

Maintaining GOAL's capacity to support surveillance in Ethiopia



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Ethiopia has suffered from numerous natural and man-made emergencies and continues to be vulnerable to rapid and slow onset emergencies. Since the major famine in 1984/85, considerable efforts have been made to install a credible and effective early warning system (EWS) as part of emergency preparedness to enable a timely disaster response. In line with improvements internationally in early warning and emergency assessment tools, the government of Ethiopia has increased its drive to develop a more effective EWS. It has been supported by many international agencies in this endeavour who, in turn, have made use of new methods such as the Household Economy Approach (HEA) and, more recently, the Integrated Humanitarian Phase Classification (IPC) system (introduced by USAID and FAO respectively). A new EWS has been established in Ethiopia to classify woredas (districts) according to the extent of food insecurity using 'hotspot' monitoring (see articles on DRMSS and on ENCU in this issue of Field Exchange).

At the same time, the government's focus on managing emergencies has also changed from the traditional disaster management approach to a more advanced and scientific 'disaster risk management' (DRM) approach. This emphasises 'domestic knowledge and community capacity' for prevention and mitigation of an impending emergency. The DRM approach has enabled communities to play a leading role in related activities through the application of indigenous early warning knowledge. Thus, communities have a chance to share local solutions for local problems. Such indigenous practices are taken account of in the EWS, which monitors any changes to this normal behaviour and indicates when emergency interventions may be needed.



MUAC measurement by GOAL
Ethiopia Nutrition Survey Team,
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Background to GOAL

Like many international non-governmental organisations (INGOs), GOAL Ethiopia started nutrition programming in 1984 in response to the large scale famine in the northern areas of the country. In 2003, following a large-scale food security crisis, GOAL Ethiopia expanded its operational presence to two regions, namely SNNPR (Southern National and Nationalities Peoples Region) and Oromia Region. This operation supported eight large woredas to implement therapeutic and supplementary feeding programmes for under fives and pregnant and lactating mothers. GOAL also started working on recovery and development programmes in the areas of livelihoods, child survival and development and in some areas, WASH (water, sanitation and hygiene) activities are being implemented.

GOAL Ethiopia aims to respond to any emergency in Ethiopia (within its operational capacity) in a timely manner through its HRP (Humanitarian Response Programme), which has three arms: an Early Warning Department, a Survey and Assessment Department and an Operational Response Unit.

Process and outcome indicators used in the EWS

The Government collects two types of early warning indicators to identify hotspot woredas: process indicators and outcome indicators. Each hotspot woreda is divided into three types, priority 1, 2 and 3 relating to the severity of the situation. A priority 1 woreda is the most severely affected, needing urgent humanitarian intervention whilst priority 2 and 3 woredas, though needing assistance, do not require the scale of response needed in a priority 1 woreda. Typically, in Priority 2 woredas, strengthening existing aid interventions and close follow up is recommended whereas in priority 3 woredas, close follow up on the food security situation and other related aggravating factors may be needed.

At the time of writing this article (Sept 2010), there were 335 hotspot woredas flagged in Ethiopia. This represents a significant number of potentially needy woredas and highlights the ongoing need for an effective EWS and response capacity.

Government-led multi-agency teams go to pre-selected food insecure areas in each region to assess potential hotspot woredas; assessment timing is informed by seasonality. The criteria used during the assessment includes levels of acute malnutrition, food security situation, therapeutic feeding programme admissions, stress conditions and levels of migration among others (see Table 1). The classification process is carried out at the regional and reviewed at federal level. Where necessary, overall prioritisation of the woredas is reviewed. For example, on the first assessment or hotspot classification which categorises a woreda as priority 1, the situation may have improved to such an extent that it can be re-classified as priority 2 or 3 according to the multi-agency assessment of the indicators.

Table 1: Process indicators for hotspot monitoring

Weather condition such as onset of rain, cessation time, number days with dry spells, occurrence of hailstorm, flood situation.

Crop production and livestock condition such as dietary diversification, availability of staple foods, land preparation, land cultivated and covered by seed, condition of harvest, agricultural inputs supply, herd size, pasture status, milk production/head/day.

