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The Integration of Pastoral Drylands into International Humanitarian Activities

Desk Study 3 in the *Diverse Perspectives on Humanitarian Action in the Pastoral Drylands Series*

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We see the world, not as it is, but as we are.
When we open our mouths to describe what
we see, we in effect describe ourselves—that is,
our perceptions, our paradigms.

—Stephen Covey, *The 7 Habits of Highly Effective People*

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1. INTRODUCTION

International humanitarian action in rural contexts is very often shaped by how humanitarians understand a shock is impacting rural production societies, where even social aspects of life are determined by the rhythms and activities associated with people's livelihood strategies. While some humanitarian researchers and innovative practitioners have been intentionally working to adapt their approaches according to the unique aspects of pastoral contexts, more often standard humanitarian approaches have been applied without adaptation. Key informants from civil societies and local governments serving pastoral populations interviewed for this desk review report that pastoralists' needs are still very often left unmet, or that pastoralists must adapt their strategies to receive assistance rather than assistance being designed to their needs.

The existence of a disconnect between the humanitarian and pastoral systems is not news to many humanitarians, and yet the gap persists. Humanitarians are masters at resolving difficult logistical problems and getting assistance to remote populations where there is little infrastructure. So, although pastoralists often live dispersed across remote landscapes and can be difficult to reach, these are conditions with which humanitarians have experience. This implies that there appear to be deeper, possibly systemic barriers that inhibit inclusion of pastoral populations in ways that are easy to see on the surface. This desk study will therefore examine in detail the dynamics as to why this disconnect endures to see a path forward to surmount these barriers.

This desk study reviews how the international humanitarian system in general approaches pastoralists' unique needs in times of crisis and examines the specific disconnects that together create a larger dynamic characterizing the disconnect between humanitarian action and pastoral realities. It is this larger gap that is apparently so difficult to overcome. This desk study addresses the following questions:

What are the dynamics driving the reported lack of success at adapting humanitarian responses to meet unique pastoral dynamics? What are potential avenues to improve the integration of pastoral systems and unique needs into the humanitarian system to ensure they are consistently incorporated into responses?

This report will orient the reader with a brief review of the historic development of humanitarianism and humanitarian assistance as they relate to experiences with pastoral populations. This will be followed by a description of specific common perceptions of pastoralism among humanitarians and how these are melded into a type of logical framework, or paradigm, that creates a number of mismatches between pastoral needs and humanitarian approaches. We will then examine the barriers to changing these paradigms. Narrowing the focus, we will discuss findings related to three specific stages of humanitarian activities: early warning systems (EWS), anticipatory action (AA), and humanitarian response (HR), including some examples of successful integration. A final discussion will provide potential avenues toward removing barriers and promoting new dynamics to incorporate pastoralists and their unique needs into the humanitarian system.

1.1 Methods

The discussion and analysis presented in this desk study is based on a literature review and key informant interviews. This review examines the international humanitarian community's approach to three types of interventions, commonly used in the humanitarian aid industry: (1) early warning systems, (2) anticipatory actions, and (3) emergency responses, with special emphasis on the logical frameworks upon which they are based. We have adapted our definitions of these three terms in light of how they relate to key state interventions.

We conducted a literature review to systematically search a set of agreed search terms and "key words" such as "humanitarian assistance," "humanitarian

systems,” “early warning,” “anticipatory action,” “humanitarian response” in combination with “pastoral,” “drylands,” “arid and semi-arid lands,” “Sahel,” “East Africa,” and “Horn of Africa.” The literature review was then corroborated with 60 key informant interviews with academics, civil servants, civil society, and humanitarian actors, among others.

In terms of limitations, the amount of literature available is enormous, and it was necessary to be selective about which documents to include and review. Nevertheless, much of the literature available to the public is in the form of institutional guidelines, repetitive critiques, or implementor guidelines and reports that focus on success stories of intervention successes. Regardless of the plethora of documents on the general topics, relatively few documents

focused on humanitarian activities or procedures specific to pastoralists in drylands. Those that did often referred to each other in a somewhat circular fashion. While the desk study aimed to cover the full Sudano-Sahel and Greater Horn of Africa, there remains a dearth of information on pastoral populations in certain countries, such as Eritrea (Maxwell, Lentz, Simmons et al., 2021).

Interviews were conducted by a team of interviewers. Where possible, two or more interviewers were included. In most cases, interviews were recorded to facilitate more comprehensive notetaking and more accurate quotes. Documents and interview transcripts or notes were partially coded using NVivo Release 1.7.1 to facilitate a wider integration of perspectives.

2. THE DEVELOPMENT OF HUMANITARIANISM IN RELATION TO PASTORAL CONTEXTS

Until the late 1960s, humanitarianism was a relatively ad hoc and unstructured affair, with some rare exceptions for exceptionally large and politically relevant crises (Walker and Maxwell, 2009). Learning was retained within small membership groups and not passed to new cohorts of humanitarians in a structured manner (Davey et al., 2013; Walker and Russ, 2010). During the 1970s and 1980s, humanitarian practices and standards became more formalized (Davey et al., 2013; Walker and Russ, 2010). Most major humanitarian responses in Africa were in drought-affected regions of the Sudano-Sahelian region and included large pastoral populations (Davey et al., 2013). Although individual seminal works were produced on the nature of food security and humanitarian crises, the industry was still nascent, and the learning was not systematically incorporated into industry-wide standards,

methodologies, or coordinating bodies (Davey et al., 2013; Sen, 1981; Young, 1992).

During the 1990s and early 2000s, humanitarian assistance came to be viewed as a profession (Walker and Maxwell, 2009; Walker and Russ, 2010). A new generation of humanitarians entered the humanitarian sphere, working largely in regions where pastoralism was rare. During these years, informal technical sectors formed and then were modified, standardized, and formalized into the UN Cluster System (OCHA, 2020). Increasingly sophisticated and standardized technical approaches to activities like needs assessments, beneficiary targeting, monitoring and evaluation, and a relatively small menu of humanitarian responses were developed and taken on by the humanitarian community as a common way to do business.

Standards of care were developed and encoded in the Sphere standards (Sphere Project, 1998, 2018).

The standards and coordination structures of the 1990s and early 2000s were based largely on humanitarian experiences during those years in regions dominated by sedentary cultivating populations. Aid was provided primarily in camps. For example, the 2004 Sphere minimum standards for “shelter” are linked very closely with “settlement,” and the water supply chapter refers to fixed systems and facilities within fixed settlements (Sphere Project, 2004). On the other hand, in Somalia, the Food Security (and Nutrition) Analysis Unit (FSAU/FSNAU) was born in 1994 (a prototype of the FEWS NET and IPC systems)¹ and was initially highly influenced by the unique aspects of pastoral systems (FSNAU, 2023).

It was not until around the mid-2000s (with the Darfur conflict and the rise of extremist militant groups) that the humanitarian focus in Africa shifted back to the Sahel and the Horn of Africa (ICG, 2004; Lubbers, 2004). Humanitarian personnel with their newly formalized systems, procedures, tools, and methods were transplanted to pastoral regions in the Sahel. Over the past decade, as experience in African drylands has grown, humanitarians have increasingly noted that many of the current standards, systems, and procedures, built on experiences in nonpastoral contexts, are ill-fitting for humanitarian responses to support pastoral systems (Ali and Hobson, 2009; Caravani et al., 2022; Catley et al., 2012; Dario Magnani and Ancey, 2022). But by this time, parts of the system necessary to function had been solidified. The extent to which these were entrenched could be difficult to see from inside the system, making adaptation to new environments highly challenging.

3. PERCEPTIONS AND PARADIGMS

Our experiences shape our understanding of the world. From infancy, we compare experiences, looking for patterns to make general conclusions about the world around us. After several experiences when a specific action results in a specific response, we then expect that action to result in that response the next time the action is made. We begin to develop a framework of principles for actions and responses, often structured not just by what we see happening, but by our hopes of what we want to happen, our values of what we think should happen, and other (often unrecognized) internal processes (Kuhn and Hacking, 2012). According to Kuhn, these frameworks become a paradigm, a way to organize our learning and our expectations of dynamics in the world.

Kuhn proposes that when it isn't clear whether the action in our example did indeed lead to the expected response, our expectation that it will occur

may even cloud our judgment of whether it did occur, and we may still honestly perceive that the response we were looking for actually did transpire (Kuhn and Hacking, 2012). Jamieson explains, “Perception is the process of selecting, organizing, and interpreting information. This process...includes the perception of select stimuli that pass through our perceptual filters, are organized into our existing structures and patterns, and are then interpreted based on previous experiences” (Jamieson, 1985).

As Jon Dajci puts it, “Perception and paradigms are two closely related concepts that play a significant role in shaping our understanding of the world. Perception refers to the way in which we interpret and make sense of sensory information [or even humanitarian data], while paradigms are the mental frameworks that we use to organize and interpret that information. Our paradigms are shaped by our experiences, beliefs, and values, and they influence

¹ *Integrated Food Security Phase Classification (IPC) and Famine Early Warning System Network (FEWS NET).*

the way we approach problems and make decisions” (Dajci, 2023). Andrew Finn confirms, “Once a paradigm (or model) is established or accepted, an interesting thing happens, it shapes how we interpret facts.... Ambiguous evidence is often interpreted as favoring the theory” (Finn, 2019). Dajci cautions that, “the power of paradigms is that they are often so deeply ingrained that we are unaware of them” (Dajci, 2023).

But there is hope that paradigms can be recognized and therefore changed to match the data. According to Jamieson, “To the extent that we can become more fully aware of the values, beliefs, and assumptions that underlie our thinking and our work, we can partially free ourselves of the sometimes unnecessary and often harmful constraints they impose upon our thinking” (Jamieson, 1985). Dajci also proposes to overcome limiting paradigms by “actively seeking out new experiences and perspectives that challenge our existing paradigms” (Dajci, 2023).

So, paradigms can be useful to help us organize the lessons we learn, as long as we are aware of how our paradigms can influence our perceptions—the way we interpret data into lessons, and the lessons that form a paradigm. To break through to the next paradigm, we must seek new experiences and critically challenge our conclusions constantly trying to see those conclusions from new vantage points.

3.1 Humanitarian Perceptions and Paradigms of Pastoralists

Poor understanding of how a pastoralist experiences crises [is] “rooted in misconceptions and poor interdisciplinary understanding, while being largely overlooked in international sustainability forums and agendas.”

(Manzano et al., 2021, 651)

In the interviews for this study, key informants were consistent in their view that pastoralists are regularly excluded from humanitarian assistance, or the assistance they receive is not appropriately structured to meet their unique needs. The two major reasons they gave were related: that humanitarians (especially but not only international humanitarians) don’t understand pastoral systems

and needs, and that without understanding the unique aspects of pastoralism, humanitarians default to and apply the dynamics of sedentary cultivating populations. These two items form the basis of the paradigm that shapes how the international humanitarian system views pastoralism and the application of standard methods and response designs. During the 1990s and early 2000s, a time when many current methods and approaches to designing humanitarian responses were being formalized, the humanitarian community was heavily engaged with camp-bound or sedentary cultivating populations. By codifying the lessons learned in these contexts, the humanitarian community has generalized their application to other contexts and built organizational structures, standards, and best practices around them, institutionalizing those lessons into a default and inhibiting their adaptation. The danger of a paradigm is that it is often invisible to those holding it. It is therefore difficult to confront a paradigm to change it, even when there is evidence that the paradigm needs adjustment or replacement, or to see how it colors perceptions (Dajci, 2023; Devlin and Bokulich, 2015). The very bases for the lessons underlying these structures must be openly examined to facilitate adaptation to contexts where those lessons may not apply (Lane and Lane, 1981).

