normal grazing areas are inadequate. In the years analyzed, the former was nearly always the case. Rehabilitation of pasture through seed broadcasting is reportedly common practice in Darfur. It is also used in combination with the opening of the livestock migration routes using road-side broadcasting. However, the success rate of the pasture regeneration is seen to depend on the conflict resolution and management of grazing practices promoted and endorsed by the user communities along the corridor (resident farmers/agro-pastoralists and pastoralist/nomads). This is another area which deserves proper evaluation and impact assessment.

Livestock Water Needs—None of the WASH programmes reviewed in detail specifically targeted livestock. Instead, a very small handful would design aprons to collect run-off in troughs for animals or irrigation of small plots. Invariably, the justification would be to reduce contamination of the well and

maximize utility of the water rather than to meet the needs of animals. Indeed, the amount would generally be only enough to water the donkeys carrying the loads of water and a handful of sheep and goats.

In calculating the capacity of water needs, WASH programmes always used the Sphere Minimum Standard for humans—15 liters per day. The Sphere Guidance Notes for water “Quantity and Quality” note, “Particular attention should be paid to ensuring that the water requirements of livestock and crops are met, especially in drought situations where lives and livelihoods are dependent on these” (Sphere Project, 2004, p. 63). The Sphere handbook even provides daily consumption estimates for large and small animals. Some proposals mentioned in their background or justification sections either the presence of large numbers of animals using a particular water source, or problems caused by animals entering residential or farming areas to access water from the bore holes or water yards. But even these did not take into account

the amount of water that would be consumed by those animals.

Water for animals is found in the FSL programmes. Nearly all referred to rainwater catchment system or *hafirs*, massive open pits that fill with surface run-off during rains. Many FFW programmes with pastoralists targeted the construction or rehabilitation of *hafirs* along migration routes, partly to meet the needs of the herds but also to prevent congestion and conflict at water points that might not be within the designated route or which were designed for human consumption.

Restocking and Provisioning of Livestock—This has apparently become a very popular activity. Most provide a small number of goats to vulnerable individuals or female-headed households, and the indicator is usually related to improved diets or income from goat's milk. More frequently in 2012 than in 2010, the justification was to replace animals that had been lost due to conflict. In only two cases were improved breeds among distributed animals discussed. Although numbers of animals provided were generally small, the cost of this activity often outweighed all other livestock activities in a proposal combined. A large number of proposals included distributions of donkeys, almost exclusively to vulnerable individuals, as these are key assets in managing daily life in rural Sudan, as well as an opportunity to earn income through selling water or firewood, or transporting goods.

Although sheep are much more marketable than goats,¹² it is much more common for agencies to provide goats as IGAs and restocking than sheep. The proposals reviewed did not give reasons for this preference for goats in restocking, though some did mention the production of milk in the IGA programmes (Sudanese do not commonly drink sheep milk but will more readily drink goat milk). While goat milk is not generally offered in the markets, it would supply the family with milk, reducing food expenditures. Sheep on the other hand are most appropriate for restocking herds meant to be the primary livelihood asset. While both provisioning of animals for IGAs as well as restocking herds depleted by looting were present in the later years of the proposals, it was not clear that agencies were making the distinction that two different types of animals may be required and fulfill different purposes. A general recommendation from expert practitioners is that the restocking activity and choice of species should be given to the beneficiaries. However, responding to their preferences may not be feasible. For example, restocking to rebuild pastoralists livelihoods are likely

to be based on camels or cattle, thus requiring a much larger investment of resources and logistics. Hence most organizations focus on small ruminants.

