

A review of community-centred early warning early action systems



**This report was commissioned by
Concern Worldwide (UK) and written
by Margie Buchanan-Smith with
support from Priscilla McCelvey.**

May 2018.

Cover image: Fatuma and husband
Abdulahi and their sons. Kenya 2017.
Peter Caton/Concern Worldwide

Contents

1. Introduction	4
2. Making the case for community-centred Early Warning Early Action (EWEA).....	5
3. Policy initiatives and frameworks promoting community-centred EWEA.....	7
3.1. At international level	7
3.2. At national level.....	7
4. A brief overview of community-centred EWEA systems in practice	8
5. Promoting two-way information flows in early warning, and supporting communities to drive their own early action based on early warning received	9
6. Ensuring local communities' perspectives and priorities inform the national and international response and trigger early action	12
7. Institutionalising community-centred EWEA within national governments	14
7.1. Introduction	14
7.2. In stronger and stable states	14
7.3. In weaker and fragile states	16
8. Institutionalising community-centred EWEA within the international aid system	17
9. Conclusions	18
10. Community-centred EWEA: an agenda for action	19
Acronyms	20
References.....	21
Annex 1: List of people interviewed	22

1. Introduction

This paper explores how early warning early action (EWEA) systems can better meet the needs of crisis-affected people. Specifically, how can the dissemination of EW information support communities to drive their own early action, and how can the perspectives and priorities identified by crisis-affected people be fed into, and inform wider EWEA structures operating at scale, and thus ensure that early action is taken¹. The first aspect, supporting communities to drive their own early action, could be called ‘community-based’, or ‘community-led’ EWEA. However, to capture both aspects, at community/local level and at national and international levels, we use the term ‘community-centred’ EWEA in this paper. The underlying assumptions are (1) that the improved flow of EW information to local communities will strengthen their ability to take early action to protect their livelihoods and lives, and (2) that EWEA systems operating at scale, that capture the experience and perspectives of local communities, will deliver more appropriate and effective early responses, in line with the priorities of affected people.

Community-centred early warning systems (EWS) have a long history, at least dating back to the 1980s when the experience of the Sahelian drought and famine triggered major investment in early warning at all levels from local to national to international. Over the last three decades, there have been a number of community-centred EW initiatives launched in different countries in Africa, usually at local level and occasionally (but not always) connected to the national level. There has also been a cyclical interest in ensuring that early warning results in early action, each time triggered by the high profile and costly failure to launch a timely response despite early warning of impending food crisis: across the Sahel in the early 1990s, after the 2011 food crises in the Horn of Africa and famine in Somalia, and most recently after the El Niño induced drought in 2015/2016². There is a large and rich literature, published and unpublished, on different aspects of EWEA.

The paper looks specifically at EWEA systems for slow-onset food crises, usually triggered by drought and / or by conflict. A key issue it explores is how EWEA can simultaneously be community-centred and operate effectively at scale. This raises fundamental questions about the ways of institutionalising community-centred EWEA at national level, and also within the international aid system.

The paper is a review of some of the more recent and insightful experiences of developing and promoting community-centred EWEA in Africa, especially in the Horn of Africa and the Sahel. It has been commissioned by Concern Worldwide for learning and advocacy purposes. Its intended readership ranges from donor organisations, to implementing national and international NGOs, to national governments of countries regularly affected by slow-onset food crises. The findings will be fed into ongoing policy and programming debates and discussions on promoting EWEA.

The work underpinning this paper was based, first, on a rapid review of the literature on EWEA, and on interviews with researchers and resource people with overview knowledge and expertise on EWEA. Through this first phase, examples of community-centred EWEA systems were identified at local and at national levels. This triggered a further round of interviews with individuals with first-hand experience of some of those systems. See Annex 1 for a list of interviewees and the EWEA systems explored. Due to limited time and resources, the paper is not a comprehensive review of community-centred EWEA, nor does it provide rigorous and objective evaluation of the EWEA systems cited. Instead, it identifies key factors that appear to determine the success or failure of community-centred EWEA, in the short and longer-term, based on a combination of the literature reviewed and key informant interviews. Some of the examples and experiences that the paper draws upon are presented in the text in illustrative boxes.

The paper begins by making the case for community-centred EWEA (section 2). It briefly reviews current policy initiatives and frameworks relevant to community-centred EWEA, at international and national levels (section 3). Section 4 provides a short overview of community-centred EWEA in practice, and proposes a typology of contexts. Sections 5 and 6 focus on the characteristics of community-centred EWEA, and capture the learning from different examples in the Horn and across the Sahel. The remainder of the paper considers what it means to institutionalise community-centred EWEA, first within national government

1. By ‘early action’, we mean action to support and protect livelihoods, with the aim of preventing escalation into an emergency (Bailey, 2013)

2. See, for example, Buchanan-Smith and Davies (1995), Bailey (2013), Maxwell and Majid (2016), Ibrahim and Kruczkiewicz (2016)

(section 7). This section makes a distinction between strong and fragile states. Section 8 considers institutionalisation within the international aid system. The main learnings from this review and their implications are captured in the conclusions in section 9. Section 10 proposes a number of actions for donors, governments and implementing agencies to support the delivery of community-centred EWEA.

2. Making the case for community-centred Early Warning Early Action (EWEA)

The 2013 Chatham House report on linking early warning to early action makes four recommendations for what it calls 'community-based' EWEA, to empower vulnerable communities by strengthening their capacity to act, and to ensure public policies support the response strategies of vulnerable groups:

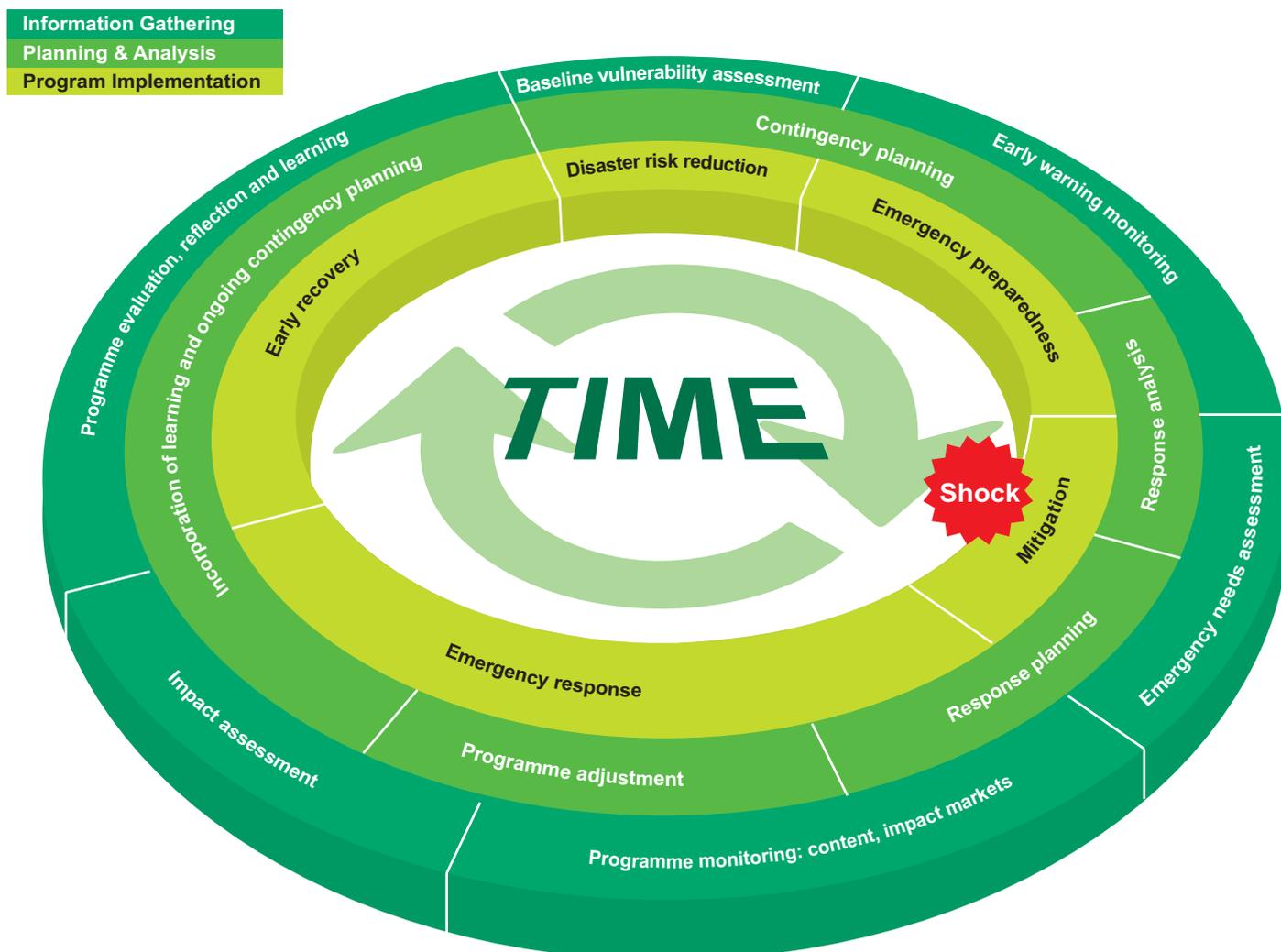
1. "Early warning providers should develop approaches to incorporate qualitative, informal early warnings from communities and networks into official analyses and decision-making."
2. "Donors, agencies and national government should invest in community-based early warning systems and capacity-building, particularly in national contexts of low government capacity or where communities are politically marginalised."
3. "National and local governments should create an enabling environment for community-based early action by ensuring that policies and regulations support the response strategies of vulnerable groups."
4. "National governments, early warning providers and agencies should develop innovative approaches to increase community access to official early warning information and tailor it to their specific needs."
(Bailey, 2013: xi)

