

Community Based Early Warning System Establishment as climate change impact mitigation: Success story from Cordaid/ Farm Africa South omo risk management project in Ethiopia

I. Background

Ethiopia has a long recorded history of disasters of both natural and anthropogenic origin. The common hazards causing disasters include drought, epidemics, pestilence, floods, landslides, earthquakes, civil war, and mass displacement. Of all natural hazards, drought is the commonest disaster trigger accounting for over 98% of disaster fatalities. Drought has in most cases combined with anthropogenic hazards, mainly civil conflicts, to trigger famines (Hancock, 1985; Clay and Holcomb, 1986). Between 1970 and 1996 droughts and the resultant food shortage have affected millions and killed a significant number of people in Ethiopia. The 1984 - 85 famine, for example, is estimated to have claimed one million lives, and will go down in history as one of the greatest disasters on the African continent in the last century.

The frequency of nation wide droughts that cause food shortages increased from once in 10 years (in 1970s and 1980s) to once in about three years now. Further to the increase in frequency of occurrence, is the periodic augmentation of the geography and number of people affected.

Pastoral areas of the country also suffered from these recurring and self-perpetuating disasters over the last one century. In the past pastoralists were able to stand the effects of disaster using their own coping strategies that evolved out the ecological conditions of the environment they live in. For Pastoralists drought is not a rare event affecting their livelihoods; rather it is a condition to live with. In the past the Pastoralists had the capacity (as opposed to the present Vulnerability) to respond somewhat to threats of drought through their own traditional system of Natural resource management and drought mitigation practices that included traditional early warning system, land use planning, and resource management strategies. The gradual declining of assets, specifically social capital and social responsibility caused the erosion of traditional institutions, rights and roles for self-governance and decision-making, and the replacement of these institutions by State governed administrative systems made Pastoralists even more vulnerable to drought induced disaster.

In 1993 the Transitional Government of Ethiopia approved “The Directives for Disaster Prevention and Management.” The directive reflected a major departure in understanding and managing disasters. This includes the shift from free food aid, to linking relief and development with the aim of reducing vulnerability to future droughts. It also introduced a decentralized Disaster Management Structure (DPPC) as opposed to the previous centralized. The adoption of new policy direction has improved the country’s ability to prevent humanitarian crisis the likes of 1974 and 1984. However, it is not able to provide a comprehensive understanding of the nature of disaster and disaster management strategies that will suit the diverse ecological, economic as well socio- Cultural situation in the country. The country is suffering still from recurrent drought and other hazards. Moreover, despite the decentralization of disaster management proposed in the policy, key aspects of the policy such as the early warning system remained highly centralized and suffered from limited capacity at Woreda level.

To fill this gap in understanding, and design appropriate disaster management strategies, several actors working on the field of disaster management has been developing and testing different models of disaster management. One of these approaches is Drought Cycle Management (DCM) model which has been promoted by Cordaid and its partners as strategy fitting arid and semi-arid ecological settings.

Drought Cycle Management as an approach has brought a shift in the approach of disaster management. The shift include from the conventional top-down to bottom-up, from centralized to local diversity, from blue prints to a learning process. In all these shifts, the emphasis is that, community play a critical and decisive role in disaster management. Past disaster management efforts did not focus on community participation, nor were such efforts institutionalized. By contrast, DCM focuses on community participation as central to risk management, as it ensures local ownership; addresses local issues, and promotes social cohesion and mutual help. It facilitates and builds the capacity of communities to understand their situation, assess their assets and strengths, and identify and define priority projects that can address risks affecting their livelihood.

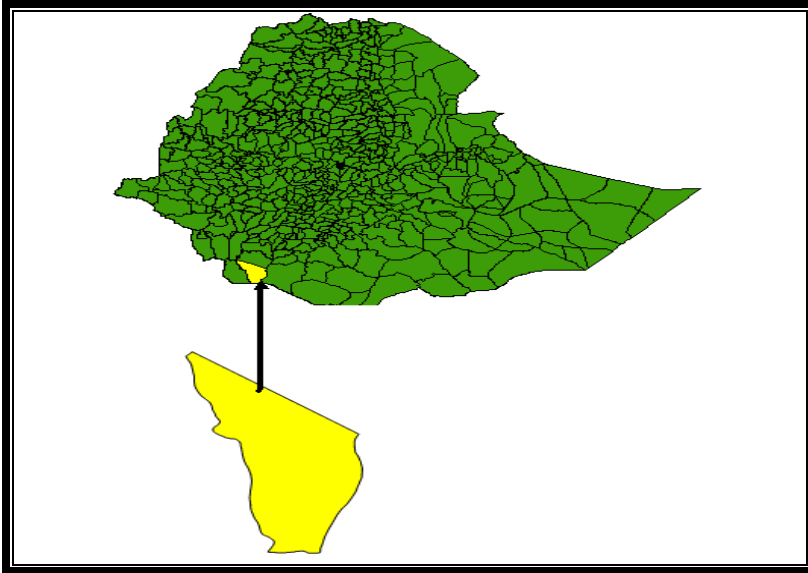
II. The Project, operational location and the drought induced disaster history