Market price such as major food crops price, livestock price, source of supply, terms of trade between livestock (goat) and major food crop (maize), crop price during harvest/dry season, price of livestock during harvesting/dry season.

Socio-economic conditions such as migration, wages per day, other sources of income, coping capacity of the community.

Examples of process indicators for estimating levels of food insecurity are sales of assets, unusual livestock death, increased school drop-out, consumption of wild foods, increased begging, increased request for external assistance, and reduction of meals eaten daily. Most stress indicators are showing how a particular hazard affects the population and the strategies they deploy to survive. Table 2 provides an overview of how these process indicators are classified according to a scale of 1-5, with 5 being the worst level of food insecurity and livelihood erosion. Table 3 describes the indicators and associated livelihood impact.¹

Table 2: Process indicators and associated severity scale

Indicator measures/assessed	Scale of Measurement				
	Class 1	Class 2	Class 3	Class 4	Class 5
Livestock death	None	>0- ?2% of herds	>2 - ?10% of herds	>10 - ?25% of herds	>25% of herds
School drop-out	?5% of students	>5 - ?10% of students	>10 - ?25% of students	>25 - ?50% of students	>50% of students
Sales of productive assets	None	Moderate	High	Very high	Exhausted
Increased sales of firewood and charcoal	Normal	Moderate	High	Very high	Very high
Consumption of seeds	No	No	No	Yes	Yes
Consumption of health threatening foods	None	Sometimes	Few days	Most days	All days
Increased begging	No	No	No	Yes	Yes
Increased request for external assistance	None	?5% of households	>5% - ?10% of households	>10 - ?20% of households	>20% of households
Switching in livelihood protection expenditure	None	Normal	Few items switched	Some items switched	Most items switched
Reduction of meals	?5% reduction	>5% - ?15% reduction	>15% - ?30% reduction	>30% - ?50% reduction	>50% reduction
HH level destocking (commercial, slaughtering)	None	Normal	High	Very high	Massive

Table 3: Food insecurity indicator description and livelihood impact

Indicators description Impact on livelihoods

Highly Above Normal (HAN) (1). Indicator is above average or conditions are improving (a very high positive change, above average) ($\geq 25\%$)

Above Normal (AN) (2). Indicator is above average or conditions are improving (a positive change above average) (>10 to $<25\%$)

Normal (N) (3). The process indicator is just about average (a small change below average) ($</>10\%$)

Below Normal (4). Process indicator shows a huge negative change from average (>25 / $<50\%$)

Failure/ Critical (5). Process indicator show a strong major likely impact on livelihoods ($>50\%$)

Large Improvement - (*Risk: Minimal*). Occurrence of, or likely predicted event improving livelihoods. Stress Indicators: no impact, very huge, large positive change from normal.

Improving - (*Moderate Risk: Hazard*). Occurrence of or likely predicted event improving livelihoods. Stress Indicators: no impact, large positive change from normal (small change).

Improving or Small Change. Normal or very small change from normal conditions prevail. Process Indicators: small negative change from normal (moderate).

Severe. Stress Indicator indicates very high abnormal conditions stressing livelihoods, with high vulnerability. Stress Indicators: large and compounding negative changes.

Very Severe: Stress indicator show alarming proportions and leading to immediate impact on livelihoods stress, with high vulnerability. Stress Indicators: have immediate, large and compounding negative changes.

Outcome indicators reflect the magnitude of the shock on those affected and are normally reflected through the deterioration of health and nutritional statuses of the affected community. The health and nutrition thresholds applied to for the indicators to define the extent of an emergency are outlined in Table 4.