“The biggest problem with humanitarian responses is that the humanitarians have little understanding of the situation for pastoralists. They need to reflect with the pastoralists.”

(Interview with a national actor, September 6, 2023)

“All [responses] are developed around settled people—introduced from abroad, based on surveys, assuming people are in one place, like IDPs [internally displaced persons]. It’s very difficult to find pastoralists in an IDP camp.”

(Interview with a national practitioner, August 7, 2023)

The following subsections will explore some of the ways standard humanitarian paradigms clash with pastoral systems and color perceptions.

3.2 Paradigms of Ownership: Livestock Ownership vs. Culture as Source of Pastoral Identity

Humanitarian proposals, monitoring systems, and reports often see pastoralism as an occupation, defining a pastoralist based on their current dependence on livestock rearing (de Jode and Watson, 2023; FAO, 2016; Matere et al., 2020). In contrast, academics studying pastoralism, agencies working very closely with pastoral societies, and most pastoralists themselves instead link pastoralism with an identity and culture as much as or more than as an occupation (Catley et al., 2012; Manzano et al., 2021; Scoones, 2023b; Scoones et al., 2023; Young et al., 2009). This culture has its own norms and structures that guide behavior, access to resources, patterns of interactions with others, ways of conducting activities, and resilience strategies. On the surface, the cultural features of pastoral populations appear to be unrelated to the herding livelihood, but they foster more productive pastoral systems through regulating the interactions among pastoralists within one group, and between groups that may not be related, to the benefit of all (USAID, 2020). Under this broader understanding, a person may consider himself a pastoralist regardless of livestock ownership, if he maintains ties to his pastoral community and continues practicing pastoral customs. Regardless of his current animal ownership, someone who retains his pastoral identity may—in the event of a crisis—share resources with or expect support from others in his pastoral network. On the other hand, a young man who settles in an urban area and abandons the social connections and mores of his pastoral roots is less likely to retain a pastoral identity or to be connected to these social safety nets (Fratkin, 2012). These examples highlight how pastoralism as a sociocultural identity differs from pastoralism—or rearing animals—as an occupation. Because this identity extends beyond current livestock ownership, it would be easy to assume that a community where livestock are not presently the primary livelihood activity would not follow pastoralist sociocultural patterns and a different pattern may be assumed. Humanitarian interventions observed and described by interviewees seldom considered how sociocultural values and structures associated with pastoralism might affect the design of the most appropriate humanitarian activities.

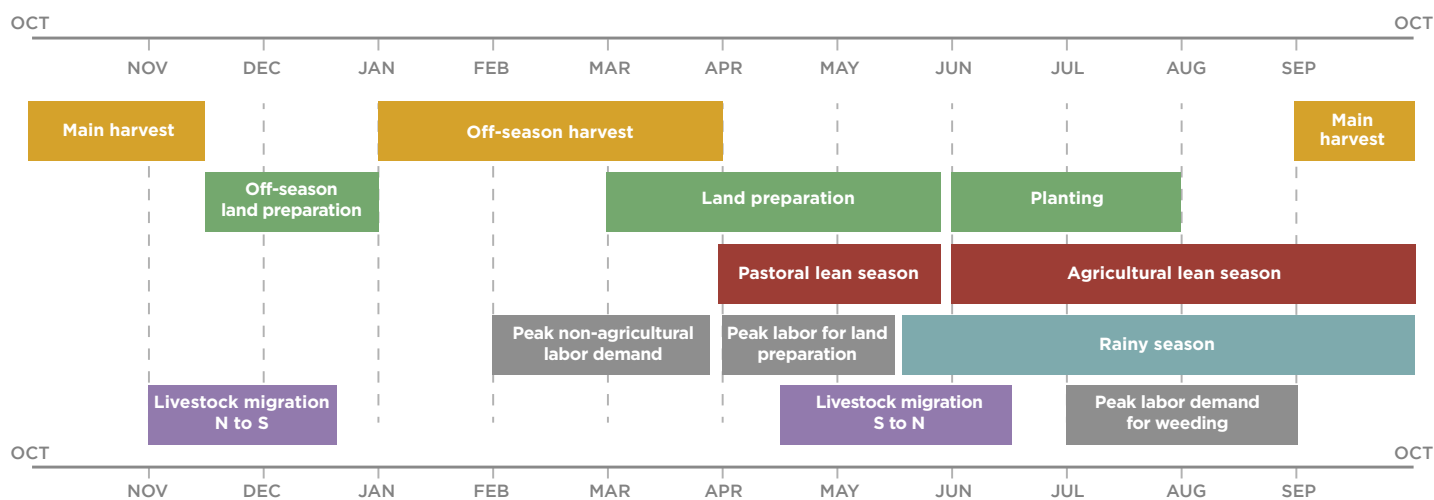
3.3 Paradigms of Social Organization: Nuclear Families vs. Extended Families

Humanitarian assistance is generally targeted at three levels: the individual, the household/nuclear family, and the community, depending on the type of assistance provided (Sphere Project, 2018; Trocaire, 2019; UNICEF, 2021; WFP, 2021). General food aid and livelihood assistance is most often targeted at the household level, with the assumption that this is the level at which resources are owned and shared (WFP, 2021). In herding cultures, livestock play many roles. For example, one herder will often strategically place livestock with the herds of relatives or other trusted people to dissipate risk of loss from crisis or raids (Catley et al., 2012; FAO, 2016). Similarly, he may loan milk-producing livestock to poorer relations to improve that household's access to milk while also reducing his own workload (FEWS NET, 2018a). These examples illustrate that, within a pastoral system, a nuclear family rarely operates independently and rarely has sole ownership or right of use over their resources. As a result, targeting based on the wealth of the nuclear family unit (or household) is complicated, as the typical concept of “ownership” does not apply well to livestock. The family unit is an extended, fluid designation based on complex social networks. Nevertheless, humanitarian interventions continue to use household-based targeting and continue to attempt to assess wealth based on household livestock ownership.

3.4 Livelihood-Based Paradigms: Agricultural vs. Pastoral Seasonality, Rhythms, and Mobility

Both sedentary cultivating and pastoral livelihood specializations have seasonal activities that impact household access to food and income (see Figure 1). These two specializations often coexist within the same geographic area, sharing the same services, market systems, and many natural resources. Despite this coexistence, these groups use the same shared natural resources differently and with variable seasonal impacts of resource use on the well-being of household members (Fitzpatrick and Satti, 2022). The lean seasons, periods when some household members are most vulnerable to food insecurity or malnutrition, differ by dependence on livestock or cultivation (Branca et al., 1993; Marshak et al., 2021, 2023; Rogawski McQuade et al., 2019; Venkat et al., 2023). Until recently, it was not widely recognized

FIGURE 1. FEWS NET seasonal calendar for Chad (FEWS NET, 2023b)



that malnutrition among pastoralists in arid and semi-arid areas of Africa often peaks late dry season, while malnutrition among those depending more heavily on cultivation usually peaks just before harvest (Marshak et al., 2021; Venkat et al., 2023). It is only by disaggregating pastoralists from cultivating populations that we can see the unique seasonal patterns of malnutrition.

Cultivating areas are generally much more densely populated than pastoral areas, and a much larger percentage of the overall population is usually located in these areas. Not surprisingly, this means that the humanitarian system and its monitoring and data collection components are most often set to the rhythms of need and scarcity associated with cultivating activities. For example, IPC analysis and reports often occur at the start and end of the agricultural lean season (Cadre Harmonisé, 2022). Given the population balance in many countries, this timing makes sense, and it would be complicated to have multiple survey and EWS cycles based on each livelihood group. Therefore, although EWS in countries with significant pastoral populations do sometimes include distinctions between pastoral and cultivation seasons, data collection, analysis, and reporting schedules are still usually organized around cultivation seasonality. This means they may miss some of the seasonal variations of outcomes among pastoralists.

Unless an agency specializes in serving pastoral populations, humanitarian approaches rarely

appreciate how mobility works with variability to maximize productivity and to minimize risks in arid and semi-arid regions. Humanitarian activities, whether for early warning, anticipatory action, or response, generally assume a population is fixed in a geographic location. In addition, the humanitarian paradigm associates variability—which is the keystone of pastoral production—with risk and therefore seeks to predict and control variability in order to shield populations from its impact (Cabot Venton et al., 2012; Macherera and Chimbari, 2016).

The humanitarian system itself works with fixed assets (offices, warehouses, etc.) strategically based to access targeted populations. Geography most often defines humanitarian activities. This includes assessment strategies based on fixed residences or a full list of nuclear households, as opposed to

“Most crisis services and responses directed to humans in Chad assume humans are stationary. Human support goes to fixed villages, and livestock support goes to animals.”

(Interview with a national actor, September 5, 2023)

populations that may be in motion, with fluid household structures (SMART, 2017). The underlying and largely unrecognized assumption is that people registered at one location will still be there when the intervention is implemented. For mobile pastoralists,

this means they must return to where they registered or risk exclusion. In addition, systems based on fixed locations struggle to monitor the health and nutritional status of mobile populations, and the absence of these populations from monitoring or project activities is rarely noted. In a case in which one of the authors of this study was collaborating with an international nongovernmental organization (INGO) on research, the INGO staff told the author

“When NGOs do assessments, they count people and plan their activities to that number.... Then when it comes time to distribute something, the nomads may have returned but find they are not on the list. So the mobile populations are excluded.... The NGOs plan by locations, not by populations.”

(Interview with a national actor, September 6, 2023)

before departing to the field that there were no pastoralists included in monitoring activities or surveys because there were none in the project area. Yet in the first village visited, with appropriate questioning, the village chief explained that the nearby camels belonged to a pastoral group who encamped not far away each year during that season. He then called the pastoral leader on his phone to arrange a meeting with them. In another case, a consultant was hired to conduct a monitoring and evaluation review of a project based on a representative survey within a project area in Darfur. There were very few pastoralists listed in the results of the survey, leading the consultant to conclude that there were few pastoralists in the region. On further inspection, the authors found that the sampling strategy had been based purely on the geographic selection of permanent communities, thereby unintentionally excluding most of the mobile pastoralists from both the survey and the project activities.

The fixed-placed assumptions of the humanitarian model also have implications for receipt of emergency relief. A key informant described a food distribution program based on the rainy season registration of a pastoral population.² But these pastoralists usually needed food aid during the *dry season* when the herds were far from the rainy

season pastures. To access the food relief, they would have to divide their households to leave some people in the rainy season areas, thereby splitting their families and reducing the labor available to care for the herd.

On the other hand, another interviewee from the same region described a successful government effort to take routine human and livestock vaccinations to mobile populations.³ A team simply used mobile phones to call leaders within groups of pastoralists to organize periodic mobile vaccine clinics wherever the herds were at that moment. Other service providers then began adding other services to profit by the contacts. This same interviewee also described an adaptation of government school services, changing the term schedule in dryland areas to align with the period when a pastoralist group was located within a region rather than sticking strictly to the national school schedule.