Drawing on these recommendations this paper considers a community-centred EWEA system as:

1. Promoting a two-way flow of EW information, from community to national level, and from national to community level.
2. Supporting and empowering communities to drive their own early action, based on early warning received.
3. Ensuring the perspectives and priorities identified by local communities, as well as an understanding of the particular vulnerabilities and capacities existing at community-level, can be fed into, and inform the national and international response, triggering early action.

Models of EWEA abound in the literature. This paper uses Majid and Maxwell's (2010) model that shows the links between information, programme planning and implementation. See Figure 1. This model is a reminder that early warning and early action are part of a much larger programme cycle that may include Disaster Risk Reduction (DRR), evaluation and learning. It also demonstrates how early warning should be based on a solid understanding of risk, hazard and vulnerability, and shows different phases of response.

Figure 1:
The Programme Cycle: Linking Information, Programme Planning and Implementation



Source: Maxwell and Majid, 2010

Macherera and Chimbari (2016) describe some of the characteristics of community based EWS at the local level: the involvement of existing organisational structures and mechanisms at community level; participatory analysis, for example of hazards, vulnerability, DRR; community mobilisation and volunteerism to implement DRR measures; and the development of monitoring systems, communication and dissemination plans at community level. This paper goes a step further in reviewing how community perspectives and priorities can inform and guide EWEA systems at the national and international levels.

“Early warning should be based on a solid understanding of risk, hazard and vulnerability.”

3. Policy initiatives and frameworks promoting community-centred EWEA

3.1 At international level

The 2015 *Sendai Framework for Disaster Risk Reduction* promotes an approach conducive to community-centred EWEA. For example, it encourages a people-centred preventative approach to disaster risk; inclusive, accessible and participatory DRR practice; and recognizes the value of traditional, indigenous and local knowledge in disaster risk assessment and in early warning. While it promotes multi-hazard early warning, however, it has been criticised for being 'conflict-blind' because conflict was negotiated out of the Framework (Peters, 2017). In the last decade there has been considerable investment in DRR at community level, often led by NGOs.

Since 2010/11 the *resilience paradigm* has dominated thinking and aid programming in contexts of recurrent disasters and/ or protracted humanitarian crises. It is intended to promote a more systemic approach to disasters and to break down the sharp distinctions between humanitarian and development programming and funding. In practice much resilience programming has focused at community level.

The *Agenda for Humanity* emerging from the World Humanitarian Summit (WHS) called for a new paradigm based on: a) putting affected people at the centre of humanitarian response; b) shifting the focus from responding to anticipating and mitigating crises through improved risk analysis and early action; and c) bringing humanitarian and development actors

together around collective outcomes that reduce need, risk and vulnerability³. The notion of collective outcomes is central to the *New Way of Working*, which complements the Agenda for Humanity, and offers a way for humanitarian, development and other actors to align efforts in contexts where short-term humanitarian action and medium- to long-term development programming are simultaneously required. Each of these strategies helps to lay the foundations for more community-centred EWEA.

3.2 At national level

At national level there has been a trend towards more decentralised and devolved governance in a number of African countries over the last couple of decades, including Kenya, Ethiopia, Uganda, Zimbabwe, South Africa and Sudan (Brosio, 2000). In theory, moving the centre of gravity of governance from the national level to local level is expected to foster democracy and more participatory decision-making, informed by local information flows. These conditions should be conducive to more community-centred EWEA, acting in the interests of crisis-affected communities. But there are also risks, such as unaccountable local elites capturing local government and 'decentralised corruption' (ibid).

These trends and initiatives at international and national levels appear to offer a context conducive to community-centred EWEA. The extent to which this has been realised in practice is explored in this paper.

4. A brief overview of community-centred EWEA systems in practice

Considering there have been efforts to establish community-centred EWEA since the 1980s, the record in 2018 suggests there are many challenges to be overcome. Many community-centred EWS at sub-national level have come and gone. The experience in Darfur, Sudan, over the last three decades illustrates this well. See Box 1 which shows half a dozen different projects that have played an EW function (some more closely linked to early action than others) since the second half of the 1980s. While on the one hand a community-centred EWS has been operating more years than not, there has been a lack of continuity and sustainability as projects came to an end and new ones started.

This demonstrates:

1. The vulnerability of EWS dependent on short-term donor funding.
2. The challenges of operating in a volatile context affected by conflict such as Darfur.
3. The vulnerability of an EWS that is not embedded in a national system. Although each system was operating at geographic scale – the greater Darfur region is the size of France – none of the systems in Box 1 were integrated into the national system. However, this would not necessarily have improved the prospects of sustainability and effectiveness.

Box 1: A brief history of community-centred EWS in Darfur, Sudan

During the 1984/85 famine, Save the Children set up a monitoring and information system, more to guide targeting of relief supplies than as an EWS. This was wound down in 1986 when donor funds were withdrawn.

In the second half of the 1980s, the Agricultural Planning Unit (APU) of Darfur Regional Government set up a new monitoring system, supported with UK government aid assistance. The Sudanese Red Crescent Society ran a Drought Monitoring Programme across North Darfur and Oxfam launched a nutrition surveillance project. All of this information fed into the APU's two-monthly 'Food and Agriculture Bulletin', effectively the EWS for the region. With the withdrawal of donor funding from the APU in 1990 the system crumbled.

By 1993, Save the Children (UK) had set up a new state-level EWS, the 'Darfur Food Information System' (DFIS). This ran for over ten years, until the end of 2004 when Save the Children (UK) withdrew from Darfur following a number of fatal security incidents in the early phase of the Darfur conflict. DFIS came to an abrupt end.

Between 2010 and 2016, the national NGO, the Darfur Development and Reconstruction Agency (DDRA), established a 'Market Monitoring and Trade Analysis' (MMTA) project across Darfur in collaboration with the Feinstein International Center of Tufts University. At its peak, the project was implemented by over 40 community-based organisations (CBOs) and NGOs in Darfur. Although its overall goal was to deepen analysis and understanding of the shifting patterns of trade and markets in Darfur on an on-going basis, it ended up fulfilling an important early warning function. The project ended when the donor funding came to an end.