Land—Whereas the Pasture category addressed grazing specifically, the Land category addresses either access to land or migratory routes. Though a very large proportion of the proposals mentioned land as an issue, especially among returnees in Darfur, very few projects proposed negotiating access to land and only a small number proposed to facilitate the demarcation of a migratory route. This may be partly due to the fact that the database of projects reviewed were largely from the CHF for which access to land is not a priority issue, though the Darfur Community Peace and Stability Fund (DCPSF) managed by UNDP does include access to land as a key issue. On the other hand, the Darfur Community Peace and Stability Fund (DCPSF) managed by UNDP supports several programmes addressing sources of conflict and conflict mediation at the local level, to include access to land (Joniaux, 2010), as does UNAMID (PANA, 2012) and the World Bank, although evaluations were not available. As conflict in Darfur often involves issues of access to land, or land use, many of the projects supported by this fund also incorporate elements related to land.

Programming and Conflict—Competition between sedentary farmers and pastoralists over scarce resources is often cited as a contributing factor to conflict in Sudan (PANA, 2012; Fadul, 2004). More often than not, the pastoralists are portrayed as the aggressors. This was reflected in a number of proposals. Respondents in the UNCT survey commonly mentioned a strong perception among pastoralist communities that programming has discriminated against pastoralists. Some of those interviewed were trying to address these differences, whether real or perceived. As stated by one respondent, "Pastoralists are basically Arab communities, who believe that they are neglected and the IDPs are supported. So we try to redress this by seeing if we can do seasonal interventions. But we focus more on farmers because they are more vulnerable."

Programming and Community Participation—The LEGS and Sphere handbooks both stress community participation at all stages of the programme cycle. One UNCT survey question asked about levels of community participation in project implementation. The answers varied, but many of the misconceptions about true community participation that had been

¹² UNEP (2013). "Standing Wealth: Pastoralist Livestock Production and Local Livelihood in Sudan." United Nations Environment Programme, Nairobi and Feinstein International Center, Tufts University, Medford.

applied to farming communities were also applied to pastoral communities. Communities most often “participate” through answering survey questions, or providing “community contribution” in the form of labor or materials. One respondent stated the communities were “not involved in planning, as this comes from the project.” Similarly, another explained, “first we clarify the concept [of the intervention] then we ask them to select through elections for the development committee.” Even the method of selecting the committee is given to the communities. The best example of community participation came from a UNAMID respondent who explained, “They identify the project itself from the outset.” The missing element in most is starting with the needs and solutions as expressed by the communities. Although this may be considered a “development” approach rather than the more typical top-down humanitarian approach, it seems logical that people would know their own needs best, and an agency with broader experience working together with local knowledge can design better programmes. The fact that communities may also actually implement carefully structured humanitarian as well as development programmes is also missing. In implementing new approaches or guidelines like LEGS, it is important to remember that common flaws in older programming can also carry forward.

The Institutional Framework and Engaged Actors

Humanitarian activities for each sector are coordinated as much as possible through their respective UN Clusters. Periodic Food Security and Livelihoods Cluster meetings are held both in Khartoum and at the state level, co-chaired by FAO and WFP. A review of meeting minutes posted on the cluster web page show that the cluster meetings are attended by a good cross-section of both national and international NGOs. Government attendance appears to be limited to representatives from the Food Security Technical Secretariat/MoA who work with FEWS NET, and of course HAC. Discussions are mostly quite general, as often about administrative matters surrounding reporting and funding as about matters specifically pertaining to food security. Both agriculture and livestock are included. There are apparently separate Agriculture and Livestock Working Groups at state level, with the MoA chairing the former and the MoAR the latter, though no documentation from these groups could be located. In this hands-on policy environment, wider government participation, perhaps to include MLFR focal points and other lower-level managers interacting with agencies actually implementing policy through their programmes, could help to inform and strengthen

policy decisions as well as build support for programme activities.

Funding decisions, project selection, and priority-setting are managed by FAO and WFP, through a core team, and communicated via the FSL sector coordination meetings. During the Consolidated Appeals Process, agencies submit food security proposals to their local FAO offices, which are then consolidated centrally. Proposals for CHF funding are vetted, combined into a package, and defended before a larger board by FAO and WFP.