Many of the standard approaches that facilitate rapid response in a crisis include assumptions of stationary populations. Adapting these approaches requires careful planning and attention to pastoral movements. However, by using increasingly ubiquitous and simple technological innovations—or even just flexible designs—humanitarians who recognize the unique aspects to pastoral systems are beginning to find new ways to adapt their approaches to connect with pastoralists, regardless of location.

3.5 Paradigms of the Future: Controlling Risk vs. Flexibility in the Face of Uncertainty

Within the largely western, modernistic humanitarian paradigm, it is possible to identify and predict potential risks and then eliminate them to minimize the impact of shocks upon the population (Catley et al., 2012; de Jode and Watson, 2023; Senay et al., 2015). The humanitarian system uses early warning systems to identify potential impending risks of a shock (Biradar and van Ginkel, 2021; FEWS NET, 2018b; Matere et al., 2020). Within this paradigm, the future is perceived as an outcome of the past and present; therefore, with enough technical skill it can be reliably predicted and prevented (Roe, 2020). As one disaster risk reduction (DRR) manual

² Interview with national actor, September 5, 2023.

³ Interview with national actor, September 6, 2023.

“In contexts dominated by variability, where sufficient knowledge for prediction cannot be secured, optionality is a substitute for knowledge and a way of managing risk. If I cannot predict what is my best option, my best option is to keep my options open until a decision can be made in real time.”

(Kratli, 2015, 26)

explains, “Through hazard assessment, the likelihood of the occurrence, the severity and the duration of various hazards are determined” (Shah, 2013, p. 10). Following this reasoning, the environment and drivers of risk are manipulated to adapt the context to our preferences rather than adapt ourselves to the environment.

Pastoralists generally live in semi-arid environments with highly unpredictable climates, often with few basic services and frequent insecurity (Cabot Venton et al., 2012). They are constantly bombarded with uncertainty and risk that they must constantly monitor and evaluate (Caravani et al., 2022; Krätli et al., 2015; Scoones, 2023a; Scoones and Nori, 2023). The larger the migration routes, the more variables of uncertainty and risk there are. To complicate matters further, Levine notes that in Somalia, “each crisis is different and has several different causes.

“Because they live with perpetual uncertainty, people’s livelihood planning took the form of constant improvisation, not a scripted performance that is replaced with a ‘plan B’ in the event of a shock warning.”

(Levine et al., 2023, 6)

This limits the usefulness of previous crises as a guide to identifying windows of opportunity for anticipatory action in the midst of current crises. Uncertainty is the norm in countries such as Somalia” (Levine et al., 2023, 23). It would not make sense for the pastoralist to pick a small number of these risks and try to thoroughly mitigate them, while remaining potentially exposed to numerous other risks.

In the pastoralist’s paradigm, the future is both unpredictable and uncontrollable (Kratli et al., 2015; Levine et al., 2023; Scoones, 2023a). Pastoralists

are constantly networking for information about the situation in other areas, both on the state of natural resources and on potential risks (Kratli et al., 2015; Scoones and Nori, 2023). A scout may be sent out, whether on foot, horseback, or, more recently, a motorbike, to collect information (Scoones et al., 2023). At the same time, the herder will monitor signs around him, like the state of the pasture, water availability, birds that are present, what insects are visible and what they are doing, the wind, and the look of the sky or the moon (Biradar and van Ginkel, 2021).⁴ All of this information tells him the current situation and provides an indication of the near future, but he is aware that the situation can change, so he continues to monitor while making plans. His best approach is to **structure his strategies to be as flexible and responsive as possible, and the types and breadth of the information he collects is well suited to know better how to modify his strategy.** For example, if a migratory route is likely to be blocked after a certain date, the herd may migrate early to ensure access to resources on the other side of the blockage.⁵

Perhaps humanitarians can learn from pastoralists, who are experts at living with uncertainty (Scoones, 2021). Rather than investing heavily in predicting and addressing individual potential shocks, it may be less resource intensive and more effective to become nimbler at AA responses. Increasing the flexibility of humanitarian support structures may be as important as innovative AA response design. Like pastoralists, humanitarians may benefit from continuously gathering monitoring data while maintaining the ability to implement as wide an array as possible of responses that can be implemented or adapted with little notice.

“For our interviewees [from pastoral communities], forecasts, predictions and worries are simply part of the overall uncertainty in response to which the whole of life is a performance. Rather than relying on formal forecasts, interviewees described making decisions about their livelihoods in relation either to existing conditions (such as pasture drying up) or to longer-term trends.”

(Levine et al., 2023, 15)

⁴ Interviews with national actors, August 7 and September 5, 2023.

⁵ Interview with national academic, September 4, 2023.

“Just as seasonal forecasts often do not provide sufficient detail regarding the timing, quantity, or distribution of rain throughout a season or region to facilitate livelihood decisions...it remains difficult for humanitarians to determine where to initiate AA based within the short window for action. Short lead times have major implications for the kinds of actions that can be implemented.”

(de la Poterie et al., 2023, 11)

“Many are shaped by a series of shocks and stresses, acting sequentially or in combination, including climatic events such as droughts and/or floods, trade bans imposed by veterinary regulations, wars and conflicts, or sudden shifts in market opportunities. But these cannot be easily predicted: future pathways are highly contingent and deeply uncertain—pastoralists must live with uncertainty and continuously adapt and innovate.”

(Catley et al., 2012, 14)

3.6 Perceptions of Static Components vs. Dynamic Systems

Pastoral systems are composed of numerous interacting components, a change in any one of which can cause changes in others (Fitzpatrick and Young, 2023). Pastoralists navigate their way through this fluid system, strategically positioning themselves to optimize benefits while reducing risks, making choices from among multiple paths to meet their objectives, constantly adjusting their choices and strategies to get the best outcomes while still monitoring the various components. A pastoralist needs to see and understand these dynamics to actively navigate the system.

“Many development projects, aiming to modernise and control pastoralists, have failed over the years, because they haven’t appreciated the way that dynamic systems work.... However, attempting to stabilise and control a dynamic system didn’t result in the productivity gains imagined. Pastoralists by contrast don’t try to eliminate variability; they make use of it.”

(Scoones, 2021)

Humanitarians often approach a problem by conducting an assessment to create a snapshot of a situation, to identify barriers created by a crisis, potentially barriers to engaging in trade, or accessing healthcare or some similar necessary activity. Programs are then designed to address those barriers. But if the connections among those barriers or the alternatives designed by the program are not perceived, the assessment gives a static image of unrelated factors.

Occasionally, there is a bottleneck in the pastoral system. Perhaps a migration route is cut off by local conflict, and facilitating an alternate migration route may be all that is needed. But changing (or “fixing”) just one piece of the system seldom effectively alters outcomes because a shock rarely affects only one component, and the fix addressing one component will affect other parts of the system, possibly negatively (Scoones, 2021). For example, changing the migration corridor to avoid insecurity may take the herds into areas where the herder lacks networks and therefore has difficulty negotiating access to resources along his new route. Instead of fixing individual barriers or hazards faced by pastoralists, a more effective approach may be to take the pastoralist’s systems view and look at the system as a dynamic whole and ask, “How can assistance make it run better as a whole to preserve their livelihoods or to meet their immediate needs?”

3.7 Perceptions of Discrete Events vs. Continuity and Connectedness of Events

Humanitarians are primarily focused on immediate needs and may not have the long-term perspective to see the connections among events that might better inform both early warning and responses. A region that has seen multiple humanitarian crises over one or two decades and relative stability between crises is often seen by humanitarians as being vulnerable to periodic, distinct crises. But the crises are often connected through the vulnerabilities inherent in the system, the lingering effects of past shocks, and multiple intervening idiosyncratic shocks that prevent recovery from a major crisis (Fitzpatrick and Satti, 2022).

This longer, more connected perspective is especially important among pastoralists because herds require multiple years, even decades, to recover from a large crisis. A herd may easily experience multiple

“Challenges are not defined in terms of singular ‘events’ that can be ‘managed’ as risks, but as overlapping, cumulative, ordinary experiences of uncertainty.”

(Scoones et al., 2023, 10)

crises during the time it would take to recover from just one major shock (FEWS NET, 2018a). During recovery, the herder may draw on his less-visible reserves, which are the livestock previously loaned to relatives (FEWS NET, 2018a; Scoones et al., 2023). On first count, then, he may appear to have as many animals in his herd as prior to the large crisis, and to have sufficient diet and food security. However, given that his animals—and hence his risk—are no longer dispersed and he now has fewer hidden reserves, he is more vulnerable to shocks. Once a shock hits, the IPC estimates of current status may therefore deteriorate faster than expected, as happened during the Somali 2011 famine, which followed a bumper year (Maxwell and Fitzpatrick, 2012). Anticipatory action, especially, would need to be informed by the state of pastoralists’ full strategies and systems as much as or more than a snapshot of current status.

Contrary to the humanitarian’s view of shocks several years apart being distinct events, pastoralists experience simultaneous shocks and recovery as part of one long trajectory in their daily lives (FEWS NET, 2018a; Sanford, 2011). The size and composition of his herd, and his complementary activities, reflect something of a history of past experiences. They are also an indication of future aspirations. As Scoones explains, “Challenges are not defined in terms of singular ‘events’ that can be ‘managed’ as risks, but as overlapping, cumulative, ordinary experiences of uncertainty” (Scoones et al., 2023, 10).

The long trajectory of herd recovery from major shocks and the strategies of pastoralists to prevent losses are important elements that are often missed in assessing or predicting needs and designing anticipatory actions.

3.8 Perceptions of Conflict-Ridden and Unsustainable vs. Viable Livelihood Systems in High-Risk Environments

An ingrained perception of pastoralists is that they are associated with violence and conflict. Catley et

al. suggest that the nature of pastoralism and the environments where it thrives engender conflict risks (Catley et al., 2012). They note that pastoralists have a visible, portable source of wealth that can be readily stolen. Compounding the situation, they maintain herds in areas where other groups have competing interests and in remote regions with little police presence, development investment, or state protection. As Catley et al. explain, “These pastoral borderlands are, in some important senses, beyond the reach of the state, and so the development industry. Historically, these areas have been seen as both threats: sites of famine, destitution and impoverishment, and so the origins of mass migrations to cities, and threatening: undermining political stability through forms of rebellion and insurrection; as well as a source of demands for services and basic welfare from the central state, while contributing little tax or tribute to state coffers” (Catley et al., 2012, 14). With the rise of groups aligned with Al-Qaida in largely pastoral regions of the Sahel and the Horn of Africa, and finding ready recruits among discontented pastoral youth, these areas have become seen “as a threat, not just to peripheral states in the global system, but to the political, security and commercial interests of leading industrialized countries” (Catley et al., 2012, 13).

These negative perceptions of pastoralism have colored humanitarian engagement with pastoralists at all levels of the humanitarian system, from government donors to programming on the ground. It is perhaps these perceptions that are driving what appears to be an unwillingness of the humanitarian community to engage with pastoralists. In Darfur during the crisis of the early 2000s, for example, pastoralists were excluded from receiving assistance because the humanitarian community’s understanding of their role in the conflict was based only on the latest events in a long series of policies that marginalized pastoralists, endangering their livelihoods.