Farm Africa is implementing a project called “Managing risk through asset protection and enhancement project” in Hamar Woreda of South Omo zone, funded by CORDAID. The main purpose of the project is reducing household vulnerabilities to the effects of disaster through enhancing the capacity of the community and local institutions to effectively manage and utilize their resources.

The project has been implemented based on the concept of Drought Cycle Management approach which latter on shifted to Community Managed Disaster Risk Reduction (CMDRR) approaches. The establishment of the *Community based early warning system and make it operational* in the project area is one of the main activities of the project. By establishing community based early warning system it has been envisaged to improve disaster early warning, livelihood monitoring and as system to foster or trigger appropriate and timely disaster risk reduction action at different levels across the structure.

Hamar Woreda is one of six Woredas in south Omo zone in SNNPR. The Woreda capital Dimeka is located at about 593Km from the regional capital Awasa. The total area of the Woreda 713565 hectares and it is bordered by Bena Tsemay Woreda in the northeast, Borana zone (Oromia Region) to the north, Dhasenech Woreda in the southeast, and Salamago wereda in the west and Kenya in the south. The main rivers in the Woreda are Woito and Omo. However, these two rivers pass at the boundaries of the Woreda and are exploited very low. Keske is the dry sandy valley with some potential for flood diversion while Chew Bahir is marshy water body in which Woito River drains. Except these water sources, there are no perennial rivers that can be exploited.

Hammer Woreda is located in the lowest part of South Omo and part of the Great Rift Valley. The largest part of the Woreda is located in arid and semi arid climatic zones with low and erratic rainfall. The average rainfall in the Woreda is 764mm. The main rain season is from February to April. However, the rainfall amount varies from year to year.