A review of the FTS database gives a more comprehensive view of the agencies funded for FSL activities and reveals trends over time. As there are too many agencies to list individually, they have been categorized by the usual organizational types: national NGO (NNGO), international NGO (INGO), United Nations agency (UN), and International Organizations (e.g., IOM, ICRC, IFPRI). These agencies are the primary agency for each proposed project. Many projects listed multiple implementing partners. For example, many listed State MoA or MoAR as implementing partners, though no government agency was directly funded through this channel.

Catley et al. (2005) have observed that NGOs working with livestock can be separated into two groups: those with a primary focus on livestock and livestock-based livelihoods, and those with a broader focus and small proportion of their programming aimed at livestock support. The agencies in the first category generally have more technical expertise in livestock needs, while the latter agencies tend to hire technical expertise as necessary, but do not maintain long-term technical capacity. Unfortunately, as Catley points out, much of the learning experienced in implementing an activity also leaves with the temporary expertise. In reviewing the actors in the FTS and UNCT databases, it appears that the only INGO specializing in livestock is VSF, though there are a fair number of NNGOs that represent pastoralist or nomad groups. It may be helpful to identify these agencies for additional LEGS training, perhaps encouraging them to support a network of other NGOs working in their target areas, providing both technical support and local knowledge. Not only would this raise the capacity and profile of these key actors, but it would also increase dissemination of LEGS and help to improve livestock programme quality. (Catley et al., 2005)

Local Agency Capacities

A reported priority among international agencies in Sudan is to increase participation and capacity of local agencies, which may also reflect the governments’ call for the nationalization of the humanitarian programme in 2009, following the expulsion of 13

INGOs. Looking at Figure 11, below on the left, we see the numbers of agencies requesting funds. In 2009, the field is clearly dominated by INGOs, and UN agencies outnumber NNGOs. Over the course of the five years examined, there is an encouraging, marked gradual increase in the participation of national NGOs, nearly reaching the number of INGOs requesting funding. If we stopped here, this would look very promising. If we continue on to Figure 12 on the right, we see a much less encouraging picture. Not a single national NGO is reported to have received funding in the first two years, peaking at three agencies in 2012. That is 3 agencies out of 12 that applied for funding, or 25%, as compared to 62% of INGOs and 100% of UN agencies.

The Darfur Community Peace and Stability Fund managed by UNDP showed similar results for 2010. About 50% of the applications received were from national organizations (20 out of 41), but only 1 of the 13 recommended for approval was from a national organization (Joniaux, 2010), even though the peace initiatives are meant to “restore trust and confidence

among conflicting communities at grassroots level (p. 4).”

There are a number of possible explanations for these differences. One is that national NGOs simply did not report when they received funding from other sources, though the FTS claims that it actively seeks reports from those agencies in its database. Another possible reason is that, although the FTS does contain primarily proposals captured in the CAP or Humanitarian Work Plan (HWP), it also contains sources of funding outside of the CAP. INGOs would clearly have more access to such funds, often from institutional donors who would be likely to report them. Finally, it may be that national NGOs’ proposals were sub-par, or they were deemed not to have the capacity to carry out these activities, so a higher proportion of the funding went to INGOs. Regardless, it appears that an increasing number of national agencies were encouraged to apply for funding through the CAP, with little success. This raises important issues related to capacity building and questions regarding the proposal development process and the support available to national agencies. Indeed, capacity

building of national partners in Sudan has been a strategic priority for the 2012 and 2013 HWPs. Still, this suggests there is a reticence on the part of the international community, which may in turn be a lack of experience in developing meaningful partnerships with local NGOs, suggesting two-way capacity building is needed. A recent mapping and capacity assessment of civil society organizations in the Darfur region recognized their weak capacity and also presented a framework for strengthening this (PDS, 2009).