Another entrenched humanitarian view is that pastoralism is a backward, unsustainable livelihood (Krätli et al., 2015). In the academic literature, a long-term, ongoing debate discusses the viability of pastoralism and whether investment in herding or in diversification into other activities should be prioritized among humanitarian responses (Catley et al., 2012; Markakis, 2004; Moritz et al., 2009; Sanford, 2011; Scoones and Nori, 2023). Regardless, the consensus is that *pure* pastoralism, or the

“That many countries in the Horn and elsewhere in Africa have large expanses of dry lands that are unsuitable for agrarian livelihoods other than pastoralism, and investments in livestock still remain the most lucrative way of holding/storing value in these areas (both among pastoralists and non-pastoralists), means that pastoralism will be around for the foreseeable future.”

(Little, 2010)

engagement of pastoral livestock herding as the sole source of income, is very rarely economically possible today (Swift, 2010). Pastoralism is almost always supplemented now by other activities. But is the current decline in herd sizes due to poor policies, badly designed humanitarian and development programming, and general government marginalization? Or is the decline, as Stephen Sanford has controversially claimed, due to “too many people, too few livestock,” proposing there are not enough natural resources available to sustain the number of livestock that would be needed to support the current population through pastoralism (Sanford, 2011)? Little counters that there is evidence that additional sources of income, such as remittances, trade, or irrigated cultivation, can increase the general welfare of the pastoral family, though there are also wider negative impacts. Many of these impacts are social, weakening social interdependence and therefore social safety nets for the poorest (Little, 2010). He further explains that many barriers to the appropriate management of pastoral resources, including the loss of key elements of pastoral systems, have been identified, and some may potentially be reversed. Finally, the semi-arid lands where pastoralism thrives are most productive under traditional pastoral management strategies, especially as the increasing variability of rainfall makes cultivation riskier. In other words, even though herding is increasingly fraught, it is still likely the best use of these natural resources (Little, 2010).

John Hellan, in the same debate, proposes that the only way pastoralism will be able to continue economically and culturally is “by limiting the number of people who make a living from pastoral livestock production. That means that alternatives must be found for the population that in these terms

becomes an excess population. The notion that we can best help pastoralism survive by concentrating on policy alternatives outside pastoralism, policies that will siphon people away from pastoralism is counterintuitive and difficult. But it seems to be the only way” (Helland, 2010). Little agrees, citing the need for complementary income-generating activities to support household needs and to support herd productivity (Little, 2010).

Pastoralism remains the most sustainable, productive use of natural resources in drylands, though changes in the global economy and population growth mean that activities to complement income from herds are increasingly necessary. Pastoralists often manage herds in areas where resources are scarce and where competition for those resources brings a risk of violence. Understanding the strategies to manage natural resources and conflict within pastoral systems can inform humanitarian activities both to promote positive strategies and to prevent exacerbating tensions. A lack of understanding on this driver of conflict can lead to stereotypes and exclusion from much-needed humanitarian assistance, which will only lead to more conflict.

4. BARRIERS TO SHIFTING PARADIGMS

Given the potential negative impacts of these perceptions and paradigms, it becomes important to explore the reasons why they have not changed over time. Humanitarians face multiple barriers to gaining and applying a new understanding.

4.1 Barriers Related to Scale and Speed

In an emergency, humanitarians often aim to respond to needs at sufficient scale as quickly as possible, often with staff unused to responding to crises in the affected region. As a result, they may unconsciously select trade-offs that prioritize the application of relatively simple, generic models that are easier to implement across populations over tailored approaches that have been adapted to a particular context or livelihood system. Adapting a response to a specific crisis and context requires time, a much higher skill level for both the design and implementation of the intervention, and familiarity with the context. Standardized approaches often have more technical guidance available because they will have been tested and used in multiple crises elsewhere and will likely integrate well with internal procedures and policies. While there are real benefits to this approach in some areas, it often does not effectively address the needs of vulnerable populations in pastoral communities.

4.2 Structural Barriers to Spontaneously Learning about Pastoral Systems

Humanitarians living within pastoral areas often gain an appreciation for how these systems function through frequent contact with pastoralists and elements of their livelihood systems. With improved communications technology, a single manager can now supervise humanitarian activities happening simultaneously in multiple areas from a central point (often a provincial capital) that may be outside

the intervention areas. This centralization shifts more programming decisions to people who are no longer (or have never been) in close, regular contact with pastoralists and therefore have little opportunity to learn about them as previous generations of humanitarians might have (Donini and Maxwell, 2013).

In any industry in this changing world, we build our standard systems and methods based on past experiences and hard-won lessons. We then apply these lessons to yet other situations so we don't have to start from scratch with each new situation. But sometimes dependence on standard methods can impede adaptation and openness to new lessons. When humanitarian systems developed from past experiences or approaches that were designed from experiences serving sedentary populations in camps or rural villages primarily dependent on cultivation are applied without adaptation to pastoral systems, they can lose their effectiveness and even risk causing harm.⁶

4.3 Localization and Communication Barriers

In the name of localization, INGOs are increasingly contracting local community-based organizations (CBOs) to work directly with the affected population. The CBOs send reports to the INGO manager on activities completed. This has the intended positive effect of incorporating implementers who are more likely to understand the dynamics of the local pastoral system. Unfortunately, it also separates international humanitarians from direct contact with pastoralists, and local CBO managers very often do not feel they have the freedom, opportunity, or power to guide or question the type of data collected, methods of targeting, or the design of interventions (Easton-Calabria, 2023).⁷

⁶ Interview with an international academic, October 2, 2023

⁷ *Ibid.*

5. MANIFESTATIONS OF PARADIGMS IN THE HUMANITARIAN STAGES

This section of the report will review how early warning systems, anticipatory action, and humanitarian response activities interact with pastoralists and pastoral systems in light of the above discussion of paradigms and barriers.

5.1 Early Warning Systems (EWS)

There are multiple actors or initiatives that collect or analyze data useful to forecasting crises, such as REACH, the World Food Programme’s (WFP) Vulnerability Analysis and Mapping (VAM) unit, and ACAPS (ACAPS, 2023; REACH, 2023; WFP, 2018). The Food Insecurity Integrated Phase Classification system (IPC) and the Cadre Harmonisé (CH) focus primarily on the current status of food insecurity and malnutrition (Cadre Harmonisé, 2022; IPC Global Partners, 2019). None of these organizations or systems provide detailed early warnings, and none can be considered an early warning system per se (Cadre Harmonisé, 2022; IPC Global Partners, 2019; Lentz et al., 2020; WFP, 2018). FEWS NET is perhaps the most well-known and extensive early warning system in the humanitarian sphere and uses the IPC/CH as one analytical component among others (Lentz et al., 2020). Rather than cover all EWS, this section will focus primarily on the IPC, CH, and FEWS NET, and their integration of unique pastoral dynamics. To frame our discussion, we will give a brief description of each of these to orient the reader.

“Early warning (EW) is about tracking causal factors and trying to determine with some degree of accuracy how likely those factors are to lead to shocks that negatively affect people.”

(Lentz et al., 2020, 8)

5.1.1 The Food Insecurity Integrated Phase Classification system (IPC) and Cadre Harmonisé (CH)

The IPC is an analytical framework to classify the current status of the “severity and magnitude of food insecurity and malnutrition” of an area or a group of people (IPC Global Partners, 2019, 3). In recent years, the IPC analysis has also included projections, but these are not a required output of the analysis, and our review found they are not consistently provided. CH is a similar system in West Africa. The IPC and the CH coevolved over the past 20 years and now use almost identical analytical frameworks with almost identical outputs, but national governments play a larger role in the analyses and outputs of the CH. The CH products now appear alongside the IPC products on the IPC website, with the IPC covering 25 countries and CH covering an additional 18 countries (Cadre Harmonisé, 2023).

The best-known products of the IPC/CH are the maps of areas evaluated, color coded according to the five-phase severity classifications of food insecurity and malnutrition. The results of the IPC and CH analyses are meant to be comparable across multiple zones and are primarily meant to inform high-level decision-makers of the scale and severity of food insecurity and malnutrition in each zone to help them decide when and where to allocate their resources, and to spur the release of funds from several reserves (Cadre Harmonisé, 2022; IPC Global Partners, 2019).

Due to the extensive time and resources necessary to conduct the IPC/CH analyses, they are usually done once or twice a year, timed usually to cultivating activities, as the cultivating population is normally much larger than the pastoral population. It would be organizationally difficult to have different analysis schedules for different categories of livelihood zones and would complicate comparisons of results as well as regional effects of drivers (Cadre Harmonisé, 2022). As noted above, the timing of

the most difficult periods for pastoralists is often different from that of populations more dependent on cultivation, and the IPC/CH risks not fully capturing the needs of the pastoralist populations during their most difficult months.

5.1.2 The Famine Early Warning System Network (FEWS NET)

While the IPC focuses on the current status of food insecurity and malnutrition, FEWS NET predicts how that status will evolve over the following four to eight months to inform humanitarian decision-makers (FEWS NET, 2023a). FEWS NET is concerned with crises of food insecurity rather than all types of crises and is currently monitoring 30 countries, though a handful are evaluated entirely remotely.

FEWS NET uses the IPC analysis tools and protocols in addition to their own, developing scenarios based on the convergence of all the evidence, quantitative and qualitative, at their disposal (FEWS NET, 2018b). Backer and Billing cross-checked forecasts with later current status reports in 25 African countries, from 2009 to 2020, and found them to be accurate 84% of the time (Backer and Billing, 2021). Choularton and Krishnamurthy looked at outputs from 2011 to 2017 for Ethiopia alone and found them to be 78% accurate (Choularton and Krishnamurthy, 2019). Disaggregating the projections by zones, they found lower accuracy in pastoral zones, and transitions into crisis (from IPC phase 1 or 2 to phase 3) happened far more often in the variable pastoral areas.

FEWS NET has actively worked to incorporate livelihood dynamics, with a special emphasis on pastoral livelihoods (FEWS NET, 2018a, 2018b). FEWS NET analyses use fairly detailed livelihood baseline profiles alongside recent trends in the available current data to develop forecast scenarios, usually a most-likely and sometimes a worst-case scenario.

Conflict is a commonly experienced shock in the drylands, sometimes cutting pastoralists off from resources, exposing herds to raids and herders to violence. Yet conflict is not well incorporated into formal EWS analysis (Buchanan-Smith et al., 2023; Maxwell, 2019). Maxwell explains that while these EWS may monitor data on ongoing conflicts, these data are not helpful to predict food insecurity in general, much less in pastoral areas. He also cautions that, while incorporating more conflict analysis may improve forecasting, it could end up impeding the

process by encouraging more political pressure on the process (Maxwell, 2019).