Sources: Buchanan-Smith and Davies (1995); Barrows and Buchanan-Smith (2017)

In a number of countries in Africa there appears to have been a growing commitment that national EWS run by government departments build upon local information, for example the 'Système d'Alerte Précoce' (SAP) in Niger, the national EWS in Ethiopia, and the national EWS in Kenya. The extent to which this means they are actually 'community-centred' varies, however, as discussed below.

How community-centred EWEA systems are set up and operate, and especially their sustainability prospects are very much determined by the political and governance context in which they sit. Table 1 presents a simple typology of contexts, from a strong stable state to a fragile or weak state, giving examples of community-centred EWEA systems discussed in this paper that fall in each category.

Table 1: Typology for reviewing community-centred EWEA systems

	Strong stable state	Fragile or weak state
EWEA for slow onset food crises	<ul style="list-style-type: none"> • National EWS in Ethiopia • National EWS in Kenya 	<ul style="list-style-type: none"> • Local level EWEA systems in Somalia

5. Promoting two-way information flows in early warning, and supporting communities to drive their own early action based on early warning received

One of the characteristics of community-centred EWEA, as described in section 2, is *promoting a two-way flow of EW information*, from community to national level, and from national to community level. The climate information community appears to have made most progress in this respect, usually as part of climate adaptation initiatives at community level. The rationale is that communities can be strengthened and empowered to act if local knowledge and practices are integrated with scientific forecasts, and that this helps ensure that climate information is 'user-useful'. One way of being 'user-useful' is to communicate scientific forecasts as probabilistic rather than deterministic; this contributes to their perceived accuracy at local level, and the likelihood they will be accepted⁴ (Kniveton et al, 2014).

There are now a number of initiatives to bring scientific meteorological seasonal forecasts to rural communities which have their own well-honed and traditional ways of forecasting the weather, especially rainfall in arid and semi-arid areas. Ensuring they have seasonal forecasts to complement their own observations, the overall objective is to feed into decision-making at

community level so they can take their own early action, thus fulfilling the second characteristic of community-centred EWEA, *supporting and empowering communities to drive their own early action* based on the early warning received.

Box 2 describes CARE's Participatory Scenario Planning for seasonal climate forecasts (PSP) approach, developed by the Adaptation Learning Programme (ALP), which has been implemented at scale by a range of organisations and programmes in Ethiopia, Kenya, Niger, Ghana, Malawi and several other countries. ALP had the aim of increasing the capacity of vulnerable households to adapt to climate change and variability. Within this context ALP developed several climate services approaches to ensure that the information, as well as uncertainties inherent in scientific seasonal forecasts, could support decision-making by communities towards adaptation, risk management and climate resilient livelihoods. The PSP approach is one way in which communities, sectoral actors and climate information providers are enabled to collectively interpret probabilistic forecasts and to take early action.

4. Kniveton et al (2014), quoting other sources, explain the importance of communicating the inherent uncertainty in weather and climate information to maintain credibility with users. This is best done by communicating forecasts in probabilistic rather than deterministic terms. Deterministic information can set the forecast up to fail if a lower probability event happens. However, lay users may need help in interpreting probabilistic forecasts.

Box 2: Climate information: linking seasonal forecasts with local knowledge and action. CARE's Adaptation Learning Program (ALP)

Seasonal forecasts from the respective meteorological service are made available to pastoralist communities and other local actors at a seasonal multi-stakeholder meeting. At the meeting, this is combined with traditional early warning and adaptation mechanisms based on observations of the weather and other environmental indicators such as the behavior of trees, birds and insects. Seasonal forecasts and probabilities are collectively discussed and interpreted at local government level into what it means for local livelihoods in terms of risks, opportunities and impacts. This is done through a PSP process whereby three different scenarios are identified as well as response options which are developed into 'advisories'. The advisories are communicated through channels such as religious leaders, the media and government ministries to reach the wider community.

In advance of the El Niño drought in 2015, the PSP process in the Somali region of Ethiopia resulted in agro-pastoralists being advised and encouraged to sell their animals ahead of the drought and to save fodder for the lean season. Households who followed these response options, choosing the timing to sell their animals and conserving fodder as hay, appeared to manage the drought better than those who did not. CARE identifies key factors of success in the PSPs in Ethiopia as: i) developing new knowledge for communities and individuals, and communicating the element of uncertainty and probability for decision-making; ii) stakeholder relationships, for example community members having a direct channel to technical personnel and producers of climate forecasts; iii) bringing marginalised community members such as women and youth into the decision making process.

Some of the key learnings from the PSP experience in Kenya include: (i) the importance of two-way communication between the meteorological services and local communities instead of top-down dissemination; (ii) broad stakeholder inclusion and the highly participatory nature of the PSP process; (iii) continuous re-design and adaptation to overcome social barriers as they arise; (iv) ensuring the advisories to local communities avoid broad statements and are sufficiently local-specific.

Sources: careclimatechange.org/publications/alp-ethiopia-climate-information-services-country-report/; C4 EcoSolutions (2017a); C4 EcoSolutions (2017b); key informant interview

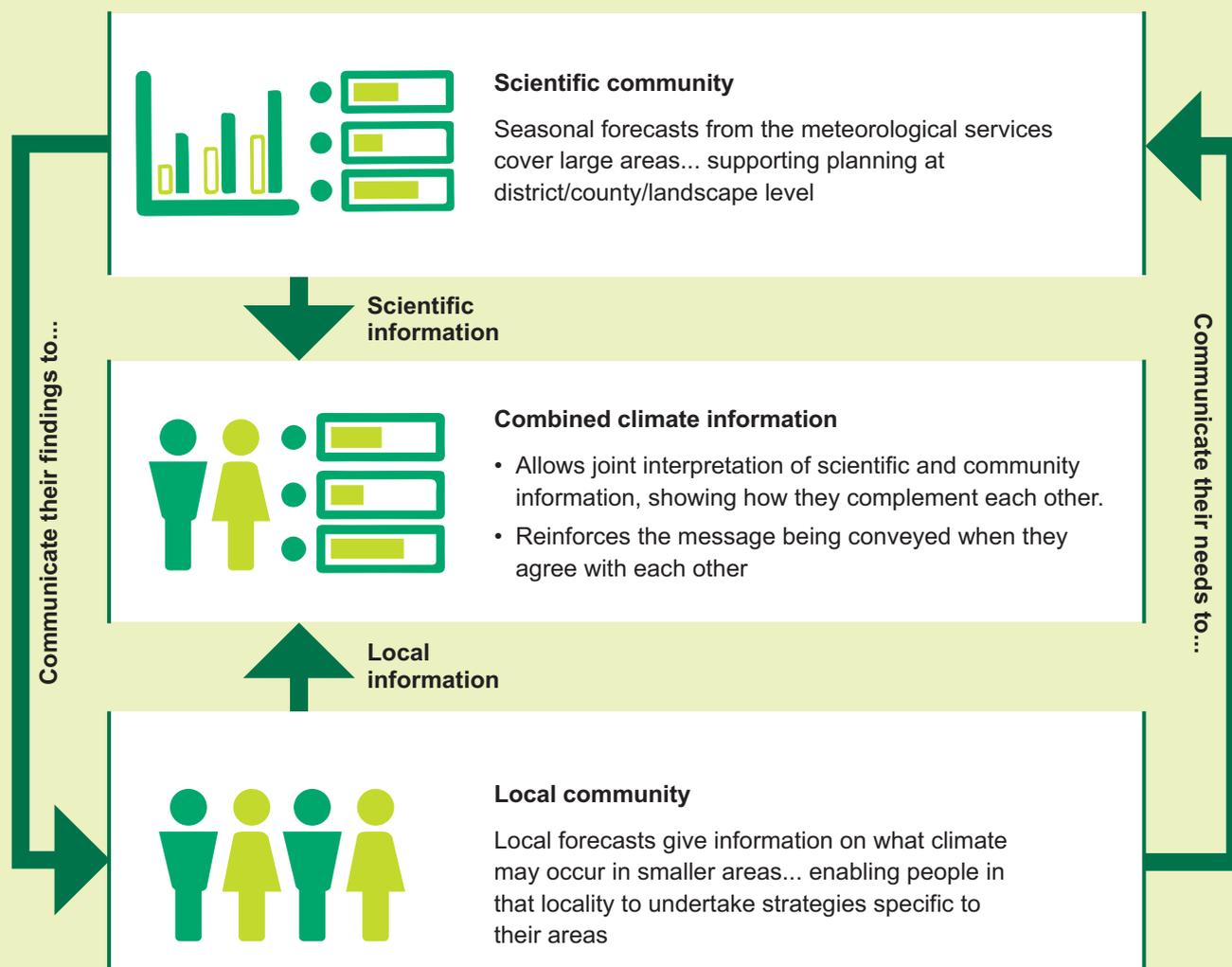
Participatory Scenario Planning for Climate Forecasts at Scale in Africa: careclimatechange.org/wp-content/uploads/2017/07/PSP-ALP-Brief-2017.pdf; CARE International, May 2017