While the FTS database gives us a sense of the number and types of non-governmental actors, it does not shed much light on the governmental actors. The UNCT survey specifically asked which government partners each agency worked with. These were agencies with a mix of sector specializations, though most had some livestock activities. Additionally, the FTS database does have a column for Implementing Partners. Some agencies were very thorough, while many others left this blank. Regardless, viewing them together, we can gain a sense of the government agencies most commonly involved. The State Ministries of Agriculture and of Animal Resources were the two most commonly cited. A number of

Figure 11

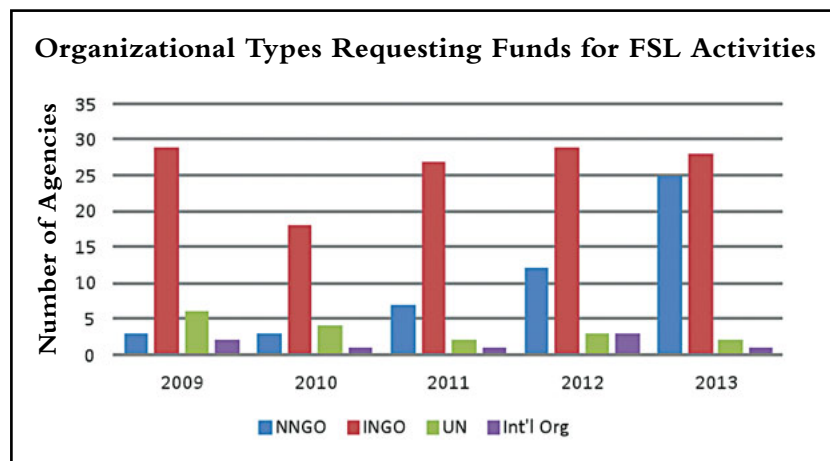
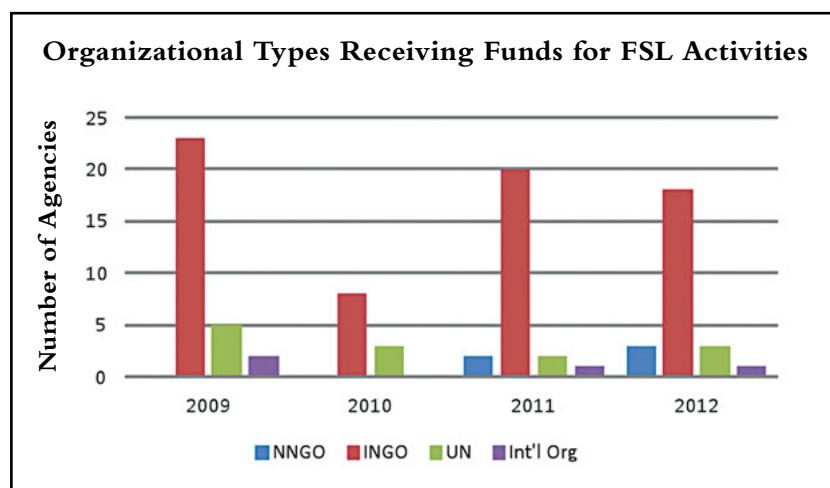


Figure 12



departments within these two ministries were also listed, including: the Animal Resources Bank, the Animal Resources Services Company, and the (now defunct) Livestock and Agriculture Development Company. The National Forest Corporation was listed for tree-planting activities. The State Rural Water Corporation (WES) was listed for those providing either drinking water or *hafirs* for animals. Additional occasionally mentioned government agencies included HAC and the Soil Conservation Department. Some agencies are specific to a region, like the Jebel Marra Rural Development Project.

In recent years, there have been several transitions in government structures: from pre-CPA to a post-CPA interim government, and since 2011 to a post-secession government including the recent restructuring linked with austerity measures. Each transition has been associated with a shift in responsibilities and authority among ministries and their departments. In the most recent reshuffle, in July 2012, five seats were eliminated in an effort to reduce the bureaucracy. The Ministry of Agriculture and Irrigation and the Ministry of Livestock and Fisheries remain separate, but it is unclear if there were changes in responsibilities within these ministries (ARB, 2012). As agencies form partnerships with a fluid bureaucratic and power structure, they will need to remain nimble and alert to the implications of this restructuring.