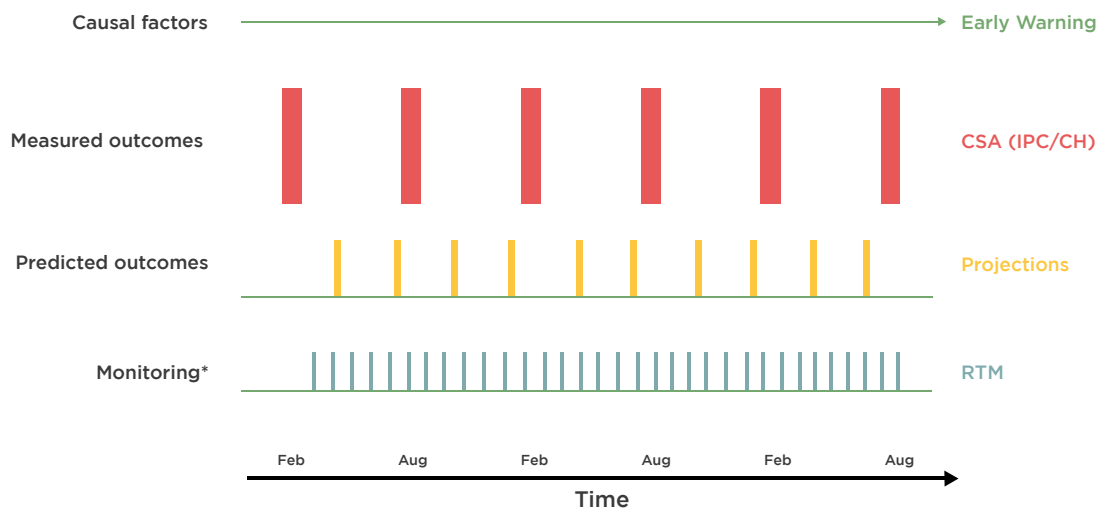
FEWS NET analysts have developed a guidance document, *Integrating Herd Dynamics into Scenario Development*, to support the analysis of pastoral populations (FEWS NET, 2018a). In addition to describing the typical characteristics of pastoral livelihoods, they describe typical seasonal patterns of conceptions, births, and livestock production, and how these are influenced by shocks. The guidance assumes that herd characteristics are directly correlated with access to food and income. This assumption misses complicating factors such as the fact that pastoralists often do not have the right to sell their livestock, as many may be borrowed from or loaned to relatives. Pastoralists also often use alternate activities, like wage labor, to pay for basic needs while reinvesting proceeds from the sale of one animal toward the survival of the rest. Nevertheless, this guidance on herd dynamics brings much-needed attention and technical support to the unique aspects of pastoralism in early warning analyses.

5.1.3 Real-Time Monitoring

Humanitarian assessments to gather data related to population status and needs are periodic and variable. EWS projections, as noted above, cover months at a time, with FEWS NET analyses conducted at four-month intervals, and some IPC analyses conducted at 6 or 12-month intervals (Figure 2). The length of these intervals in the uncertainty of events in drylands regions, especially during the development of a crisis, makes these projections especially difficult (Bailey, 2012). Lentz proposes that real-time monitoring (RTM) may be the only way to catch changes to population status or drivers and the development of hot spots during the intervals between typical EWS analyses (Lentz et al., 2020; Maxwell, Lentz, Wanjohi, et al., 2021).

Real-time monitoring in the humanitarian context is the continuous monitoring of a range of contextual and outcome indicators (Maxwell, Lentz, Wanjohi, et al., 2021). Real-time monitoring is not a new concept and has precursors like real-time evaluation (RTE), which monitors the effectiveness of interventions in the first stages of a response instead of the context (Jamal and Crisp, 2002; Krueger and Sagmeister, 2014; Polastro, 2014; Sandison, 2003). RTM came to the forefront in humanitarian domains during the COVID-19 pandemic when contextual indicators were changing rapidly from day to day,

FIGURE 2. Relationships in frequency between early warning (EW), projections, IPC/CH current status analysis and RTM based on (Lentz et al., 2020, 13)



- CSA Current-Status Assessment
- IPC Integrated Food Security Phase Classification (current-status assessment)
- CH Cadre Harmonisé (same protocol as IPC, used in West Africa)
- JIAF Joint Inter-Agency Framework
- RTM Real-Time Monitoring

requiring information on the latest situation to make immediate decisions (Leon et al., 2020; Tariq et al., 2020). According to Maxwell, “Real-time forecasting includes tracking drivers or short-term early warning indicators (factors that may increase the magnitude or severity of the crisis) as well as mitigating factors (food assistance, nutrition and health programs, etc.)” (Maxwell, Lentz, Wanjohi, et al., 2021, 9). RTM data can therefore feed into EWS to keep them current or to adjust program decisions. RTM may provide key information to supplement EWS to improve forecasting events or their impacts in the uncertainty of the drylands.

5.1.4 Relation to pastoral EWS

There are numerous community-based EWS, many of them specific to pastoral systems, but which function quite separately from formal EWS and serve different stakeholders. The formal humanitarian EWS structures are designed to support decisions and decision-makers within the humanitarian community rather than the affected communities themselves (Cadre Harmonisé, 2022; Lentz et al., 2020), and community-based EWS are rarely

As one frustrated National Drought Management Authority (NDMA) officer observed, “With early warnings, you are telling them what they already see. We are ambassadors for what they already know!” Those working on the ground know that there’s a drought right now (livestock are dying in numbers, and there’s no grass and water), so they don’t need information that the situation is dire.

(Mohamed and Scoones, 2023)

integrated into the higher-level formal humanitarian (Macherera and Chimbari, 2016; Sufri et al., 2020). The results of national and humanitarian EWS predict results at levels too aggregated to be of use to pastoralists where patterns of rainfall and pasture vary considerably over a small area (Scoones et al., 2023).⁸ As noted above, outputs from formal EWS are too infrequent and delayed for pastoralists who need to respond immediately to the indicators they observe (Maxwell, Lentz, Simmons, et al., 2021).

⁸ Interview with a national practitioner, August 7, 2023, and an academic, June 14, 2023

Some suggest that knowledge from community-based early warning systems should be integrated into the higher-level early warning systems, but most current community engagement in formal EWS is limited to physical measurements such as rainfall, or health and nutrition status monitoring (Macherera and Chimbari, 2016; Sufri et al., 2020). Sufri proposes that the integration of traditional/indigenous methods into the formal system could strengthen the formal EWS as they generally provide complementary types of information (Sufri et al., 2020). On the other hand, one interviewee stated she would be wary of integrating local pastoral and formal EWS as they serve different purposes and different audiences, feeling that it was more important to ensure communications between the two systems so that the humanitarian community understands the choices that pastoralists are making.⁹

One interviewee with extensive experience in pastoral EWS noted some of the real, practical difficulties in using information from local or “traditional” EWS in more formal analyses.¹⁰ He explained that the nature of information and indicators used in local EWS is different and not consistent from one period to the next because the importance of different indicators changes depending on the situation. The interviewee gave some colorful examples: certain birds appearing from the west or east, the look of the bark on a special type of tree, or certain behaviors, and situational examples such as, “If you see someone buying 100 [chapatis] it means they are getting ready to raid, because this is food that can keep for a week. Also, if you see a large number of [male] youths gathered in towns and sleeping and relaxing, then you know that they are gearing up for a big raiding trip. Collecting these clues has been integrated into the way of life of pastoralists. EWS is the fact of their life, they are dead without it.”¹¹ Therefore, while there are multiple well-organized pastoral early warning systems used by pastoralists, their knowledge is rarely integrated into higher-level formal EWS for many very practical reasons, but this means that the formal systems often lack access to this RTM of key localized indicators and how they are affecting pastoral populations (IFRC, 2012; Guye et al., 2022; Kalanda-Joshua et al., 2011; Macherera and Chimbari, 2016; Mohamed and Scoones, 2023; Nethononda

et al., 2012; Nyambura, 2003; Wasonga and Lotira Arasio, 2023).

In summary, the most developed humanitarian early warning systems focus on food insecurity crises and provide projections for decision-makers in the international humanitarian system. Real-time monitoring (RTM) can improve the accuracy and utility of EWS in the uncertainties associated with dryland regions. Considerations specific to pastoral systems are incorporated into parts of formal EWS, but the results are not well connected to local pastoral EWS, meaning that neither informs the other and pastoral populations are seldom served by formal EWS outputs. It may not be appropriate to try to merge local pastoral and formal EWS due to differences in timing, frequency of information needs, and the types of information needed. Nevertheless, better linkages to share appropriate aspects of the information emerging from each system may help with some types of analysis. Better information from pastoral EWS may challenge some humanitarian paradigm-driven assumptions or perceptions of the relationship between indicators related to herds and household well-being. Understanding how pastoralists are interpreting a given situation may also alert humanitarians to signs that a crisis is emerging that they might otherwise have missed, as well as help them to better understand how pastoralists are likely to react.

5.2 Anticipatory Action (AA)

Loosely defined, AA is an action triggered by a forecast of a potential shock, but taken *before* the shock happens to prevent or mitigate the impact of the shock (de la Poterie et al., 2023; FAO, 2021; Lentz et al., 2020; Levine et al., 2023; Scoones et al., 2023; Weingärtner et al., 2020; WFP, 2023). The most common definition of AA quoted by UN agencies is “acting ahead of predicted hazards to prevent or

“Anticipating crises, rather than simply responding to them, could revolutionize humanitarian action. But anticipating crises also requires much better forecasting and a willingness to act without knowing for certain that a crisis will materialize as forecasted.”
(Lentz et al., 2020, 4)

⁹ Interview with an academic, September 29, 2023.

¹⁰ Interview with an academic, May 31, 2023.

¹¹ *Ibid.*

reduce acute humanitarian impacts before they fully unfold” (UN, 2022). Although Levine et al. propose that AA can include actions taken by the affected population as well as the humanitarian community, this section of the report will focus primarily on those taken by the humanitarian community (Levine et al., 2023). Please consult the complementary desk study which covers humanitarian aspects from the pastoralists’ perspective (Hassan et al., 2024).

AA can be difficult to implement for numerous reasons. For example, the time between the alert and the shock may be relatively short (Hailey et al., 2018). An AA response is also based on a projection or forecast and therefore may never happen. Finally, it is not always clear how the shock will play out and therefore exactly what the most urgent needs will be.

“[Anticipatory action] requires pre-agreed plans that identify partners and activities, reliable early warning information, and pre-agreed financing, released predictably and rapidly when an agreed trigger-point is reached.”

(UN, 2022)

The effectiveness of AA depends heavily on accurate EWS that can forecast a shock with the longest-possible lead time and with as much confidence as possible. Lentz et al. observe that “a longer time-window of early warning will be less precise but will expand the set of feasible responses. Some of the feasible responses in the expanded set will require longer lead time but may also be lower cost” (Lentz et al., 2020, 16). If the EWS alert is not deemed reliable enough, donors may be reluctant to support a sufficiently large AA response (Easton-Calabria, 2023). Weather forecasts have the most developed, reliable forecasting models. Therefore, most examples of AA found in the literature were related to weather-related shocks such as floods, hurricanes, and droughts (Easton-Calabria, 2023; Poole et al., 2022; WFP, 2023). For example, all nine models Poole et al. found in a nonexhaustive search were related to climate shocks (Poole et al., 2022).

Much of the discussion on anticipatory action focuses on internal processes that can speed up response times. For example, AA plans promoted by the UN identify partners, negotiate agreements with them, and allocate a protected pool of funding for

AA activities (UN, 2022). World Food Programme’s (WFP) goal is to have 35 national AA plans with agreed forecast triggers, action plans, and finance mechanisms approved by 2023 (WFP, 2023). Levine et al. critique this process focus and encourages the humanitarian community to “shift the focus of attention towards the content of interventions.... Questions about what to do and how best to help people facing crisis encourage a focus of attention on the context, the challenges being faced, the structures and systems (markets, public services, etc.) that people depend on, and how to support them” (Levine et al., 2023, 42).

