



Regional Learning &
Advocacy Programme
for Vulnerable Dryland
Communities

TECHNICAL BRIEF: Pastoral community-based early warning systems Why don't we really understand them?

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Summary

Community-based early warning systems (CbEWS) are essential in empowering communities to prepare for and confront natural hazards (UN-ISDR, nd). Good lessons have been learned from their use in areas prone to sudden onset disasters, such as Asia, and in urban contexts (Mercy Corps and Practical Action, 2010). However, in the pastoralist communities of the Greater Horn of Africa (HoA), where drought as a slow onset disaster is a major hazard, the lessons learned on CbEWS are far fewer. Although a number of CbEWS have been developed with pastoralists, the details are not widely available and they mostly focus on the process rather than their impact.

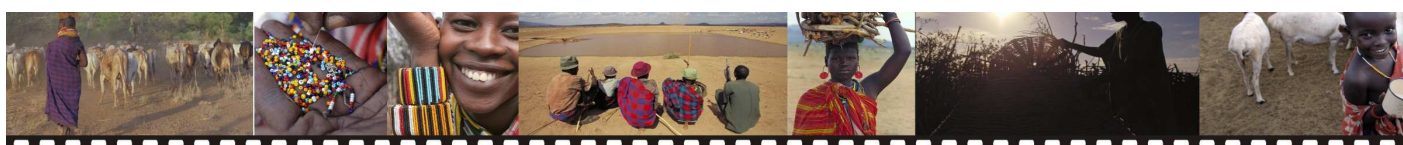
CbEWS are an integral step in the process of community managed disaster risk reduction (CMDRR). They are a means for communities to collectively address a common disaster risk, and to pursue common disaster risk reduction measures (Caritas, 2009). CbEWS are developed, managed, maintained and owned by the community, and in the process they empower the community. They build on what communities already know about the risks they face, their knowledge of anticipating the effects of hazards, and they explore the coping strategies they already use.

The alternative 'formal' Early Warning Systems (EWS) are now found everywhere in a diversity of formats across the Horn of Africa. Recurrent emergencies, and the desire to prevent them, have brought significant levels of investment into Early Warning Systems during the last 20 years (Chinogwenya & Hobson, 2009). However they focus mainly on government-based early warning information — aimed at helping governments, donors and UN food aid institutions — i.e. not those actually affected by a hazard. These EWS are most often tailored to the requirements of humanitarian appeals. This raises a major question — where are the pastoralist communities in the early warning dialogue, and what are practitioners doing to make sure that these communities are part of the discussions?

This technical brief provides an overview of CbEWS in the HoA, drawing on the literature that is available with a focus on case studies from Ethiopia. It discusses the dearth of information on the impact of CbEWS, looks at the

¹ The authors would like to thank Maria Ruiz-Bascaran of SCUK Ethiopia and Alexandra Crosskey for their input and Moges Abebe of Cordaid Ethiopia and Getu Woyessa of Farm Africa Ethiopia for their review of the document.

² Edited by Helen de Jode, Consultant, REGLAP.



major challenges they face, and makes recommendations on how to apply the learning on CbEWS for pastoralist populations and further develop their impact on community resiliency.

Overview of pastoral community based early warning systems

The CbEWS concept has been implemented in the HoA for nearly 20 years. The main objective has been to transform 'at-risk' communities into prepared 'disaster-resilient' communities. The establishment and development of CbEWS is quite diverse. Regional and local variations occur because not every organization has the same approach to facilitating community-based systems, and the contexts and starting points are different. Together they form an interesting pool of experiences based on a common conceptual framework, with all of them comprising the following key elements:

- The tapping of existing organizational structures and mechanisms within communities (identification of local actors);
- Participatory analysis by means of hazard mapping, vulnerability and capacity assessments, community DRR planning etc.;
- Community mobilization and volunteerism, implementation of DRR measures (both non-structural and structural);
- Development of food security monitoring systems, and communication and dissemination plans.

Many of the CbEWS in the HoA region also seek to supplement the formal Early Warning Systems by providing rich and varied information that provides unique insights into pastoralist livelihoods. This livelihood-based information gives support to the community-level decision-making process, and encourages the formal recognition of CbEWS institutions at community level, which can then be clearly linked with formal EWS at the district level. The challenge remains however of how to get the formal Early Warning Systems' information back to the community in a suitable format e.g. providing meteorological satellite imagery in an accessible format for community understanding.