In a number of African countries the respective national meteorological service is trying to make their climate information available to local communities, usually through radio (Ambani and Percy, 2014). For this to be regarded as credible and therefore used by local communities requires both continuity and reliability. But this can be hard to achieve through a short-term projectised approach. In the Sila Region of Chad, for example, Concern had started to make seasonal forecast information available to local communities through Radio Sila. After only one rainy season, however, there was a break in Concern's funding and the work was suspended until new funding comes in place. This will

inevitably hamper the credibility of the information flow. Without the kind of dialogue described in the PSP in Box 2, it may also be a challenge to communicate the probabilistic dimension of the climate forecast.

CARE's ALP is based on a model of a two-way flow of information, between the indigenous knowledge and local information at community level and the scientific community at national level. See Figure 2. It has had some success in achieving this in Kenya. More generally, however, the flow of information and knowledge from local to national level is weak, reflecting the top-down nature of many government systems, in Ethiopia for example.

Figure 2:
Two-way flow of climate information, between national and community level



Source: Ambani and Percy, 2014

Some of the greatest successes in climate forecasts triggering community-level early action have been warnings of rapid onset natural disasters, especially flooding. These are usually time-bound, warning of floods in the next 24 hours, or in the next few days. Early warning of a flood hazard can be used immediately by local communities, for example to evacuate⁵. On the other hand, climatic early warnings for slow onset food crises are more challenging, with higher levels of uncertainty. The action required depends not just on the hazard – usually drought – but also on an understanding of underlying vulnerability and of coping strategies, which may vary between and within communities.

Many national EWS depend upon EW data being collected at local level. For example, the SAP in Niger depends upon EW committees at regional and commune level for information. Twice a year data is collected at sentinel sites from villages regarded as representative of a

particular livelihood zone and fed into the Cadre Harmonisé. In Ethiopia the national EWS has long depended upon data and information collected by local authorities. But this does not automatically mean that the system is 'community-centred', nor does it mean the information flows are two-way and that EW flows back to local communities. The relationship between national and local levels is often more of an extractive one, with information flowing in one direction, to the capital city. Recognising this, the National Disaster Risk Management Commission in Ethiopia is collaborating with Oxfam GB and Christian Aid on an improved 'Early Warning – Early Actions' project to strengthen the national to local linkages, for example linking the EWS to Woreda Disaster Risk Profiles to promote early action, and strengthening the capacity of first responders at community and local government level⁶.

5. This happened in Kenya in 2013 when Ministry of Agriculture officials warned farmers of the rising level of the River Tana, action that had been discussed in advance through the PSP. This enabled community members to remove themselves and their assets from the river banks (C4 EcoSolutions 2017b).

6. See <https://disasterpreparedness.ngo/project/improved-early-warning-early-action-ethiopia/>

6. Ensuring local communities perspectives and priorities inform the national and international response and trigger early action

Achieving this has been particularly challenging, first to ensure the national and international responses are *timely*. As evaluations and research have shown, the issue is rarely lack of early warning or ‘not knowing’. Rather it is about overcoming the well-documented systemic obstacles to early response, such as bureaucratic inertia, risk aversion, lack of political will, and lack of capacity at national level (Buchanan-Smith and Davies, 2016; Bailey, 2013; Ibrahim and Kruczkiewicz, 2016). Good technical early warning is not enough. It must be accompanied and supported by a strong communication and advocacy strategy⁷. But that is often to trigger a conventional humanitarian response of food assistance, cash transfers, nutrition and water hygiene and sanitation (WASH) measures.

Second, ensuring the response is *informed by, and follows the priorities of local communities*, is yet more challenging. Bailey (2013) distinguishes between a ‘livelihood crisis’ when people are forced to abandon normal livelihood strategies and adopt short-term coping strategies, and a ‘humanitarian emergency’ when coping strategies can no longer prevent significant deterioration in malnutrition and mortality. Early action means identifying and

responding to the livelihood crisis. The challenge for an EWS is pinpointing the ‘tipping point’ between a livelihood crisis and an emergency when the response must be scaled up. However, for this kind of EWEA system to be sensitive to the livelihoods of different groups and to be community-centred requires a localised and granular approach that is rare in most national EWS operating at scale.

ACTED’s Drought Early Warning System (DEWS) in Karamoja, Uganda, is an example of a localized EWS operating at sub-national level, providing detailed information for different livelihood zones: agricultural, agro-pastoralist and pastoralist. Twenty-one indicators are monitored over six sectors, including information on vulnerability. Thresholds have been identified for each sector, to indicate whether it is in the ‘normal’, ‘alert’, ‘alarm’ or ‘emergency’ stage (Ogwang, 2012). This may be one step towards community-centred EWEA but does not guarantee that the response will be informed and influenced by local people’s perspectives and priorities.

Concern’s experience in Somalia is another example of a granular approach at community level, designed to provide EW, advocacy for early action, and localized early response activities. See Box 3.

7. See Buchanan-Smith and Davies (1996); Bailey (2013)

Box 3. Community-centred early warning and early action: the experience of Concern Worldwide in Somalia

Through its resilience programming (under BRCiS) in Somalia, Concern Worldwide has experimented with a process of EWEA that appears to have worked in response to the 2016/17 droughts. First it ‘red flags’ communities that have experienced one big shock, such as one season of poor rainfall, to trigger mitigation activities in the expectation that most pastoralist communities can withstand one below-average season but not two. Using seasonal forecasts in 2016 Concern was able to identify ‘red flag’ communities early, before the respective rainy season had ended, and thus trigger early responses some months prior to the launch of the major emergency humanitarian response. Using a simple ‘value for money’ calculation of the per household cost of the response, based on the probability of the next rainy season failing, the Concern team was able to demonstrate that it was more cost-effective to respond early than late. This was used in its advocacy with donors. The early response activities launched by Concern included (1) fodder production through ‘Fodder Field Schools’ and contracting farmers – the fodder was subsequently distributed in red-flagged villages, and (2) cash transfers which began in June 2016 targeting the poorest 10% in Concern’s project locations. The cash transfers were scaled up (in terms of households targeted and the amount per household) in November 2016 when it became clear that the *Deyr* rains (October to December) were starting late. Concern called this ‘no regrets’ programming, concluding that if it was not needed in 2016 it probably would be in 2017. The continued poor rainfall in the two rainy seasons in 2016 meant that it was indeed needed. When the full emergency response was launched, in early 2017, the cash transfer programme could be scaled up further.