In a more wholistic approach, the Strengthening Pastoral Livelihoods in the African Greater Horn through Effective Anticipatory Action (PASSAGE) project launched in July 2023 is attempting to: identify indicators and triggers to capture the impact of drought and high temperatures in dryland areas; estimate their impacts on pastoral livelihoods; design AA activities for affected pastoral communities; and define ways to coordinate transboundary dynamics in AA (ICPALD, 2023). The project will use a codesign process, with a transdisciplinary team from multiple international and regional research institutes, government agencies, a business, a local NGO, and practitioners such as WFP and International Federation of Red Cross and Red Crescent Societies (IFRC) but will work with local pastoral populations. The project was launched in July 2023. As the University of Sussex will be engaging pastoral communities in this codesign process, it has the potential to challenge the current humanitarian paradigms of pastoralism (Sussex Sustainability Research Programme, 2023).

Reviewing the literature, we see three major approaches common to AA: 1) scenario-based planning; that is, to hypothetically plan out assistance ahead of time in accordance with one or more “most likely” scenarios based on an assessment of most likely climate shocks and how it is assumed they will affect the target population; 2) index-based insurance tied to livelihood activities such as crops or livestock; and 3) direct assistance, usually cash, through existing social protection programs that operate even when there is no crisis. Subsidized crop and livestock insurance and social protection programs in countries applicable to this report are usually managed by national governments, even if all or a portion of the funding comes from international donors like the World Bank. Therefore, this report section will focus on scenario-based

planning. We refer readers interested in interventions through insurance and social protection to the complementary desk study, which focuses on government responses to crises in dryland regions (Caravani et al., 2024).

5.2.1 Scenario-Based Approaches

Although weather forecasters are increasingly able to predict the general success of rainy seasons in a dryland region, these are still somewhat vague and aggregate data over vast areas. There is relatively high confidence in the four-month FEWS NET projections, but much less in the eight-month projections, particularly where there is high variability such as in the dryland regions. (FEWS NET, 2023b) Responding with appropriate assistance within four months is not easy; therefore, scenario planning can facilitate a faster response, especially in larger, process-heavy organizations such as WFP (WFP, 2023).

A “most likely” scenario uses current data and the histories of past crises in an area to make assumptions about the nature of potential shocks and the needs they will generate (Strong et al., 2020). In the dryland regions of Somalia, Ethiopia, and Kenya, the humanitarian community has extensive experience with enormous databases, so predicting climate shocks in these regions is relatively reliable. It is much more difficult to predict the impact of those shocks on people’s livelihoods and choices. With so much uncertainty, it is not likely that any scenario will play out as planned, nor are they truly expected to. As Lentz et al. note, “In rapidly changing situations, the best response may change as well. Strong awareness of response options and when each is the most appropriate is a key consideration” (Lentz et al., 2020, 16). Nevertheless, the exercise of scenario-building can be valuable and will at least put into place agreements and procedures that will be useful for multiple variations of a scenario, and AA funding will have been reserved.

“Combined with seasonality mapping and data on past emergency responses, aid actors can project what agricultural assets are at risk at any given time, identify appropriate early warning signs and build anticipatory actions fit for the local context.”

(FAO, 2021, 4)

Strong et al. explain that scenario analysis is “one means of addressing uncertainty about the future” (Strong et al., 2020, 5). They further note that focusing on a “most likely” scenario supports “creative thinking about plausible futures, rather than rather than attempting to accurately predict individual outcomes” (Ibid., 6). To do so, analysts must necessarily make assumptions to cover uncertainties in order to facilitate the planning process. In thinking through these scenarios, responders can focus on decisions about what needs are likely and the appropriate responses without the pressure of “politics and emotions” (Ibid., 14). As contexts are constantly changing, any scenario needs to be regularly updated, an effort that requires a constant stream of resources.

Risks associated with AA in the variable drylands in particular include the many factors that can change between the planning and shock happening, invalidating assumptions embedded in the plan, while keeping a plan current is rarely a priority for resources. And finally, AA plans are normally formed at the national level rather than by livelihood zone. Intense hot spots of need characteristic of the drylands may not be sufficient to trigger a national response (Levine et al., 2023).

Pastoralists in the uncertainty and variability of the drylands also think through multiple scenarios and act on them on a daily basis, while keeping open as many options as possible to remain flexible in their responses (Caravani et al., 2022; Scoones and Nori, 2023). They are planning for the next season and are well aware of their herd’s and their family members’ needs specific to each season or part of the season. They are very aware of what the effects of multiple potential shocks would be on the family’s ability to meet their needs, not just in the current season but also in the following seasons. Just as linking pastoral EWS with humanitarian EWS helps them to better inform each other, pastoralists’ own scenarios can help to inform AA scenarios to understand better how shocks will impact households and what their best options are for their own AA, and therefore what humanitarian AA will best suit them. The practical barriers to this integration are partly a question of timelines, and partly a return to the discussion on paradigms of predictability and uncertainty, control and flexibility.

5.2.2 No Regrets Programming

A major risk associated with AA for humanitarian donors and practitioners is the fact noted above that the predicted shock may never materialize and a crisis may never develop, potentially leading to loss of credibility and accusations that resources may have been squandered (Fabre, 2017). One strategy to counter this risk is “no regrets programming,” or programming that will benefit the population by reducing their vulnerability regardless of whether or not a crisis develops (Majid et al., 2022; Maxwell, Lentz, Simmons, et al., 2021; Maxwell and Majid, 2014; Siegel and Jorgensen, 2011). Rono-Bett reported that this approach has been mostly used by nonstate humanitarian actors in Kenya “because there have been ‘non-events’ in the past, government has become overcautious in committing resources on a no-regrets basis,” indicating that there is also an organizational as well as financial cost to responding when the shock does not happen, even if that response provided benefits to the affected population (Rono-Bett, 2018, 1).

One of the major lessons from the 2011 famine in Somalia was that waiting for a response to become a certainty could be disastrous, leading to the promotion of no-regrets programming (Majid et al., 2022). According to Majid et al., clear early warning alerts in 2016 coupled with strong leadership that did not want a repeat of 2011 stimulated a better response. Soon after this response, reports were noting that “no regrets responses had lost momentum” (Idris, 2018, 6). Indeed, during the 2021–2023 round of drought years, early warning was not nearly as clear, as the weather forecasts were conflicting, and the humanitarian community hesitated (Joint Alert, 2023; Majid et al., 2022).

Even with well-developed EWS, anticipatory action in the drylands regions of Africa will always be a higher-risk endeavor than in regions with more predictable weather patterns. Scenario-based planning can help to clear internal organizational barriers to a rapid response, but they may also blind responders to options outside of the planned scenarios and hide assumptions that may not prove accurate. AA that is well informed by a strong understanding of pastoral systems can widen perceived response options and counter inaccurate paradigm-driven assumptions. Regardless, clear, early alerts to predicted shocks increase the confidence of the humanitarian community and are more likely to foster a strong response. Although no-regrets programming reduces some of the risks

associated with AA, clearly it does not address all risks. As with other forms of AA, the will to respond based on prediction depends on the appetite for risk.

5.3 Humanitarian Response (HR)

While there are numerous standard humanitarian response options, significant adaptation is necessary to make most of them effective in pastoral dryland contexts. As one United States Agency for International Development (USAID) guide states, “Each pastoral group has its own diverse cultural, ecological, and economic conditions. Understanding these conditions is a prerequisite for adapting standardized technical approaches” (USAID, 2020, 14). This section of the report will not aim to create and evaluate a list of humanitarian responses reported in the literature to support dryland herding. Instead, this section will discuss dynamics specific to adapting humanitarian responses for pastoralists in this region, and efforts to capture and promote learning about pastoralism in drylands that might address some of the paradigm-driven programming disconnects discussed above.

“Little attention has been paid to exploring how the Northern Rizaygat’s lives and livelihoods have been affected by the conflict or to their livelihood goals and hopes for future peace and security. This lack of knowledge helps explain their relative exclusion from various forms of international action on Darfur.” (Young et al., 2009, 7)

5.3.1 Understanding Pastoral Systems is Critical to Successful Interventions.

Interviewees among local pastoral experts, government officials, and civil society organizations representing pastoralists were consistent in the message that pastoralists were regularly excluded from humanitarian assistance because humanitarians did not understand or appreciate the unique aspects of pastoral systems and their associated institutions. The literature highlights similar reasons for exclusion, but Young adds that there is sometimes a bias against pastoralists in places like Darfur where the pastoralists were seen as the aggressors in a conflict (Young et al., 2009). The USAID report, “Effective Engagement with Pastoralist Populations: Guidance for USAID Operating Units” confirms that, “While many humanitarian livestock programming beneficiaries are pastoralists, donors, including

USAID, that support both humanitarian and development programs have historically placed more focus on crop agriculture than on pastoralism” (USAID, 2020, 6). Self-evaluations of individual projects such as the Land Administration to Nurture Development (LAND) program in Ethiopia from 2013 to 2018 also note that “LAND’s initial design reflected an inadequate understanding of the social structures of pastoralist communities and limited knowledge on pastoral livestock and resource management systems.... Insufficient knowledge and

“Understanding the historical context, structures pastoralist governance institutions, and intricacies of pastoral systems are pivotal to effective engagement.”

(USAID, 2020, 22)

understanding of pastoral livelihoods complicated by community distrust of outsiders made it difficult to expedite interventions or keep to work plan schedules” (USAID, 2020, 13).

Most international humanitarian agencies work in multiple contexts and often multiple sectors (Fitzpatrick et al., 2021). Increasingly, these agencies have pastoral technical officers or may be informed by pastoral expert consultants. Pastoral specialist organizations are usually academic or research bodies like the Integrated Livestock Research Institute (ILRI), or they are civil society organizations that represent one or more pastoral groups within a country, like the National Confederation of Chadian Herders (CONORET) or the Pastoralist Development Network of Kenya (PDNK), but few of these implement humanitarian responses, leaving a gap between knowledge producers and implementers.

Strong efforts over the past 10 to 15 years have aimed to provide materials to build capacity and learning in agencies responding to the humanitarian needs of pastoralists. For example, the Food and Agriculture Organization of the United Nations (FAO) sponsors a “Pastoralist Knowledge Hub”

“NGOs didn’t even know if their communities were settled pastoralists or farmers; they just assumed they were farmers and always had been and designed their projects accordingly.”

(Interview with an academic, October 2, 2023)

that includes “knowledge, networks and partners” (<https://www.fao.org/pastoralist-knowledge-hub/en/>). The hub serves both as a repository for learning and resources related to pastoralism and a neutral platform for policy discussions. Pastoralism, Uncertainty and Resilience (PASTRES) is “a research programme that aims to learn from pastoralists about responding to uncertainty and resilience, with lessons for global challenges” (<https://pastres.org/>). The program publishes books and guides related to their research and offers an online course on “Pastoralism and Uncertainty” (<https://pastres.org/online-course/>). These and others aim to fill the gap in understanding pastoral systems as a foundational step to improving humanitarian assistance for pastoralists.

5.3.2 Guidelines to Support Pastoral Emergency Interventions

One of the better-known efforts to support livestock management in emergencies is the Livestock Emergency Guidelines and Standards (LEGS). The LEGS Handbook provides “minimum standards and guidelines for use in humanitarian emergencies that impact livestock” (de Jode and Watson, 2023, 14) and is organized along the lines of the Sphere guidelines. Sphere links up with the Humanitarian Standards Partnership. It is a laudable work, informed by past responses and hits all the cross-cutting themes of gender, community participation, human rights, animal welfare, climate impact, etc. It also includes some discussion of the wider needs of livestock specialists and encourages humanitarians to work through local providers, markets, animal health providers, etc. The handbook contains a lot of good, basic information for an agency that does not specialize in livestock to understand some basics about livestock needs and pastoral systems.