4. Analysis of Expenditure

Sudan, pre- and post-secession, has experienced multiple simultaneous protracted and short-term emergencies that are distinct though somewhat related. As they progress through their various stages, needs change and different sectors receive more or less funding. In the FTS database, all proposals are categorized into sectors (e.g., Health, Coordination, etc.), with the sector labels changing slightly from year to year. Some sector labels, like “refugees” appear or disappear from the database altogether. In the midst of these variations, the secession of South Sudan has led to the gradual separation of funding streams to each country.

Years 2009 to 2013 were pulled from the FTS online database. In 2009 and 2010, all grants for the North and South were listed together. In preparing the data for this analysis, programmes that were completely in the South were deleted, but some that covered areas in both the North and the South were left in. Secession happened mid-year in 2011, and most funding was separated, though some remained mixed. By 2012, all funding listed was completely for the “North” or the Republic of Sudan. As a result, total funding in 2009 amounted to 1.3 billion USD, which declined to 543 million USD by 2012. This massive reduction in funding for the Republic of Sudan partly reflects the redirected funding allocated to South Sudan as a separate entity, but this cannot completely account for the decline in total funding.

Examination of the trends in the percentage of requests actually funded may be as informative as total amounts funded, as well as comparisons in levels of funding between sectors. The percentage of total requests that were funded in all sectors declined steadily from 75 % in 2009 to 52% in 2012. Food Aid and Coordination/Common Services, both UN-dominated sectors, were the two sectors that regularly received the highest percentage of requested funds, ranging from 96% to 73%. The amount of funding provided for food aid consistently takes up fully half of

the total funding. The percentage of requests funded for non-food-aid Food Security and Livelihoods (FSL) activities fluctuated considerably from a high of 59% in 2009 to a low of 39% in 2011. FSL activities ranged consistently between 3 and 6% of total funding.

FSL activities appear to be funded to about the same level as the Health, Nutrition, and WASH sectors, all of which vary considerably from year to year, both in percentage of requests funded and in the amount funded. These are slightly less than for Education but double those for NFI/Shelter and Support for Returnees.

Comprehensive detailed budget information was not available, though some budgets for the CHF were available for 2011 and 2012 as individual budget files. Taking a sample of the CHF FSL proposals from each year, funding for livestock activities was broken out from the two other primary categories—agriculture and income generation (IGAs). In both years, about 59% of all costs were direct programme costs. FSL activities constituted about 15% of the total budget, while direct costs for other activities combined constituted about 44% of the total budget. About a third of the sample did not have any livestock activities, but none had only livestock activities. Most were a mix of the three. In only about 20% of the proposals did livestock activities use more of the funding than the other activities.

From this sample, I can roughly estimate that a quarter of all direct costs in FSL programmes are attributable to livestock. I then make a very big assumption that livestock and other programming require on average about the same amount of support costs relative to direct costs. If I apply this 25% figure to the total non-food-aid FSL funding listed in the FTS database, I can estimate the total amount of funding each year in the CAP dedicated to livestock activities (Table 1).

The fluctuation in funding between years on total FSL and livestock only are difficult to explain

Table 1: Total Funding for FSL and Livestock Activities in Millions of USD

	2009	2010	2011	2012
Total FSL activities	53	32	37	30
Livestock only	13.3	8.0	9.3	7.5
% FSL requests funded	59%	41%	39%	45%

conclusively in relation to the evolving humanitarian needs. The years 2009 and 2011 saw poor rains, while 2010 saw very good rains. The highest levels of funding coincide with the poorest rains. At first, this would seem appropriate, if funding levels were based on drought-related needs. Looking at the typical activities though, most would normally be conducted in the recovery phase in the first good season. The most common activities were seeding pasture or fodder, restocking animals, and supporting Vet Services. Of these, the most appropriate was the Veterinary Services. As noted by LEGS, restocking (the most expensive activity per beneficiary) should generally not take place until pasture has been regenerated the following rainy season. Similarly, the benefits of seeding would require rain and would not provide immediate support.