Source: Caniglia and Baran (2017); Du Bois et al (2018); key informant interviews

Cash transfers were a key part of the early response, which could be scaled up as the drought intensified.

To some extent a national/ international response based on cash transfers gives local communities more say over how they use the resources to meet their priorities and needs. Indeed, this is one of the justifications of cash transfers (CaLP, nd). But research at community level reveals how this is not always so straightforward. When community views were canvassed in Wajir county in Kenya in 2013, local people prioritised support for sustainable livelihoods, for example through livestock market reform and information, over cash transfers. They also made the case that cash transfer programmes should be implemented with full engagement from the community, from targeting to decisions about timing. Yet, rather than building sustainable livelihoods, most emergency projects are short-term, do not take a long-term perspective, and may even result in increased vulnerability in the longer term. On this last point, cash handouts were seen to accelerate the growth of existing and new settlements in Wajir county, increasing vulnerability and reducing livelihood resilience (McCarthy and O'Hagan, 2013). A review of evidence and research needs on pastoralism, disasters and protracted crises in East Africa similarly identified interventions closely related to pastoralist livelihoods as appropriate early action: early commercial destocking when drought is imminent and restocking when the rains resume⁸. This review highlights the need to link such short-term actions to the longer-term objective of private sector driven market integration to be effective (DFID, 2017).

This raises a fundamental challenge for all actors at local level: how to engage with and really listen to local communities, recognising

that they are not homogenous but comprise different groups with different priorities and needs. Research in Mwingi district in Kenya found that communities did not see drought as the major threat but other issues such as young school boys' access to the legal drug *Miraa (khat)*, and poorly functioning schools and the long distances children must walk to school, which in turn triggered other vulnerabilities. The youth talked about feeling marginalised from community leadership, and hence their withdrawal from community development activities. The research findings showed little alignment between the communities' concerns and agencies' conventional thinking on early warning related to weather and climate change (FAO and Trocaire, 2012).

Some of the learning emerging from this research and other examples, includes:

1. Starting with the community's perception of threats and priorities rather than the agency's. This is a real challenge in a sector which requires detailed proposals and log-frames from agencies spelling out what will be done, how, and the anticipated results, usually in advance of serious engagement and consultation with local communities, with little room for flexibility and manoeuvre.
2. Being careful not to make assumptions, for example that drought is the major hazard that communities face, or that cash transfers are the best response.
3. Getting beyond the community's 'gate-keepers' and engaging with different groups within the community.
4. Ensuring that short-term emergency responses take a long-term perspective.

This is a challenging agenda, especially to implement at scale.

7. Institutionalising community-centred EWEA within national governments

7.1 Introduction

Box 1 demonstrates the limitations of a projectised approach to community-centred EWEA. Institutionalising such a system within government might appear to be a better option, but this depends greatly on the governance and political context of the country concerned. In stronger and more stable states this may be feasible. In fragile and weak states it is less likely to be a practical option.

7.2 In stronger and stable states

Kenya offers an interesting example of an institutionalised national EWS that has the potential to be community-centred. See Box 4. Unusually the national-level EWS has evolved from the local level. It has taken over 20 years to embed. As Oduor et al (2014:216) explain: 'drought is a perennial risk and therefore requires both continuity of approach and the space to make constant improvements to practice over time. A project with a finite shelf-life is unable to deliver this. The more permanent nature of a state corporation provides scope for sustained learning and growth, as well as oversight of the longer-term development processes that will build drought resilience'.

The new constitution adopted in Kenya in 2010 heralded an ambitious decentralised system of government. Responsibility for drought management was similarly decentralised. The county level has now become key in the line of response although capacity at this level has been weak. In arid and semi-arid counties, steering groups have been established for drought management, chaired by the National Drought Management Authority (NDMA). These are responsible for developing proposals for submission to the Drought Contingency Fund.

Whilst government has decentralised there has been substantial investment in Kenya in community-based DRR activities, often facilitated and led by NGOs. CARE's ALP has been rolled out in Kenya, as mentioned above, with community-level PSPs. Some NGOs have worked at community level to facilitate their engagement with local authorities and thus to strengthen the voice of local communities in the decentralised governance structure. See Box 5 on how Concern is facilitating 'community conversations,' linked to EWEA.

The 'Hunger Safety Net Programme' (HSNP) in Kenya, supported by government and by international donors, based on cash transfers,

Box 4: A long-term and iterative approach to establishing the institutional infrastructure and policies for drought management in Kenya

The NDMA in Kenya was established in 2011. As Oduor et al recount: 'the creation of a permanent and specialist institution in government to manage drought-related risks was the culmination of many years of work by many actors, both within the government and outside it' (Oduor et al, 2014: 209). This authoritative account of the evolution of Kenya's drought management system traces its roots back to the Turkana Drought Contingency Planning Unit established in the second half of the 1980s. The Turkana district early warning and contingency planning system was expanded to a further four districts in the north and north-west of Kenya in 1992, complemented with the Emergency Drought Recovery Programme in north-east Kenya which was implemented by government rather than NGOs. This fed into the Arid Lands Resource Management Project (ALRMP) implemented by the Government of Kenya between 1996 and 2010, further extending the geographic coverage of the drought early warning and contingency planning system to all arid land districts. Despite the progress made, however, the limitations of a project-based approach soon became apparent when the ALRMP closed in 2010. The response to severe drought the following year, in 2011, was woefully inadequate. This encouraged government to establish permanent mechanisms for drought management, with the formation of the NDMA and the National Drought Contingency Fund. Oduor et al conclude that: "From the first project design in 1985 to the creation of the NDMA in 2011, the Kenyan system took 26 years. It was well-resourced during this period. It would be optimistic to expect it could have been done much faster or with fewer resources" (ibid: 222).

The EWS now covers 14 counties and works through a network of sentinel sites and field monitors drawn from local communities. The field monitors work with data analysts at county level. With decentralisation there are now Pastoralist Management Committees set up at ward level (below county level), with membership drawn from local communities. Thus, the institutional infrastructure is being established for a more decentralised drought management approach, with the potential and aspiration to be more community-centred.

Sources: Oduor et al, 2014; Buchanan-Smith et al, 2017; key informant interviews

is intended to speed up the timeliness of the response.

Decentralised drought management has been put to the test in the recent drought emergency in Kenya in 2016/17. Key informants and a recently published UNICEF Real Time Evaluation (RTE) provide useful feedback on progress in becoming more community-centred and challenges to be overcome. The UNICEF RTE (Hailey and Balfour, 2018) concludes that the emergency response in northern Kenya in the health, nutrition and WASH sectors (implemented by UNICEF working closely with government), corresponded to the needs and priorities of affected people, but there was a lack of community engagement and participation in many aspects of the programme cycle. For example, the opportunity to engage with community DRR plans and committees was missed, by NGOs as well as by government, despite considerable investment in those community-centred DRR processes in advance of the drought. There were also challenges in positioning the response within longer-term resilience building strategies. The RTE highlights the need for long-term investment to strengthen government capacity at county level, with some success stories, for example UNICEF's investment in the Integrated Management of Acute Malnutrition (IMAM) surge model⁹ and in

9. The IMAM surge model flags increases in need at local health centres, although the RTE highlights the weak link to the community-based health system which hampers the extent to which it is truly community-centred

the health system. The overall sense is that devolution has made EW and EA more localised, but community voices are still struggling to be heard.

Kenya's experience highlights some of the critical factors in effectively institutionalising EWEA systems and giving them a localised community-centred focus, and some of the practical challenges. These include:

1. Establishing the institutional infrastructure and policies, which may take years, even decades, of commitment and collaboration between government and international actors and funders.
2. The slow process of building political will behind EWEA.
3. The value of a strong disaster management authority, the NDMA, which has avoided fragmentation across line ministries.
4. The importance of a functioning 'middle' layer of government, at county and sub-county levels, with a strong connection or social contract with local communities; yet the challenge and time it takes to build local government capacity, and the bigger challenge of supporting local communities to engage with local government and hold it to account.