As the title suggests, the focus is on livestock and not necessarily pastoral systems and the institutions necessary for their functioning. The handbook is meant to be used in most emergency contexts where livestock-keeping is important to affected populations, so while migration and mobility are discussed and explained, they are not a central feature. Nor does it include guidance on the incorporation of social and cultural aspects of pastoralism that affect the use and management of livestock, as pointed out by USAID’s guidance (USAID, 2020).

The LEGS handbook, first published in 2009, divides interventions into six classifications, mostly following

the basic biological needs of livestock: feed, water, veterinary support, shelter, livestock offtake, and provision of livestock. The primary value of the LEGS manual is to think through the selection of an intervention, rather than the implementation of that intervention. The FAO “Livestock-Related Interventions During Emergencies: The ‘How-to-do-it Manual,’” published in 2014, complements the LEGS handbook, providing much more detail on how to implement the interventions suggested by the LEGS manual, including many best practices that would facilitate implementation in pastoralist communities (FAO, 2016).

The FAO manual expands the implementer’s view to a somewhat broader picture of livestock within a larger livelihood strategy, within a larger context, and with a larger range of emergencies. For example, they suggest searching for pre-emergency livelihood profiles, learning about local strategies to care for vulnerable members, land tenure issues, etc. The FAO manual also expands the LEGS very short-term focus to include considerations for longer-term impacts of interventions on livestock to be incorporated into the interventions and encouraging community participation in all stages, including the planning stages.

USAID has published its own guidance, “Effective Engagement with Pastoralist Populations: Guidance for USAID Operating Units” (USAID, 2020), which adds further detail on how to design responses for pastoral populations.

While such guides as the three listed above are invaluable to agencies that do not normally work with livestock in emergencies, they cannot replace the value of understanding the dynamics of a specific pastoral system within a specific project area. For example, Maxwell and Fitzpatrick describe the dynamics in the early stages of the 2011 Somali famine (Maxwell and Fitzpatrick, 2012). After the first failed harvest, grain reserves were low and normal agricultural labor opportunities were not available. Both pastoralists and agropastoralists immediately started to sell their livestock to buy grain. The traders normally purchased livestock in the producing areas and then drove the herds long distances “on the hoof” to large central markets like Garissa. But the severity of the drought had dried up the pasture between the producing areas and markets. Coupled with abnormally high fuel prices that made trucking livestock impractical, the traders stopped purchasing livestock, and prices

tumbled relative to grain. Without a return of rains and pasture, the livestock-grain terms of trade then remained low, pushing people to sell even more animals to purchase the same amount of grain, in a downward spiral. Without viable commercial offtake, LEGS’s only other recommended option is to pay owners for offtake for slaughter (de Jode and Watson, 2023). With a better understanding of the livestock system in southern Somalia, humanitarians might have supported the transportation of the livestock to the markets, either through fuel vouchers or providing feed at key points along the route to the markets. This alternative strategy might have preserved more livestock in the region to reduce the cost of restocking herds during recovery or reduced the severity of post-drought raids.

5.3.3 Humanitarian Assistance to Support Maternal and Childhood Nutrition in Pastoral Populations

Very few studies or reports identified by this review looked at the nutritional impact of humanitarian interventions on pastoralists as a target group, nor did they disaggregate pastoralists as a subgroup within a larger population. Most articles that do discuss nutrition and pastoralism are descriptive, or they focus on the impact of policy on livestock production, assuming a positive impact on nutrition, but without including anthropometric indicators.

We found only two literature reviews that dealt with the relationship between livestock/animal production (not necessarily pastoral) interventions and nutrition. Most interventions found by these reviews that did focus on pastoralists target the livestock, and few reviews delve into the at times complex relationship between herd productivity and maternal and child nutrition.

In 2007, Leroy and Frongillo conducted a review on animal production interventions and child undernutrition (Leroy and Frongillo, 2007). They identified 14 studies, half of which targeted fishing and poultry raising and none of which were with pastoral groups. The interventions generally had a positive impact on outcomes like income and diet, but only 4 of the 14 included nutrition outcome measures. Only one of these was an anthropometric measure - the others were individual nutrient measures and anemia. Much of the impact on diets was assumed to be through the effects of increased income rather than direct consumption of the yields from the increase in animal productivity.

In 2023, the University of Washington and FAO published a literature review on the impact of livestock interventions in Africa on maternal and child nutrition (Muema et al. 2023). They found 29 articles but could only use 4 of them for meta-analysis. Three of these 4 were poultry interventions and just 1 was milk-producing livestock; none of the 4 was with a pastoral population. From these 4, they concluded that “nutrition-sensitive livestock interventions showed a positive effect in increasing the consumption of ASFs [animal-sourced foods], leading to improved dietary diversity” (Ibid, 2). But the effect of this dietary change on nutritional status was mixed, likely because either the difference in nutrient intake was not meaningful, or because other drivers of malnutrition were not addressed.

Separately, Marshak et al. found that hygiene practices and management of livestock around water sources and the household were correlated with prevalence of malnutrition in agro-pastoralist communities in eastern Chad (Marshak et al., 2017). The authors list as one limitation of the study that the sampling scheme favored the agrarian population in larger settlements, which effectively excluded many of the smaller settled pastoralist communities and did not include transhumant pastoralist groups who passed through the region seasonally.

This general lack of evidence on the nutritional impact of humanitarian interventions specifically on pastoral populations reflects a general preference for working with more accessible populations and a lack of understanding of how to engage with pastoral systems and societies.

Overall, there is not enough evidence available to say conclusively what interventions promote better nutritional status in pastoral societies. The data are pretty clear that interventions to increase livestock productivity do increase income and dietary diversity where livestock productivity is low. It is less clear how this translates to changes in nutritional status.

An increasing amount of technical guidance is becoming available to humanitarians responding to crises in pastoral areas of the drylands. While these are valuable, they do not replace understanding that must come from contact and collaboration with the affected pastoral populations. We still find evidence, such as from the interviews for this desk study, that the humanitarian community is still heavily influenced by inaccurate paradigms that leave them largely unaware of pastoral needs.

6. POTENTIAL PATHS TOWARD MORE APPROPRIATE SUPPORT IN THE DRYLANDS

The results of the research for this desk study indicate that the way forward to better serve pastoral populations is less about finding better technical responses or fixing individual

misperceptions. Rather it is about thinking in a different way (taking up a new paradigm), getting the humanitarian way of thinking in line with the pastoral way of thinking, and then aligning systems

and programming approaches to support this way of thinking. These new paradigms will then shift perceptions, encouraging designs that are both more inclusive of pastoralists and more effective in meeting their needs.

Humanitarian systems are designed to try to predict the future with ever-more clarity in order to control it (“reduce the risk”) and when they are unable to do that, then to respond to needs that result as quickly as possible. If we make an analogy, humanitarians are like engineers. They want to know when the river will rise, and to control the flow of the river by building diversions and dams to prevent flooding without understanding how the flooding may benefit the flooded areas. Pastoralists see themselves more like someone in a boat on the flooding river; they are pushed along by the river of events, but can also paddle to maneuver within that rushing flow. They can only see what is right in front of them, so they must be nimble to dodge an approaching rock. What is the value in planning in detail what to do for the next six rocks when the flow of the river is likely to change before you get there? Better to have skills to dodge rocks as they come at you as you travel to your destination. And when possible, the boat can be maneuvered to a part of the river with fewer rocks where maybe the paddler can fish. Following this analogy, floods may provide benefits that give the boater different opportunities even while increasing some risks. According to Scoones, there are already some humanitarians, specifically the actors on the ground who are in contact with the pastoralists, who have learned to be flexible in their own work, but this then conflicts with the more inflexible systems and distant managers (Scoones, 2023b).

Below are some suggested avenues to improve support for pastoral livelihoods in the dryland regions of Africa by taking a pastoralist’s perspective and learning to think or act like a pastoralist.

6.1 Increase Data Granularity to Reveal the Important Differences in Opportunities and Risk within Dryland Regions.

Dryland regions are characterized by high spatial and temporal variability. Rainfall patterns can differ from one area to another and are seldom consistent from one year to the next (Catley et al., 2012). Plant life,

water tables, and soil types can vary considerably within a single relatively small area (Krätli et al., 2015). This diversity in conditions and natural resources creates a wide diversity in complementary livelihood activities and varying degrees of mobility (Little, 2010). Remote sensing data often do not accurately reflect the experience of climatic shocks on the ground, largely because they lack the appropriate granularity to detect variations at this small, but important, scale.¹² Pastoral systems are designed to maximize benefit from this variability and often experience weather patterns differently within a relatively small area, but aggregation of data over large zones can obscure the differences.

Surveys and assessments are resource intensive so to reduce the total sample size. They often use large sampling zones, aggregating all results within a zone. The status and needs of pastoralists may be obscured when aggregated with larger cultivating populations.

Data collection strategies that allow more granularity in highly variable contexts like the drylands can better inform EWS as to the state of pastoral populations and the resources they depend on, as well as guiding the design of responses. Greater granularity will require additional resources as surveys may require a larger overall sample, but the data will become much more useful to both humanitarian decision-makers and the affected population. One approach may be to use more qualitative data to accompany quantitative surveys to interpret how people in different livelihoods and subzones are feeling the effects of trends seen in the more aggregated data.

6.2 Focus on Livelihood and Population Groups Rather than Zones.

The current focus on livelihood zones, aggregating all livelihood groups in that zone, poses multiple difficulties. Pastoralists move their herds across multiple zones to make use of variations in pasture and rainfall, sometimes creating confusion as to which zone they should be counted in for assistance. Pastoralists and farmers coexist within the same ecological geographic areas with complementary activities used in different ways, with different vulnerabilities and coping strategies. Identities

¹² Interview with an academic, September 14, 2023.

linked to livelihood specializations can create political sensitivities over unintentional exclusion from assistance, or claims of exclusion (Brottem and McDonnell, 2020; Krätli et al., 2015; Young et al., 2009). The current EWS system of using geographic zones is therefore problematic because it doesn't represent these differing populations' needs. Using livelihood specializations rather than zones as units of analysis and monitoring need status could address some of these issues.

Shifting to a population focus requires a way to distinguish among populations, which is not always clear-cut and can become political. Strategies can be devised by working with those populations to determine how they distinguish themselves and how to identify them on a larger scale to guide sampling strategies for surveys. The IPC was originally created to show populations the basis on which need is allocated to allay accusations of favoritism. A similar strategy could be used for population-based targeting.

6.3 Embrace Uncertainty with Responsive Flexibility Rather than Prediction and Control.

This report contrasted the paradigm of seeing variability and uncertainty as risks to be identified and controlled with the paradigm of monitoring for signs while keeping livelihood strategies flexible to make use of opportunities as they arise while avoiding hazards as they arise.

Scoones et al. also contrast two perspectives that derive from the described paradigms. One is an "individual, market-based approach, which relies on scientific prediction forecasting and early warning systems to define interventions...a controlling form of politics where future risks can be anticipated and controlled. The second perspective is a more collective, redistributive approach, rooted in local networks, relationships and moral economies, and drawing on grounded knowledges and experiences of volatility and variability. Rather than being focused on the management of risk—where futures are calculable and predictable—this approach takes uncertainty seriously.... While not mutually exclusive, these two perspectives do highlight very different understandings of risk and uncertainty and so a different politics of anticipation. This, we argue, has major consequences for the way development

support is geared and how livestock insurance interventions are viewed" (Scoones et al., 2023, 1).