If, on the other hand, funding levels were in response to insecurity, it seems that it should be generally increasing rather than trending downwards, as there was more livestock-related insecurity in 2011 than in 2009. The year 2011 had both a lack of rain in areas and insecurity, both of which directly affected livestock and agriculture. It does appear that requests for funding increased in 2011, but funding was not provided. A further factor to consider was the expulsion of international agencies in 2009, which temporarily may have reduced the capacity of the international agencies and impacted their submission of proposals.

A better understanding and analysis of these funding trends, and their association with the evolving context, should help to identify funding priorities, significant gaps, and strategies for medium- to longer-term funding modalities.

5. Discussion and Conclusions

Application of LEGS in Sudan

With several humanitarian crises occurring simultaneously in different parts of Sudan, there is a large humanitarian presence working to save lives and protect livelihoods. Livestock activities are provided alongside agricultural activities to promote and protect livelihoods. In an effort to improve the quality of livestock programming, LEGS has been introduced. LEGS has provided: a framework with which to organize activities; guidance on when different activities are appropriate; and a common language in talking about these activities. Most importantly, it has raised the profile of livestock programming in Sudan. The real effects of this increased awareness of livestock programming and related guidance are mixed. While a review of funding trends does not show any increase in funding for livestock programming, the proportion of agencies engaging in livestock activities has increased.

A review by Aklilu of the influence of LEGS in Kenya just over a year after its introduction showed that the greatest limitation was its transference and spontaneous uptake among implementing agencies at the field level (Aklilu, 2010). The general lack of change in livestock programming activities in Sudan over the past three years in areas where the livestock situation has changed dramatically (even in those agencies promoting LEGS at the higher levels) may be a warning sign that the impact of LEGS training remains with the individuals trained in workshops in Sudan as well. A mechanism may need to be incorporated into the training to encourage further dissemination of the lessons learned. In reading through numerous proposal summaries for this review, it became apparent that certain activities, like restocking, go through phases of popularity. It would be instructive to review why certain programming activities have sudden surges in popularity and uptake and apply those principles to the uptake of other aspects of LEGS.

One aim of LEGS is that programme design becomes more evidence-based. Proposals consistently make mention of needs assessments, but never of impact assessments or of adjustments in programming due to learning from previous years. This lack of inbuilt learning and community-based reflection has major implications for the continuing relevance and appropriateness of humanitarian programmes.

Programming beyond LEGS

LEGS provides a good operational framework and practical guidance for selecting and designing activities from within a widely accepted range to directly support the immediate physical needs of livestock. Yet LEGS, as it is currently structured, is only one aspect of a much broader, more holistic livelihoods approach to supporting livestock-based livelihoods. The aim of humanitarian response is to prevent human suffering and save lives. Livestock responses can be considered humanitarian only in that they support and protect the livelihoods on which people and their communities depend.

There were few attempts by agencies to broaden the range of activities beyond LEGS. Veterinary services are the most common activity and are increasing in popularity. These are primarily the provision of training, starter kits of drugs, and equipment to CAHWs, and vaccination campaigns and treatment. The other two popular activities are re-seeding pasture and the provision of livestock. Occasional FFW or Cash for Work activities will dig or rehabilitate *hafirs*.

More locally specific or innovative activities that go beyond the six LEGS options included demarcation of migratory routes, small income-generating activities to make cheese, and the construction of slaughter slabs in the marketplace. There appeared to be little experimentation with new types of activities that might mitigate vulnerabilities to crises or increase resilience, or with testing new strategies for livestock systems. It is possible that this experimentation is happening, but was not captured in the available information.

Project responses that seek to understand the broader elements influencing local livelihood systems (other than keeping animals alive and healthy) would help to maximize the benefit derived from livestock. For example, an analysis of the threats to livestock development strategies would help to identify how they might be reduced or mitigated. Other crucial questions include: which activities may increase a family's vulnerability; how do livestock also serve as financial and social assets, which might be affected by the disaster or different responses; what processes, institutions, and policies may be preventing families from gaining full benefit from their animals; how will a crisis affect the terms of trade for animals or animal products; what strategies do families use to manage the herd to maximize their benefit from the animals and how can we support those? Examples of practical support are highlighted in a recent report

on livestock trade and markets in the Darfur region¹³ (UNEP, 2012).