Box 5: NGOs facilitating community-centred EWEA – Concern's 'Community Conversations' in Marsabit, Kenya

Concern Worldwide developed an approach it calls 'community conversations', originally as a tool for behaviour change in HIV and AIDS programming. It has since been developed to promote citizen participation within Kenya's devolved system of government. The aim of community conversations is to promote inclusive dialogue so that communities are empowered to determine their own future. Concern's role is providing facilitation for the process. In Marsabit County community conversations have been used for advance action planning for disaster management. Another aspect has been making national-level early warning available to local communities. Using the NDMA's colour coding of the four different early warning phases, from Normal through Alert, Alarm to Emergency, a flag of the respective colour is put up in the school to communicate to the community how national government perceives the situation. The community then takes action as it sees fit, regarding itself as the first line of response. For example, in response to warnings of imminent drought the community began to repair water points to ensure its water infrastructure was in a good state. The second line of response is local government. Concern supports communities to link with the local authorities, communicating their priority needs. As a result they have successfully mobilised government funding for infrastructural projects to strengthen resilience against drought, for example the construction of underground water tanks and fencing of rangeland reclamation plots that have been re-seeded for pasture regeneration. In 2016 community priorities were fed into the Marsabit County Budget. The process of community conversations was also used for targeting the (externally provided) humanitarian response – in 2017 cash transfers as part of Kenya's HSNP – thus ensuring community ownership of the targeting process in an effort to support rather than undermine social capital and safety nets within the community. Concern is still experimenting with community conversations as an approach for community-centred EWEA. A key learning from the recent drought response is ensuring that elders in the community are fully involved in the dialogue and decision-making process. For example, the community appeared to have made the decision in advance to sell their livestock when early warnings indicated imminent drought. Instead, the community migrated their livestock to neighbouring Wajir District and to Ethiopia, on the initiative of the elders.

Sources: Concern Worldwide (2013); key informant interviews; www.concernusa.org/project-profile/community-conversations/

7.3 In weaker and fragile states

In many African countries the local layer of government is very poorly resourced, especially in fragile and weak states. In these cases, even when the institutional architecture for EWEA has been well-planned, the execution may lag far behind the aspiration. See Box 6.

The Mid-Term Review of the Global Strategic Programme of the Integrated Phase Classification System (IPC) concluded that institutionalisation of the IPC at national government level depended upon:

1. a functional institutional framework for food security/ disaster management.
2. high level political will and commitment: without that, a technical solution cannot fill a political vacuum.

It also warned against handing over the IPC to government in countries where it is party to the conflict, there is a risk of political manipulation of the results, or where security and defence are likely to be prioritised over food security. (Buchanan-Smith et al, 2017)

These findings are equally relevant to institutionalising community-centred EWEA. The Mid-Term Review concluded that as long as international actors are users of IPC results with a vested interest in its effective functioning, there is a strong case for co-funding between donor

governments and national governments (ibid). This finding can be applied to community-centred EWEA in fragile and weak states, especially where government may have very limited resources and/or little interest in supporting community-centred EWEA.

In such contexts it may be more appropriate and effective to promote community-centred EWEA through civil society organisations. Bailey made the case in 2013:

“Some of the most promising investment opportunities lie in empowering vulnerable communities with EWI (early warning information) and the capacity to act. This is particularly urgent in national contexts of low government capacity or where communities are politically marginalised”. (Bailey, 2013: 78)

Box 1 provided a short history of this approach in Darfur, Sudan over three decades. The most recent attempt, the MMTA project implemented between 2010 and 2017 was strongly embedded in civil society, managed by a national NGO and working through over 40 Community Based Organisations (CBO) (Buchanan-Smith, 2017). However, Box 1 also demonstrates the flaws of such a projectised approach when it is based on short-term funding. Instead, it requires a long-term vision, and long-term planning and funding horizons.

Box 6: The challenge of community-centred EWEA when local government is weak: the example of Chad

The institutional structure for early warning and response is clearly articulated in Chad. It was officially re-established through a Prime Ministerial decree on 4th March 2014. This establishes a hierarchy of committees responsible for collecting, collating and analysing early warning information, and for determining regional and local development priorities and coordinating local development:

1. At national level the Comité d'Action pour la Sécurité Alimentaire et Gestion des Crises, chaired by the Secretary-General of the Ministry of Agriculture
2. At regional level the Comité Régional d'Action
3. At district level the Comité Départemental d'Action
4. And at canton level the Comité Local d'Action (Gubbels, 2014)

However, the institutional capacity is missing, especially at sub-national level. In 2015 a key stakeholder estimated that around 60% of the Regional Action Committees (CRA) were not meeting regularly (Buchanan-Smith, 2015). Staff capacity is low, there are limited or no resources for activities, and often no power or internet access. The CRAs and Local Action Committees (CLA) have usually worked best when supported by NGOs and other international organisations (ibid). The 'Système d'Information Durable sur la Sécurité Alimentaire et d'Alerte Précoce' (SISAAP) has supported and trained staff to act as focal points at the decentralised level of government. But when staff and other resources are not available at this level of government, the system can become heavily dependent on one person, and adversely affected when that person is absent. This has been a major hindrance to establishing and sustaining community-centred EWEA in Chad.

Sources: Gubbels, 2014; Buchanan-Smith, 2015; key informant interviews

8. Institutionalising community-centred EWEA within the international aid system

Some of the persistent obstacles to the international aid system responding to EW with early action are systemic, for example risk avoidance and bureaucratic inertia, despite growing evidence of the financial benefits of responding early¹⁰. So how can community-centred EWEA be institutionalised within the international part of the response? Bailey (2013) called for operational, funding and institutional reform. There have been some positive initiatives in recent years, including the following:

1. **'Crisis modifiers'**: these were pioneered by USAID in Ethiopia and Kenya for pastoralist livelihoods whereby implementing partners can agree revisions to livelihood programmes in response to drought and other crises, and avoid the lengthy process of submission and approval of new proposals. The extent to which this encourages and enables community-centred early action depends upon the respective implementing partner's knowledge of, and relationship with local communities, as well as the donor's willingness for the crisis modifier to fund non-traditional humanitarian activities (FIC, 2015). Crisis modifiers are now used by other donors including DfID and the EU. Under the BRACED programme, CARE used its PSP approach with farmers, pastoralists and others in Tillabéry in Niger to inform its use of the crisis modifier in 2015/16. Community Adaptation Plans were drawn up collectively through PSP workshops. This informed the response: a cash for work programme, distribution of fodder for dairy cows and livestock, distribution of improved seeds. Although there was a three-week delay in the approval process, it was still judged to be appropriate when it was finally implemented (Peters and Pichon, 2017).
2. **'No regrets' action**: this refers to early action being taken to support productive activities, public goods or service delivery which can contribute to building resilience in the longer-term, even if the early warnings of a food crisis turn out to be a false positive (ibid). See Box 3 for an example of how this was used by Concern in Somalia at community level in 2016/17.

3. **'Forecast-based financing' (FbF)**: developed by the Red Cross Red Crescent Climate Centre (RCCC) in cooperation with the German Red Cross (GRC), this initiative is designed to release funding for early action automatically based on climate forecasts. Actions are pre-agreed, embedded in Standard Operating Procedures, and triggered when the forecast reaches a certain threshold of probability (Hassan and Neussner, 2016). Again, the extent to which this is community-centred depends on the level of community engagement in formulating pre-agreed actions.
4. **'Internal Risk Facility' (IRF)**: this mechanism was developed by DFID to facilitate an early response to emerging crises. Rolled out in Somalia, it is based on 15 indicators at district and sub-district level as quantitative triggers to release funds to DFID's implementing partners for early preventative action (LaGuardia and Poole, 2016).