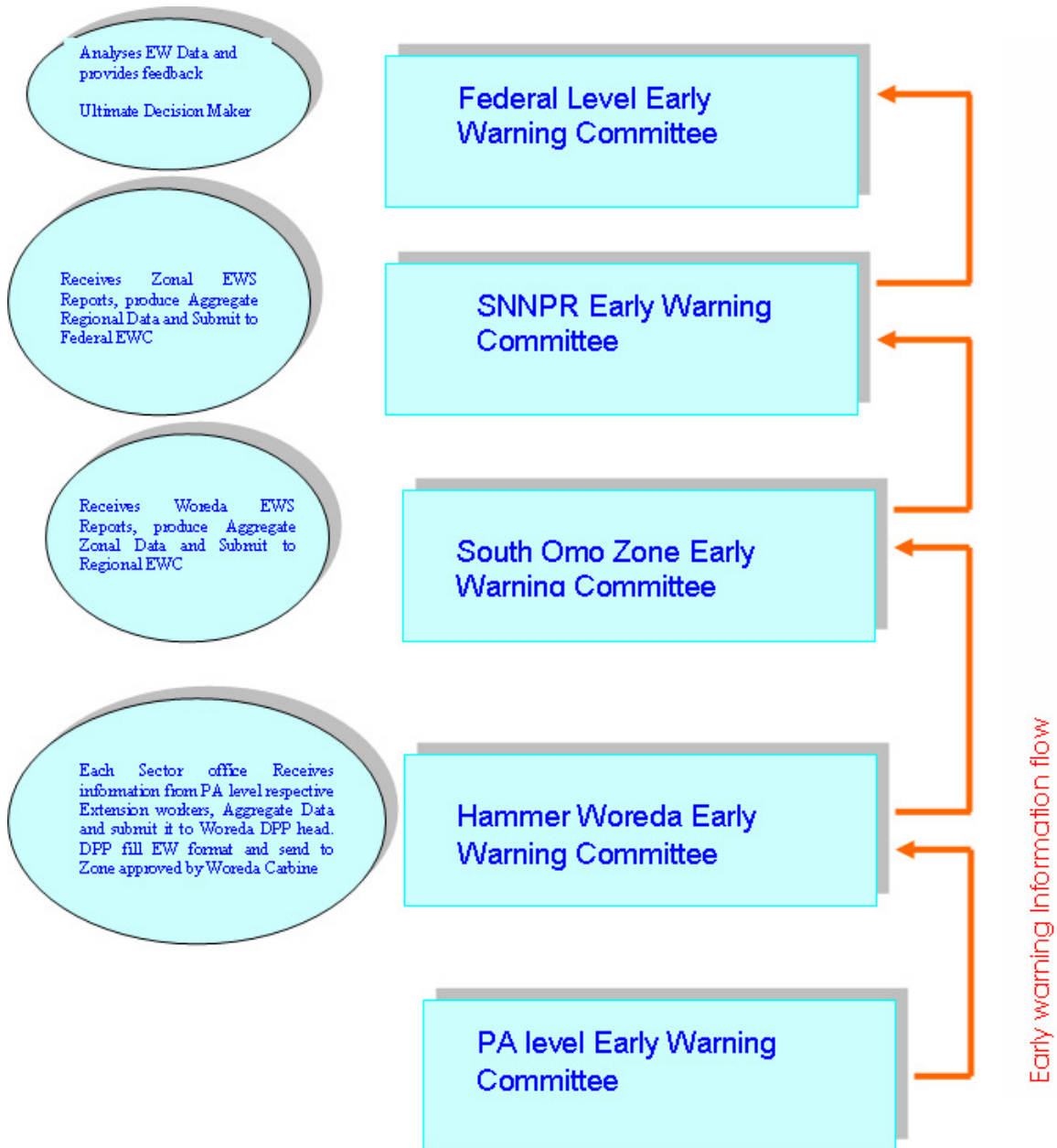
Community disaster risk analyses carried out by facilitation of farm Africa south omo risk management project staff have revealed that droughts, conflict, human and livestock disease outbreak, and flood to be most frequent hazards affecting the Woreda. Drought occurs due to shortage of rain Like most pastoral societies, Hammer people coping mechanisms which have been relied on: (1) herd mobility over vast areas in search of pasture and water; (2) Owning large numbers of diverse livestock species to spread the risk of disease and mortality; (3) Basing on well-defined social customs for resolving disputes; and (4) the redistribution of livestock assets from the rich to the poor segment of the community as share owning or gifts. Yet, through a combination of external and internal causes, the Hammer pastoralists today are caught in a downward spiral of increasing poverty, food insecurity, and escalating conflict. Increasing population, environmental degradation, seasonal water shortages, and conflicts combine to restrict herd mobility and reduce availability of seasonal pastures. Also, traditional risk management systems are strained by poor access to livestock markets and price information, and there are few alternative economic opportunities. Households are less able to recuperate from the increase in recurrent droughts, putting pastoralists' livelihood at risk.

III. The existing (conventional) early warning systems in Hammer Woreda

The institutional arrangement for the existing or traditional early warning system which comprises early warning data collection, analysis and reporting has been based on the

National Disaster Management Policy. The policy provides base for the establishment of Early Warning Units at Woreda, Zone, Regional, and at Federal levels.

Structure of Early Warning System and Flow of information from lowest Pastoral Association (PAs) to Federal Level



In Hamar Woreda, Woreda early warning committees' establishment and operation has been guided by the policy provision, the actual Disaster preparedness and Prevention Agency structure is established more recently as in all Woredas in Ethiopia. As result there is ample organizational and operational capacity limitation. At Woreda level only one staff member has been responsible for collecting and reporting early warning

information and coordination of relief activities. In addition, to human power shortage has limited material and technical capacities.

In general there are significant institutional gaps that affect the quality of the implementation of disaster management plans including the seasonal Situation Assessment. While there are attempts to develop Woreda capacities, such efforts tend to overlook the critical connection (i.e. direct relationship) between community level capacities to the Woreda level capacities as far as disaster management is concerned.

As a result, upward, lateral and downward communication and linkage system gaps do translate into poor performance of the preparedness and mitigation efforts.

To fill those gaps, Cordaid/FARM Africa project mainly focused on introducing community level process on how to bring different stakeholders for better coordination, and support linkages between official institutions and community preparedness efforts. This has been achieved by establishing community based early warning & disaster management committee(KEW & DMC) at grassroots or PA level and strengthening their linkage by building the capacity of existing woreda disaster management committee especially by the introduction of disaster risk management and contingency planning process. These processes further strengthen the linkages between community level disaster risk management action and contingency plans at Woreda level.