While LEGS was intended as a “rights-based approach” in line with the Sphere Minimum Standards, it may be that LEGS is actually an “asset-based” approach. The technical options discussed are focused exclusively on direct support to livestock as they are considered the “asset” at the heart of livestock-based livelihoods (p. 10). There is little discussion either in LEGS or in current programming of the wider sets of “rights,” including the very things needed for families to sustain and derive benefit from the livestock. As the Livestock Emergency Guidelines go through a current process of consultation and revision, these questions regarding their status as a “rights-based approach” need to be clarified.

Opportunities Looking Forward

The most encouraging aspect about livestock programming in Sudan emerging from this review is the large and growing number of agencies that are engaging in livestock-support activities. Granted, the range of activities is limited, but it is hoped that as agencies become more comfortable with livestock responses, they will gain a deeper understanding of the more complex livelihood-related issues and initiate a broader-based response. As we learned from the use of CAHWs in the Rinderpest eradication campaign, sometimes the most appropriate and innovative ideas will come from the affected communities themselves, if only agencies have the confidence to listen and the flexibility to respond accordingly.

On a national scale, with the recent massive disruption in oil revenue, the government has a new appreciation for the contribution of livestock and agriculture in the development of the country and its economy. As new strategic plans place emphasis on these areas, this is the moment to take hold of this unique opportunity to engage with the government at all levels to promote a shared understanding of how different policies may affect livestock-based livelihoods. This will require the national and local stakeholders to continue to organize themselves and reach agreement on the key messages to be directed at the new government structures so that they are presented with one voice.

Recommendations:

Promote learning and the evidence base.

Evidence-based programmes are based on an existing body of good practice and knowledge, combined with a continual process of learning based on the results of rigorous evaluations and impact assessments, and using that information to improve future programming.

1. Sudan has a long history of innovative livestock programming that reflects local needs and issues. There is a need to capture and promote these successes. Some examples are: opening up stock routes, promoting local peace-building between farmers and herders, and promoting integrated water resource management that reflects the needs of multiple users.
2. Incorporate into the annual funding cycle regular systematic reviews of activities coordinated by the food security and livelihood cluster, to determine the trends in humanitarian funding, coverage types and appropriateness of responses, and the collective lessons from evaluations and impact assessments.
3. Change the view of applying monitoring and evaluation systems to individual grants for grant-monitoring purposes to a larger programmatic approach. Although most individual grants are for projects of 12 months or less, they are nearly always components of larger, multi-grant, multi-year programmes. In addition to the current individual grant-based process indicators, actors should include impact indicators and ensure impact assessments are conducted on all programming in an area on a regular basis. Results of these can be presented to the FSL cluster and used to draw up or adjust priorities for programming and best practices.
4. Post outcomes of these activities together on a single platform so others can learn and incorporate them into programme assessments and design. The FSL Cluster website would be an appropriate, logical platform to use.
5. Identify agencies with evidence of consistent high impact and strong expertise in livestock programming and provide them with opportunities to guide other multi-sector agencies, who would like to incorporate livestock activities into their programming.

¹² Such as providing credit for livestock traders, improving physical market infrastructure, and supporting the production of leather and hides. UNEP, 2012, “On The Hoof: Livestock Trade in Darfur,” Feinstein International Center, Tufts University, Medford and United Nations Environment Programme Sudan.

Expand beyond the current limited range of livestock activities.

The step from learning to implementation and impact is made through experimentation. Currently, there is a limited range of activities and little evidence of expanding this range.