Response designs that emphasize responsive flexibility and support more choice for pastoralists give them the ability to respond to the uncertainties in their unique environments with a wide range of complementary activities. This strategy will allow pastoralists to use their expertise and understanding of the systems in which they live to develop their own adaptations (and resilience strategies) to shocks and potential hazards.

6.4 Coproduction and Co-learning As a Path for Valuing Indigenous Knowledge and Thinking Like a Pastoralist

The arguments for increased engagement of local pastoralists in AA and humanitarian response as well as EWS are very well documented in the general localization literature and need not be restated here in their entirety (Fitzpatrick et al., 2023; Robillard et al., 2021). Contracting local implementors while decision-makers move farther from affected populations is a negative result of poorly implemented localization strategies. In that

"The biggest problem with humanitarian responses is that the humanitarians have little understanding of the situation for pastoralists. They need to reflect with the pastoralists. They need to better understand and consider how do the pastoralists themselves strategize, normally and in response to risks."

(Interview with a national actor, September 6, 2023)

distant environment, there are few opportunities for challenging a current paradigm or building a new one.

Coproduction engaging both humanitarian practitioners and affected populations has emerged as an effective response to complex or "wicked" problems, to help make sense of topics within that complexity rather than making assumptions that attempt to simplify away that complexity. This approach is promoted by localization advocates to prevent the risks of remote management through empowering (not contracting) the

affected population to inform the response design. Coproduction efforts are “context-driven, problem-focused and require the engagement of multiple disciplines” as well as multiple stakeholders (Norström et al., 2020, 183). This has led to an appreciation of the involvement of actors outside of the academic and humanitarian professions, such as private-sector actors or pastoralists who are seen as experts in their professions (Norström et al., 2020). This is in line with the USAID guidance document for effective engagement of pastoralist populations, which highlights some keys to successful programming with pastoralists in a set of case studies:

The use of traditional, indigenous knowledge and science of pastoralists was critical to the development of effective tools that enabled better information sharing and data collection that helped pastoralists manage disaster risks. (USAID, 2020, 17)

Based on experience, it is clear that talking directly with pastoralist groups and learning about their traditional knowledge can help achieve various development outcomes. (USAID, 2020, 22)

Taking a coproduction approach to designing and implementing humanitarian interventions may be a way to accelerate this learning process, while simultaneously ensuring the design of interventions is appropriate. Such an approach would empower the affected populations to apply their deep understanding of the physical environment, local institutions, and social structures. At the same time, they could potentially benefit from technical expertise among the humanitarians that will open up new options, but in a way that is well adapted to their systems.

Using a coproduction approach to designing an intervention may require adaptations to typical funding agreements because the priority needs and responses cannot be decided prior to proposal submission. For example, small grants, or initial phases to larger grants, can be specifically designated for coproduction or codesign activities, or conditional funding that depends on creating the design with the populations as a first phase.

Coproduction is not a panacea for facilitating a paradigm shift, and care must be taken to ensure that negative or exploitative elements in a society are not exacerbated, but evidence indicates it is

an effective approach to adapting humanitarian interventions in the pastoral context (Fitzpatrick et al., 2021).

6.5 Thinking Like a Pastoralist

Humanitarian activities are often broken out into distinct stages that have become siloed, with the impression that they happen neatly one after the other: EWS, AA, early action (EA), humanitarian response. Development activities are often considered separate and may or may not include mitigation and preparedness activities. In reality, most INGOs are now multimandate, working long term in an area, and responding across the spectrum from urgent humanitarian crises to long-term development, often simultaneously with the same population (Fitzpatrick et al., 2021). Nevertheless, organizational and funding structures often make a seamless approach difficult.

Pastoralists do not think in terms of EWS, EA/AA, and response as differentiated activities or as sequential stages related to a crisis (Catley et al., 2012; Krätli et al., 2015; Scoones, 2023a). Even in interviews with pastoral experts and government service providers, the interviewees for this study had difficulty in confining their remarks to just one of these classifications of activities. Pastoralists are constantly monitoring the uncertain evolution of conditions in their vicinity, and drawing on news from other regions, considering their options to maximize both immediate and long-term benefits to their livelihoods and families, while avoiding potential hazards on the horizon. They may be simultaneously recovering from previous shocks (most of which are not covariate shocks), looking for signs of future risks, and adapting strategies in view of a potential future shock to best position their herd for when the shock might hit, all while experiencing a shock (Scoones, 2023a).

Farmers in the drylands have similar experiences, but their livelihood shocks and possible reactions/adaptations are more limited and defined once they plant crops. Humanitarian systems and procedures are organized according to the different humanitarian activities (EWS, AA, response), making it difficult to think and act in ways that conform to a pastoralist’s own approach to the opportunities and risks he faces. The more clearly we see how these structures affect our strategies, interactions, and perceptions of pastoralists (and other affected populations), the more clearly we will be able to adjust those

structures so they do not drive our interactions. Instead, our interactions with and understanding of pastoralism can guide our structures and strategies as we build a new paradigm.

6.6 In Conclusion

Throughout this report, both the literature and the interviews presented the same observation that effective early warning, anticipatory action, and humanitarian response for the unique context and livelihoods in the drylands of Africa require a detailed knowledge of the local system. This includes recognizing, questioning, and setting aside previous assumptions and mental frameworks, and being open to new ways of approaching uncertainty and risk. Lacking many years to train each humanitarian passing through the region, it only makes sense to enlist the pastoralists themselves to play the role of expert in designing the systems and responses that will best serve them, while informing external systems like formal EWS. Through abandoning our roles as experts and taking on a coproduction strategy with the pastoralist populations we serve, we will simultaneously improve the humanitarian community's effectiveness while also finding ourselves slipping naturally into new, better-fitting paradigms.

This desk study reviews how the international humanitarian community interacts with pastoralists. Two other desk studies complement this report. One study, by Rahma Hassan, takes the perspective of the pastoralists themselves and how they conduct their own versions of early warning and response (Hassan et al, 2024) . The other reviews how governments approach support for their pastoral populations through their own EWS, AA, and humanitarian responses (Caravani et al., 2024). The results of these three companion desk studies will be combined into a single [synthesis document](#) that will allow a more wholistic view of EWS, AA, and humanitarian response in the drylands of Africa.

ANNEX 1: LIVESTOCK REARING AND CULTIVATION: DIFFERENT RISKS AND OPPORTUNITIES

Livestock rearing and cultivation have long been complementary livelihood activities in the arid and semi-arid regions of Africa. Pastoralists are typically heavily dependent on purchasing or trading to get grains and other plant-based foods for most of their energy intake. Cultivators, even those with small herds, are often happy to trade agricultural produce or other goods with pastoralists to gain access to animal-source foods like milk and meat. With these overlaps and other synergies, working within the same overall system, it would be understandable to assume there are more similarities in the strategies than there are. Although pastoral herding specialists very often also cultivate grains, and cultivation specialists often also keep livestock, the two groups use their activities and assets in very different ways to achieve different objectives (Fitzpatrick and Young, 2023).

The table below provides a very simplistic comparison of the two livelihood specializations, with just some of the more obvious differences between herding and cultivating specializations. These and myriad other differences require adaptations to nearly every aspect of humanitarian assistance, from timing, to targeting, to service delivery. The type, timing, and periodicity of both inputs and benefits derived from herds are different from cultivation. Therefore, the shocks that disturb their livelihoods will have different impacts.

Of course, the two specializations do not form as clear a dichotomy as presented here; there are numerous variations and gradations of specialization as well as diversification into other rural activities such as irrigated vegetable cultivation, technology, transportation, and trade. Increasingly, pastoral herds migrate while most family members remain stationary (semisedentary pastoralism), separating the sedentary members from many of the

benefits and risks faced by the herd, but providing opportunities for increased grain cultivation and access to fixed-point services like schools and health centers (Krätli et al., 2015).¹³ As many herds become smaller, a common strategy is to join herds to migrate together under shared supervision, or they migrate over much shorter distances. This evolution is changing social norms within pastoral households and among nuclear households within extended family groups, often to the detriment of the poor who are more dependent on social norms of sharing. In a crisis, the needs of the herd compete with the needs of the household members, and they may not be located in the same geographic location. Therefore, even “experts” in pastoralism must constantly be updating their understanding of pastoral systems.

¹³ Interview with an academic, September 4, 2023.

| | CULTIVATING SPECIALISTS IN LOW VARIABLE CLIMATES | HERDING SPECIALISTS IN HIGHLY VARIABLE CLIMATES |
|---|---|---|
| PRIMARY SOURCE OF INCOME | Cultivation is the primary source of food and income. Livestock used as insurance or additional income to protect reserves or promote productivity of crops. | Livestock are the primary source of food and income. Cultivation is a supplemental activity to provide food for the household, feed for livestock, reducing expenses and therefore the need to sell livestock beyond strategic sales. |
| SOURCE OF IDENTITY | Identity partly through blood lines, but very often tied to land allocation and the chief of a fixed village, reinforced by shared social safety nets among a rather fixed population. Farmers who stop farming don't consider themselves farmers. | Identity tied to blood lines, reinforced through livestock sharing and caring arrangements, as well as shared social safety nets. Pastoralists who cease to own or manage a herd continue to consider themselves pastoralists. |
| UNIT FOR TARGETING AID | Nuclear family plus maybe first-degree relatives. Collaboration among possibly unrelated neighbors. | Extended family networks. Even small herds may be managed jointly. |
| RHYTHMS OF LABOR, INVESTMENT, INCOME, AND FOOD INSECURITY | Clear periods of intense labor followed by periods when other activities can be pursued. Several months of intense labor and large inputs with no returns, then a single sudden, large return during harvest. Cycles of food insecurity, malnutrition align with crop cycles. | Herds tended throughout the year. Small livestock may be sold throughout the year to meet daily needs and larger livestock sold at strategic moments to pay for investments or large expenses. Cycles of seasonal food insecurity are less pronounced but usually in late dry season. |
| LAND USE AND TENURE | Multiple fields within a limited area to reduce risk of total loss from a single shock (insects, flooding, etc.). Ownership/long-term allocation of land for cultivation, same land each year, often able to be inherited or sold. | Mobility to access multiple different pastures, reduces risk to low rainfall, need water sources and pasture in one area. Use of large spaces (pasture and water sources) that may change from year to year. Sole use or ownership is not helpful. |
| MOBILITY | Stationary homestead from which fields are accessed, with possible temporary lodging in fields to protect crops at key points of their development. | Multiple mobility patterns. Nomadic, no permanent homestead. Transhumant between permanent/semipermanent residence and seasonal encampments. Semisedentary: herd migrates with men and others remain at permanent homestead. |
| TIMELINES | After a crisis, a harvest may easily be as large as harvests prior to the crisis, and a couple of good seasons may refill empty grain stores. | The loss of a significant portion of a herd can take years to recover, if ever, depending on the type of livestock and the scale of the losses. |
| VARIABILITY AS RISK OR OPPORTUNITY | Variability is a risk. Most productive where rainfall is most consistent spatially and temporally from year to year. | Variability (within limits) is an opportunity. Most productive where rainfall is variable, allowing pasture to mature at different rates, so that herds can make use one after the other as they are optimal for nutrition. |

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