The first two initiatives are intended to speed up early action and to break down some of the barriers between longer-term programming and short-term humanitarian funding. The second two are examples of trigger-based initiatives. While each of these can facilitate early action, whether it is *community-centred* early action depends entirely on the relationship between the respective implementing partner and the local communities they aim to support. As the Overseas Development Institute's (ODI) report, 'Time to Let Go', argues, incentive systems need to change so that the needs of people affected by crises trump organisational drivers for greater resources and visibility. (Bennett, 2016)

While none of the initiatives cited here has yet been 'institutionalised' across the aid sector but instead are the initiatives of a few agencies, they are attracting attention and offer the potential for different ways of operating.

10. See, for example, Cabot Venton (2018) which demonstrates that in Somalia: 'an early humanitarian response would save an estimated US\$220 million on cost of humanitarian response alone over a 15-year period. When avoided income and livestock losses are incorporated, an early humanitarian response could save US\$460 million, or an average of US\$31 million per year' (ibid:4)

9. Conclusions

In the Horn of Africa and across the Sahel early action in response to early warning has been an elusive goal. This paper shows that some progress has been made in triggering early action in recent years. But these are mostly on a 'case by case' basis, and are probably still anomalies. Even more challenging is ensuring that EWEA is 'community-centred'. From the information or EW side, this requires:

1. Support at the community level to ensure EW information reaches them from the national level, is accessible and can be used. The climate information community has most to offer in this respect. Their experience shows the importance of supporting communities to interpret EW information and to identify appropriate action, going beyond dissemination to communication, and promoting stakeholder dialogue. The challenge now is to take this work beyond climate information, to include early warning of other, non-weather-related hazards and threats.
2. Sufficiently granular EW information available to national and international responders about what a hazard or threat means for different communities, especially for different livelihood groups (as well as for different groups within communities). This more localised and granular information may have to complement more macro information available from higher level EWS.

To ensure the response is not only timely but reflects the needs and priorities of local people requires:

1. Really listening to communities, beyond conventional humanitarian response options, to hear their priorities especially when they do not align with the humanitarian 'blueprint'.
2. Long-term engagement with communities, not only in the run-up to a slow-onset food crisis, ensuring they are also involved in the design and implementation of any external response as well as in assessments and planning.
3. Better linking DRR and preparedness work at community level in advance of a crisis, with the response.
4. Responses which are more livelihoods oriented, and which are likely to have a longer term impact as well as provide short-term protection to livelihoods and lives.

This is an ambitious and challenging agenda, especially given the current state of affairs where community-based DRR planning is not yet adequately informing early action by international agencies, where so much community-based engagement by NGOs is projectised and dependent on short-term grants, and where the reporting and incentive systems within the international aid system still seem far-removed from incentivising deep community engagement. But as this paper has shown, there are good practice examples to learn from, and at its best, the resilience paradigm has provided space for some innovative community-oriented planning and programming, in some cases (eg Box 3) successfully enabling an early response to a 'livelihoods crisis' before it becomes a 'humanitarian crisis', breaking down some of the unhelpful humanitarian/development distinctions. NGOs and local government, ideally working together, are key to taking this forward.

Achieving this at localised level is already a challenge, achieving it at scale even more so. In strong and stable states this requires institutionalisation of community-centred EWEA systems within government. The role of local government is key. The experience of drought management in Kenya offers a lot of insights and learning, and demonstrates what is needed to make this a reality as well as some of the obstacles. In fragile and conflict-affected states institutionalisation within government is not a realistic option, especially where conflict is one of the causes of food crises and where government is party to the conflict. Instead, civil society organisations must play a key role, with a long-term commitment, until government is able to take this over.

There is also a need to build evidence of the impact and benefits of community-centred EWEA to affected people. The evidence base is currently weak and the benefits to local communities are often self-reported by implementing agencies. There is a need for more impact evaluations and objective research studies to capture the views of the affected people themselves.

10. Community-centred EWEA system: an agenda for action

Community-centred EWEA means delivering a rapid response to the warning signs of slow onset disaster in a way that takes full account of the community's perception of the major threats they face, the dynamics of vulnerability within the community and their capacities to respond themselves. For EWEA systems operating at scale, a community-centred approach is necessary to ensure the perspectives of those affected by the crisis complement high-level aggregated data and ground the EW information system and response in the lived experience of the disaster.

Based on the findings of the study, a number of actions to support the delivery of community-centred EWEA can be identified (see below.) Research and impact evaluations that explore how affected people experience the benefits of community-centred EWEA would also help to build the case for it and would contribute to the learning and adaptation, necessary for it to remain relevant and effective.

1. Engage systematically with the community:

Local government and implementing agencies should:

Build strong linkages between EWEA and community-level DRR plans, to ensure EWEA builds on community perceptions of the threats they face, and to inform the early response.

Ensure community-engagement includes different groups, especially marginalised groups, to ensure their perspectives and experiences are heard beyond the community's 'gatekeepers'.

International donors should:

Adapt planning and incentive systems so that implementing partners at local level are encouraged and rewarded for listening to communities and designing and adapting their early action programming accordingly. This may trigger a different set of interventions to the conventional humanitarian response options.

2. Promote the two-way flow of EW information between communities and national/ local level institutions:

National governments and implementing agencies should:

Move away from a system focusing on top-down dissemination, to facilitate two-way dialogue between stakeholders (eg. local level representatives of national institutions and communities.)

Ensure that when more technical EW information is shared at community level, it is done so in a way that makes it accessible and useable for local communities. (There is valuable learning from the experience of the climate information community on this.)

3. Take a long-term approach to supporting the institutionalisation of community-centred EWEA:

a. In strong and stable states

International donors and national government should:

Build government capacity and strengthen the institutional infrastructure and policies for responding to slow onset food crises (and other disasters) at national level.

Strengthen the relationship/social contract between local government and communities so that community voices are heard and represented at local level.

b. In weak and fragile states

International donors and national government should:

Co-fund EWEA systems at national level as national government is unlikely to have the resources, and may not have the political will to fully fund an EWS, while donor governments are key stakeholders and users of national level EWS.

International donors should:

Support and strengthen civil society organisations to run community-centred EWEA, with a long-term commitment.

International donors should:

Move beyond short-term projectised funding to deliver long-term strategic support and investment.

Acronyms

ALP	Adaptation Learning Programme
APU	Agricultural Planning Unit
BRCiS	Building Resilient Communities in Somalia
CLA	Local Action Committee
CRA	Regional Action Committee
CBO	Community-based organisation
DDRA	Darfur Development and Reconstruction Agency
DEWS	Drought Early Warning System
DFID	Department for International Development (UK)
DFIS	Darfur Food Information System
DRR	Disaster Risk Reduction
EA	Early Action
EW	Early Warning
EWEA	Early Warning Early Action
EWS	Early Warning System
FbF	Forecast-based Financing
GRC	German Red Cross
HSNP	Hunger Safety Net Programme (Kenya)
IPC	Integrated Phase Classification System
IRF	Internal Risk Facility
MMTA	Market Monitoring and Trade Analysis
NGO	Non-Governmental Organisation
ODI	Overseas Development Institute
PSP	Participatory Scenario Planning
RCCC	Red Cross Red Crescent Climate Centre
SAP	Système d'Alerte Précoce
WASH	Water, Hygiene and Sanitation
WHS	World Humanitarian Summit