Table: 4 Outcome indicators: health and nutrition thresholds by severity scale

Indicator measures/assessed	Scale of Measurement			
	Class 1	Class 2	Class 3	Class 4
Global acute malnutrition (GAM) prevalence	$<3\%$ WFH* <-2 z-score	$3\% - <10\%$ WFH <-2 z-score	$10\% - 15\%$ WFH <-2 z-score	$>15\%$ (WFH <-2 z-score)
Migration	Normal	Spread	Concentrated	Distress
Displacement	None	Spread	Concentrated	Distress
Morbidity	Normal	Serious	Severe	Critical
Crude Mortality	<0.5 /10000/day	$0.5 - <1$ /10000/day	$1 - 2$ /10000/day	>2 /10000/day

In most cases, the presence of disease outbreaks, food insecurity and high rate of acute malnutrition are the main driving force for implementing an assessment. Typically, the Early Warning Department is alerted by the health sector when there is an unusual increase in acute malnutrition cases attending health facilities. Based on the information received, standardised nutrition surveys are conducted to assess the situation and make recommendations for possible nutrition intervention.

GOAL's Support to the EWS

GOAL's Early Warning Department collects EW information through field based assessments undertaken by GOAL staff who work through the Government's rural health extension workers (HEWs) and in response to rapid assessments undertaken by the Government's ENCU (Emergency Nutrition Coordination Unit) that flag 'hotspots'.

The GOAL EW officers travel extensively at woreda level, collecting and screening early warning indicators and/or reports from the field. In all areas, including GOAL's RDP (Rural Development Programme), GOAL uses routine information collection and triangulates it with Government and UN agency assessment reports. If information concurrently indicates the deterioration of a situation to a Priority 1 or Priority 2 status, upon request by the ENCU, a GOAL nutrition survey and assessment team is deployed to verify the severity of the situation. This involves a standardised nutrition survey using the SMART (standard measurement and assessment research tool) methodology.

In addition, each month GOAL EWS focal persons at regional level monitor and collect qualitative data from systematically selected woredas and kebeles (a group of villages) using key informants. The key informants are made up of 12-20 people who represent the community and include woman, religious leaders', youth and aged people with indigenous knowledge. They are involved in group discussions undertaken every month at which they discuss in depth any forewarning signs of changes in social and economic trends in the village, disease outbreaks, increases in cases of acute malnutrition, etc. An example of the benefits of capturing indigenous early warning information is described in the case study in Box 1.

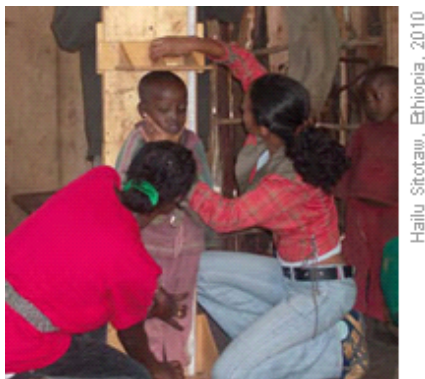
Box 1: Micro credit support case studies

A 65 year old man was noted using a plough and sowing seeds one month earlier than normal in a village. At that time, the GOAL EW officers were collecting the EWS data from the village and asked the man *"why are you ploughing and sowing unusually early in the dry season when the rains are not due for another month?"* The old man replied, *"you know my son, I am an old person and have grown up watching the 'signs' of 'good' and 'bad' season in my village for a long time. I follow the wind direction at dry season. If it blows from the west-east direction, then I know the coming rainfall will start early. When it blows from the east-west, the rain will be late. This is why I have started to plough and sow maize seed and wait the onset of early shower rain and use this opportunity to secure my food needs"*. To verify this indigenous knowledge, the GOAL EWS officer went back one month later to monitor the status of the area ploughed and witnessed that this was the only farm with green maize seedlings. Others had not started ploughing their land and missed the good opportunity offered by the earlier 'shower' rains.

Because of this evidence, the trend to plant earlier has expanded to other villages with farmers practicing this 'indigenous early warning information and use the 'early' shower rain to grow a fast growing local maize seed called 'yanase'. They also sow hybrid maize seed in normal rainfall time in the month of March.

After the monthly information is analyzed by the GOAL regional focal personnel, a report is submitted to the GOAL Addis Ababa office where quality assurance checks are in place. The data and report is then shared with the Federal level along with other similar partners during the monthly national EW meetings. The Federal level triangulates this information and finally shares it with the ENCU for action, if needed. On average, the whole process takes one month from information collection up to sharing the findings to partners and other government offices.