1. Highlight on the FSL Cluster site particularly innovative and successful programme strategies or activities.
2. Encourage the inclusion of small pilots or trials of innovative activities within larger proposals.
3. Encourage community-initiated and -managed activities, with support to document their processes and outcomes. These can often provide valuable sources of innovation and adaptation to local needs that can be increased to scale.
4. Consider the larger livelihoods framework. Encourage activities that increase benefits people can obtain from their livestock (e.g., value chain support to increase producer prices).
5. Protracted and chronic emergencies are typical in Sudan. Include resilience and disaster risk management as a component of all livestock activities in all stages and types of crises rather than waiting for a separate post-crisis phase.

Maximize the expertise and experience available through more equal engagement of all actors.

Currently the burden of coordination rests almost completely with FAO.

1. More systematically integrate NGO actors, local and international, but especially more of the relevant government ministries and departments, into the coordination and policy-making process. Promote mutual understanding of the landscape of both national and international actors to remove barriers created by mistrust about intentions and representation.
2. Criteria and deliberations behind proposal funding decisions, to include UN agency funding requests, should be transparent and publicly available to promote both trust and learning.
3. Create a separate proposal development and evaluation process for national NGOs to assist them in the proposal process and increase their chances for funding successful, high-impact programmes.

6. Resources

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Annex 1. Methods

This paper combines a desk review of secondary sources of information, complemented by about 20 key informant interviews in Khartoum, and supplementary information collected in the case studies.¹⁴ A literature review on the recent history of emergencies in Sudan and their impact and responses formed the basis for the initial sections of the paper. Unpublished information was provided by the agencies involved in the introduction of LEGS in Sudan to support the analysis of the appropriateness of this approach to Sudan and its actual impact on programming.

Livestock activities are included within the Food Security and Livelihoods sector, along with cultivation, income-generating activities (IGAs), micro-credit, natural resource management, and food aid. Where possible, food aid was separated from food security activities, as the resources dedicated to food aid eclipse all other activities and sectors. Most food-for-work/food-for-recovery activities incorporated the cost of the food and its distribution in WFP budgets, while the cost of the activities themselves was included in the food security budgets of the implementing agencies. Because WASH activities did not target animals or incur measurable additional expense in adapting water sources for their use, WASH funding was not reviewed to the same level of detail as Food Security and Livelihoods (FSL) funding.

The UN Office for the Coordination of Humanitarian Affairs (OCHA) maintains an online database of “all reported international aid,” called the UN Financial Tracking System (FTS). The primary source of information is the Consolidated Appeals Process, but information is also solicited directly from donors, the Red Cross/Red Crescent Movement, NGOs, and other sources. This information is compiled and presented in a searchable database. Each entry has a link to a proposal summary and a very basic budget. This database was the most representative that could be found and formed the basis for much of the analysis to follow. Data from 2009 to 2013 was considered, especially in funding totals. Programming information required pulling up the proposal summary for each individual entry and creating a more detailed database of the pertinent information contained in each. Because of the amount of labor required for this process, the years 2010 and 2012 were selected for most of the detailed trends, focusing primarily on the Food Security and Livelihoods (FSL) programmes. The year 2010 was selected as the data were more easily divided between north and south, and it could be matched to

other detailed information available from other sources. The year 2012 was selected as it was the last year with complete data and maximized the time for trend analysis.

More complete and detailed information was found in proposal files and budgets proposed to the Common Humanitarian Fund (CHF). These proposals contained complete budgets and allowed some detailed insight. The years 2010 to 2012 were available, and again the years 2010 and 2012 were selected for comparison.

Additionally, the Sudan UN Country Team (UNCT) commissioned their Pastoralist Steering group (established in 2012) to conduct a survey of agencies in early March 2012 as a foundational activity to inform the UNCT about “best practice.” While coverage of the survey was too small to be considered representative, the detailed responses provide keen insights into the views and opinions of practitioners in the field at the time.

Throughout this review, analysis used LEGS as a framework. Programme backgrounds and activities were organized and discussed using the classification of emergencies and Technical Options outlined in the LEGS handbook. This provided not only a way to organize and discuss the programming information, but it also afforded an opportunity to evaluate the usefulness and appropriateness of LEGS in the Sudanese context.

¹² Conducted in November and December 2013.



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