References

- Ambani, M., and Percy, F. (2014) 'Facing Uncertainty: The Value of Climate Information for Adaptation, Risk Reduction and Resilience in Africa'. CARE International, August
http://www.careclimatechange.org/files/Facing_Uncertainty_ALP_Climate_Communications_Brief.pdf
- Bennett, C. (2016) 'Time to Let Go. Remaking Humanitarian Action for the Modern Era'. ODI, HPG. April
- Brosio, G. (2000) 'Decentralisation in Africa', October
- Bailey, R. (2013) 'Managing Famine Risk. Linking Early Warning to Early Action'. Chatham House. April
- Barrows, B., and Buchanan-Smith, M. (2017) 'Market Monitoring and Trade Analysis in Darfur. A Guide for Practitioners'. DDRA, SOSS, Tufts/FIC, UKAID, BRACED. March
- Buchanan-Smith, M. (2015) 'From CRAM to BRACED: Concern/ Tufts EWS in Goz Beida: a Review and Way Forward'. November
- Buchanan-Smith, M. and Davies, S. (1996) '*Famine Early Warning and Response: The Missing Link?*', London: IT Publications
- Buchanan-Smith, M., Longley, K., Nicholson, N., and Watson, F. (2017) 'Mid-Term Review of the IPC Global Strategic Programme' January
- Buchanan-Smith, M. (2017) 'Market Monitoring and Trade Analysis in Darfur: "localisation" in practice'. October
<https://odihpn.org/blog/market-monitoring-trade-analysis-darfur-localisation-practice/>
- C4 Ecosolutions (2017a) 'Impact Assessment on Climate Information Services for Community-Based Adaptation to Climate Change. Ethiopia Country Report'. CARE
- C4 Ecosolutions (2017b) 'Impact Assessment on Climate Information Services for Community-Based Adaptation to Climate Change. Kenya Country Report'. CARE
- Cabot Venton, C. (2018) 'Economics of Resilience to Drought: Somalia Analysis'. USAID Center for Resilience, January
- Caniglia and Baran (2017) 'Added Value of Resilience Programming to the Ongoing 2017 Drought Response' Concern.
- Du Bois, M., Harvey, P., and Taylor, G. (2018) 'Rapid Real-Time Review. DFID Somalia Drought Response'. Humanitarian Outcomes for UKAID, January
- CaLP, nd, 'Making the Case for Cash: a quick guide to field advocacy for cash transfer programming'
http://www.cashlearning.org/downloads/resources/tools/cal_p_making_the_case_for_cash.pdf
- Concern Worldwide (2013) 'Community Conversations. Opportunities for Systematic and Inclusive Citizen Participation in Kenya'
- DFID (2017) 'Pastoralism, disasters and protracted crises in East Africa: A review of evidence and research needs'. DFID Research and Evidence Division, UK (unpublished)
- FAO and Trocaire (2012) 'Giving Voice to Disaster Affected Communities in East Africa'. Mwingi District Exercise, Eastern Province, Kenya. June
- FIC (2015) 'Early Response to Drought in Pastoralist Areas: Lessons from the USAID Crisis Modifier in East Africa'. Final Draft. Feed the Future. The US Government's Global Hunger and Food Security Initiative. USAID. November
- Gubbels, P. (2014) 'Chad National Policy Review Using a Resilience Lens'. Report for the Proposal Development Phase of BRACED, June
- Hailey, P. and Balfour, N. (2018) 'UNICEF Real Time Evaluation on the Emergency Drought Situation Response in Kenya, 2017. Final report'. 30 March
- Hassan, A. and Neussner, O. (2016) 'Trigger for Early Action: Forecast Based Financing'. Dhaka: German Red Cross.
https://www.preventionweb.net/files/submissions/52241_germanredcrossbangladeshforecastbasedfinancingfbftriggerrbookletdecember2016.pdf
- Ibrahim, M., and Kruczkiewicz, A. (2016) 'Learning from Experience: a review of early warning systems. Moving towards early action 2016'. World Vision UK and International Research Institute for Climate and Society
- Kniveton, D., Visman, E., Tall, A., Diop, M., Ewbank, R., Njoroge, E., and Pearson, L. (2014) 'Dealing with Uncertainty: Integrating Local and Scientific Knowledge of the Climate and Weather' Disasters Journal
- LaGuardia, D., and Poole, L. (2016) 'Review. DFID's Internal Risk Facility: Changing the Humanitarian Financing Landscape for Protracted Crises? Final Report' Monitoring and Evaluation for the DFID Somalia 2013-2017 Humanitarian Programme. April
<http://www.thirdreofsolutions.com/DFID--Somalia--IRF%20Evaluation--Final%20Report.pdf>
- LEGS 2016. Livestock Emergency Guidelines and Standards (LEGS) Handbook. IT Publications UK. Accessed Oct. 2017 <http://www.livestock-emergency.net/>
- Macherera, M., and Chimbari, M. 'A Review of Studies on Community-Based Early Warning Systems' *Journal of Disaster Risk Studies*, 2016, 1-11
- Majid, N. and Maxwell, D. (2010) 'The Role of Food Security and Nutrition Response Analysis in the Emergency Programme Cycle'
http://www.fao.org/fileadmin/user_upload/fsn/docs/Response/Background_Paper_1_-Majid_and_Maxwell.pdf
- Maxwell, D. and Majid, N. (2016) '*Famine in Somalia. Competing Imperatives, Collective Failures, 2011-12*', Hurst
- McCarthy, G., and O'Hagan, P. (2013) 'Community Views on Mechanisms to Support Local Livelihoods in the Early Stages of Drought'. Kenya Rural Development Programme ASAL DM. A Joint GOK/ EU Project. January
- Oduor, J., Swift, J. and Birch, I. (2014) 'The Evolution of Kenya's Drought Management System', in Z. Zommers and A. Singh (eds.), *Reducing Disaster: Early Warning Systems for Climate Change*, Springer Science and Business Media: Dordrecht
- Ogwang, M. (2012) 'The Early Warning Stage Classification: a tool to enhance the efficiency of the Karamoja Drought Early Warning System' in *Disaster risk reduction in the drylands of the Horn of Africa – Edition 3*. Regional Learning and Advocacy Programme for Vulnerable Dryland Communities. Good practice examples from the ECHO Drought Risk Reduction action plan partners and beyond.
<http://www.oxfamblogs.org/eastafrica/wp-content/uploads/2010/09/REGLAP+Newsletter+Edition+3+22+Feb+2013.pdf>
- Peters, K. (2017) 'The next Frontier for Disaster Risk Reduction: Tackling Disasters in Fragile and Conflict-Affected Contexts' London: ODI, October
- Peters, K. and Pichon, F. (2017) 'Crisis Modifiers. A solution for a more flexible development-humanitarian system? Evaluative learning for resilience. Lessons from the BRACED experience in the Sahel' BRACED Knowledge Manager. ODI

Annex 1: List of people interviewed

Name	Organisation	Country focus (if applicable)
Dan Maxwell	Feinstein International Center, Tufts University	
Nisar Majid	Freelance consultant	
Dom Hunt	Freelance consultant (formerly Concern Worldwide)	
Maggie Ibrahim	World Vision International	
Sheri Lim	CARE International	
Sara Pavanello	Freelance consultant	Ethiopia and Kenya
Luke Caley	START Network	
Grainne Maloney	UNICEF	Kenya
Francis Wambua	NDMA and UNICEF	Kenya
Paul O'Hagan	DFID	Kenya and Somalia
Peter Hailey	Freelance consultant	Kenya
Yacob Yishak	Concern Worldwide	Kenya
Dustin Caniglia	Concern Worldwide	Somalia
Isaac Gahungu	Concern Worldwide	Chad
Kwanli Kadstrup and Abdel Jalil Taha	Concern Worldwide	Niger
Jose Lopez	Global Strategic Programme of the IPC	



Concern Worldwide is an international non-governmental humanitarian organisation dedicated to the reduction of suffering and working towards the ultimate elimination of extreme poverty and hunger in the world's poorest countries.

Concern Worldwide

52-55 Lower Camden Street
Dublin 2
Republic of Ireland
T + 353 (1) 417 7700
www.concern.net

Concern Worldwide (UK)

13/14 Calico House, Clove Hitch Quay,
London SW11 3TN
United Kingdom
T +44 (0)207 801 1850
www.concern.org.uk

Concern Worldwide (UK) registered charity numbers 1092236 (England and Wales) and SC038107 (Scotland).
Charitable company limited by guarantee, registered in England and Wales under company no. 4323646.