IV. The Process followed in establishing and make community based early warning system

- ❖ **Review of the Hammer Woreda early warning system:** The existing early warning system major potentials and gaps have been identified. These gaps includes shortages of human power, poor linkages with community or target groups, lack of regular communication system, limited coordination with line or sector departments, poor linkages with early warning system and response mechanism, etc has been found and discussed with stakeholders
- ❖ **Awareness creation, sanitization and capacity building:** Continues awareness creation, sensitization and training on the principles of CMDRR has been effected for 25 relevant woreda sector office officials and experts working on early warning system and community members at 10 PAs
- ❖ **Setting up community or Kebele level Early Warning & Disaster Management committee (KEW& DMC):** established by full participation of the target community which comprises community members from influential community traditional elders, traditional disaster event forecasters, women, youths, village and kebele administration representatives.

- ❖ **Community disaster risk analyses:** Training has been given on CMDRR philosophies, approaches, and process for the selected KEW&DMC members, which was followed by community disaster risk analyses which included identification & prioritization of the local hazard, community vulnerability and existing capacity. The process also included identification and documentation of indigenous coping mechanisms and possible mitigation and preparedness options to reduce the effects of the disaster risks in each of the project kebeles.
- ❖ **Community based early warning indicators has been identified:** Community and the selected Kebele early warning and disaster management committee (KEW & DMC) identified locally understandable and easily communicable indicators for each identified hazards. The symbolic early warning and disaster monitoring format developed by the KEW&DMC for the regular (monthly basis) monitoring of the situation based on the identified hazard indicators for timely warning of the community and other stakeholders including the WEW&DMC and Supporting organizations.
- ❖ **Consensus on community early warning indicators and their reporting with government early warning system:** The identified community level early warning indicators have been communicated to the government early warning system and full agreement reached on the indicators and their interpretation and reporting with the government early warning system.



Photo-Kebele early warning and disaster management committee member depicting community early warning format to the stakeholders

V. Major Outcome or success recorded from the community based early warning system establishment and operation

- ❖ **Better disaster hazard monitoring, communication and timely response mechanism:** Community in hammer Woreda are currently in better disaster risk reduction stage due to the established community based early warning system and effective linkages with government early warning system. Communities were able to timely identify and communicate the prevalence of sheep and goat disease outbreak, and drought condition of the year 2008. Due to the established early warning system in hammer, the community has received timely emergency responses for the above two hazards and flooding hazard in one of the PAs from local government.
- ❖ **Improved capacity at government-Woreda level and contributed for initiation of process to make government accountable:** The Hammer Woreda early warning system major gaps related with poor linkages with community preparedness and response, communication gaps and limited coordination with stakeholders, has been significantly improved. The Cordaid/Farm Africa project has established early warning system administered by community members and established direct reporting mechanism that linked community hazard monitoring information to government early warning system, thereby contributed for the initiation of local level accountable system where local community members claim their rights for immediate assistance whenever, disaster situation anticipated.
- ❖ **Initiated local contingency budgeting process as primary response mechanism to deal with climate change induced hazards:** In addition to creating timely or rapid response mechanism, the people centered early warning system of Hammer Woreda started to initiate and mobilize local level financial resource contributed by local community member's voluntarily. Currently, agreement has been reached in most of the project areas for community contribution, which has been 100 birr (9 USD equivalent) to be contributed from each household and reserved as local community response contingency budget. Thus, the initiation of community level contingency budgeting as primary response mechanism from the local community clearly signals the community readiness capacity building, where the local community taking steps from reaction to proactive actions in reducing the risk of disaster.

The above emerging trends in attitude of the community to be more proactive to hazard induced disaster risk reduction initiatives could be used as bases for fostering the development of culture of resilience. The project laid down important process where community taking active agents in monitoring an advent of disaster situation and taking steps to reduce or deal with the impacts of hazards induced by climate change.

Thus, Cordaid/ Farm Africa project through people centered early warning system, initiated local or community level processes and effectively linking with government structure, created or contributed for processes, mechanism and structures where community could stage as mitigation or adaptation actions to climate change induced

hazards such as drought, disease which are assumed to be more frequent in their prevalence in the hammer area in the coming periods than past periods.