GOAL nutrition assessment capacity



Height measurement by GOAL
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GOAL staff attends the EW coordination meetings at federal level during which the list of hotspot woredas is issued. Agreement is then reached on the agencies responsible for nutrition assessment of these woredas, with the aim of verifying whether the EWS data is reliable in terms of detecting increases in prevalence's of global and severe acute malnutrition (GAM and SAM).

GOAL Ethiopia maintains 21 staff at any one time to support nutrition surveys. Each survey costs approximately USD\$ 8,500, which includes vehicle hire to carry out data gathering and data analysis and dissemination. GOAL capacity in this area is funded by the US Office for Disaster Assistance (OFDA) and ECHO (European Commission Humanitarian Office). In any month, GOAL has capacity to lead on up three nutrition surveys depending on the context. In 2009, a total of nine nutrition surveys were carried out in the country, of which four were undertaken by GOAL in hotspot woredas. Three of these surveys showed levels of acute malnutrition to be above the levels defined as an emergency in Ethiopia. Between January to June 2010, 12 nutrition surveys have been carried out by GOAL Ethiopia of which three were conducted in priority 1 hotspot woredas.

Since GOAL is operational in many areas in Ethiopia, it is often necessary to do base line survey, follow up survey and end line survey at different times. Moreover, GOAL is often approached by the Federal ENCU and Federal Disaster risk management and food security sector (DRMFSS) to do nutrition survey for partners and for regional ENCU consumption. To be able to conduct all of these surveys, GOAL Ethiopia found it necessary to increase the quality and quantity of the survey team. GOAL plans to increase its capacity to carry out four nutrition surveys in any one month by increasing the nutrition team to 28.

As well as collecting mortality and anthropometric data during the nutrition surveys, data on health behaviour, recent sickness, child care, market prices, migration and food security are gathered. This data is used to guide programmatic intervention and/or to provide the relevant government entities with qualitative information on food security and its prospect.

In lieu of the assessment findings and subsequent recommendations, if GOAL has the capacity and the authorisation to intervene in an unsupported woreda, it will do so in line with recommendations made. Over the last 63 months (from August 2005 to June 2010), GOAL Ethiopia has conducted 60 nutrition surveys (a small number of which were on behalf of other NGOs in collaboration with the ENCU) and has intervened in approximately 95% of woreda's with an identified need for management of acute malnutrition.

Focus on Capacity Development GOAL nutrition survey staff always carries out surveys with government staff at woreda and regional levels and focus on building government capacity in planning and conducting surveys, analysing data and report writing. Moreover, as a part of sustainable capacity building, one person from the Government Regional Health Bureau takes an active role in analysing and writing the draft survey report.

GOAL also recognises the significance of HEWs in collecting locally pertinent food security and health/nutrition information on a daily basis, which provides information for the government when considering some form of emergency intervention. In recognition of this, GOAL provides a two-day standardised nutrition survey training for HEW's followed by a practical session before the commencement of the actual data collection. This training is provided for any woreda where a nutrition survey is going to be conducted.

Since food insecurity has a cyclical nature in Ethiopia, the numbers of hotspot woredas varies and the government demand for conducting nutrition surveys will also vary. GOAL has established a good reputation over time within government for carrying out reliable and high quality surveys and therefore, demand for GOAL's experience in this area is high. However, there is a limit to the direct support that GOAL can or should undertake in this regard. It is particularly important that regional capacity is further developed to meet the demand for nutrition surveys and EWS assessments over the long term. GOAL is committed to focusing on capacity development in the ongoing programme of work in Ethiopia.

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¹Source of Tables 1-4: Guidelines for Analysis and Identification of Areas of Concern (Hot Spots) for Effective Food Security Monitoring and Programme Decision Making, the Early Warning Working Group (EWWG) chaired by the Disaster Risk management and Food Security Sector (DRMFSS) - Ministry of Agriculture and Rural Development (MoARD) - Federal democratic Republic of Ethiopia, September 2009.

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