Traditional learning and knowledge form the basis for CbEWS, and it is traditional qualitative measures that are most often used — as opposed to conventional systems that rely on quantitative and 'scientific' data. Broadly, CbEWS indicators will include:

1. Environmental factors: rainfall, pasture / browse, crops, pests, water availability;
2. Livestock factors: body condition, reproduction, milk production, diseases;
3. Human factors: disease, conflict, time for reproductive household duties.

CbEWS differ from the traditional or indigenous early warning systems that all pastoralist communities will have. Although they all tap into existing knowledge and structures at the community level, and are complimentary methods of information gathering, there is one key distinction: **CbEWS seek to monitor and collect information on changes in indicators against normal conditions in a standard way**, whereas traditional monitoring systems will vary widely according to context and culture.

The standard indicators of the CbEWS can easily be linked to the government-based Early Warning Systems, which use similar ones. Data collection is streamlined through simple formats which can be made pictorial for communities that are illiterate. CbEWS can be connected to various levels of governmental Early Warning Systems, from the lowest administrative unit and eventually feeding up into regional data collection. Ensuring data is collected in a standard way, and the interpretation of the information according to the CbEWS groups' perceptions and



community needs, is mandatory to ensure that the transfer of the Early Warning Systems data up the administrative system does not become difficult.

The basic requirements for an effective CbEWS are that:

- Individuals and institutions have knowledge about what is threatening them;
- People are able to monitor, analyze and forecast the hazards;
- Communicating or disseminating a change in threats/ alerts and warnings is possible;
- There is sufficient local capacity to respond to warnings.

The shortage of information on impacts of pastoral CbEWS

The existing literature does not provide many details on the impact that pastoral CbEWS have had. Most of the lessons learned focus only on the modalities of implementation. However, although their contexts vary, the results of the initiatives undertaken by NGOs in pastoralist areas do appear to confirm the gains made in CbEWS and the viability of the community-based approach. There are clear benefits of CbEWS in pastoral communities that a variety of stakeholders agree upon. These include:

- A community-managed and owned system is low cost, low-tech, relevant and useful for communities themselves;
- CbEWS can supplement formal EWS by providing rich, site-specific information that offers an insight into livelihoods as well as disasters;
- With a CbEWS, contingency plans can better defined as communities make a solid input of their needs and priorities via CbEWS committees;
- CbEWS can offer enough information to trigger further technical assessment when necessary;
- CbEWS heighten awareness of food security, disaster preparedness and response issues within the communities.

Many pastoral communities have voiced their interest and willingness to have strong community involvement in early warning information collection and analysis (Abidnoor & Eshete, 2008). Therefore, importantly, CbEWS fulfil a felt need by communities, fostering dialogue and empowerment.

Challenges and opportunities

The process of developing a CbEWS within a pastoral livelihood system presents a number of challenges, and there is no clear strategy on how to address them. One major challenge is the lack of standardization on the process of implementing a CbEWS — this is in spite of the fact that information on good practices is readily available. Both Oxfam GB Kenya's Wajir Pastoral Development Project (Rahman, 2001) and Save the Children UK Ethiopia's CAMELIS project (Isaak and Yusuf, 2010) cited this lack of standardization as a major challenge to their projects' sustainability. CbEWS are also often perceived as duplicating the national system, or their traditional indicators are not recognized (Abidinooor & Eshete, 2008)— issues that are fostered by the continued lack of standardization of implementation.

Another challenge is that pastoral communities themselves are not fully aware of the importance of CbEWS (Isaak & Yusuf, 2010). There is confusion among the communities and some stakeholders as to whether the communities



should be the users or the recipients of such information. In reality, the communities should be both. However, for this to happen the CbEWS needs to be well implemented, with connections to appropriate, timely, community-relevant information. Additionally, the CbEWS needs to be active in 'normal' periods and not only in emergency times. To achieve this the communities must be able to see the benefit and/or have the means to collect, analyze and disseminate the information themselves. Both FARM Africa and SCUUK cite example of breaks in information flow in the absence of NGO support (Jackson, 2010 and Isaak & Yusuf, 2010).

Funding is also a critical challenge. CbEWS should ideally only be initiated if there are locally available contingency funds e.g. at the location or at village level. However, all too often contingency funds are kept at district or regional level, which poses further challenges on how these funds are dispersed and managed. Locally available supplies or capacities are also less available at the lower administrative levels, and links need to be strongly developed to mid-level administrative units (Jackson, 2010) with linkages up to district plans (Isaak & Yusuf, 2010). Another challenge is that CbEWS often stop as projects end, as the formal government systems do not incorporate CbEWS and there is no other formal institutional and legal framework for them to link into (Tekle & Adamu, 2009).

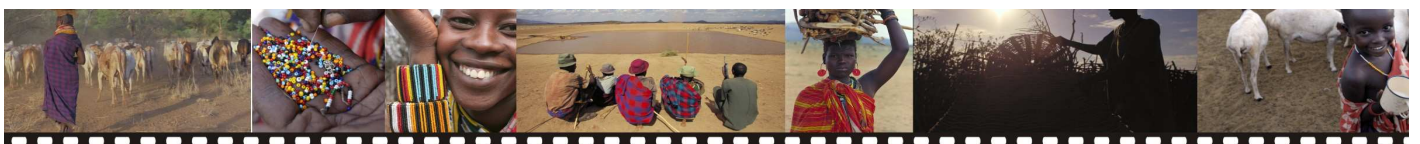
One opportunity on the horizon in Ethiopia that might address some of these challenges is the draft National Disaster Risk Management (DRM) policy. This document includes extensive references to the importance of community participation in DRM. The draft policy supports the development and strengthening of institutions, mechanisms and capacities at the community level as part of a systematic contribution to building resilience to hazards. With the embracing of this philosophy CbEWS will have a clear future and will become institutionalized in Ethiopia.

Recommendations

CbEWS are one step in a larger process of CMDRR, which must be connected to support from government, community and other relevant stakeholders in the management of disasters. It is essential however, that as a unique step in the process, CbEWS are understood in terms of their own virtues, strengths and weaknesses. In order to better understand CbEWS, and what they can or cannot offer, the following needs to happen:

1. ***The standardization of approaches and agreement on good practice principles for implementation:*** Variations in implementation design can threaten the CbEWS' credibility with stakeholders. While there may be some regional variation, a minimum standard of good practices should be followed. FARM Africa's manual on experiences in South Omo is a good basis and can serve as a model. It highlights the role of CbEWS as a foundation of CMDRR, its connections to government structures, how to build stakeholder relationships, the establishment of community response funds etc—all of which are essential elements. Training communities, government and practitioners according to these standardized methodologies is important, as they are all key stakeholders in the process. To promote an exchange of ideas, experiences, and lessons learned (both good and bad) in order to improve understanding of CbEWS the following will be needed:

- Gathering and systematizing experiences elsewhere in pastoral areas to generate, print, and distribute documentation in various languages;
- Elaborating and distributing guidelines, manuals, and blueprints to implement or upgrade CbEWS;
- Establishing a forum for discussion and the sharing of experiences in CbEWS in pastoralist settings.



2. **The establishment of a body of evidence on impact:** On the ground assessments need to be made with communities, local governments and practitioners on the real impacts of CbEWS. Case studies on their effectiveness must be well documented from a variety of pastoral and agro pastoral settings (e.g. remote, peri-urban) with the findings widely distributed. Key areas of study should be on:

- The communities' perceptions of CbEWS in terms of their own empowerment
- The links between CbEWS and earlier responses to hazards
- How CbEWS contribute to an enabling environment for community led responses
- The research on capacity gaps and indigenous knowledge that is necessary to integrate the CbEWS into the socio-economic development process

3. **The comparison of CbEWS and 'scientific' methods:** An interesting analysis would be one that looked at the medium to longer term information collected by CbEWS, and compared it with that of the government based systems in terms of the accuracy of its predictions. This could help to build the case for increased acceptance of CbEWS by government officials, as well as encourage the communities to provide further information. It might also yield insights into where the two methods contrast and/or help communities to see where their traditional indicators may be becoming less reliable due to changes in external factors.

4. **Institutionalise the concept of CbEWS in government policy-making, planning and program implementation:** Amendments to policy are a prerequisite for CbEWS practice to become effective. Governments need to commit to the development of community level warning systems, linked to district, zonal and regional Early Warning Systems. Technical 'facts and figures' need to be blended with traditional knowledge for a truly qualitative picture. Without these clear linkages CbEWS will support community-level decision-making, but will not have the wider application of which it is capable.

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Humanitarian Aid and Civil Protection

The project is funded by the European Commission Humanitarian Aid Department (ECHO)

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