

Pastoralist Forum Ethiopia

Drought coping mechanisms among the pastoral Afar community

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Drought is not a new phenomenon for pastoral communities; rather it is a central fact of their lifestyle and livelihood. The purpose of this article is merely to share Afar pastoralists' indigenous knowledge on coping drought incidences, which they have accumulated for centuries, to pastoral actors working on disaster cycle management and related issues. The sources of information used to develop this article range from a research dissertation to direct consultation made with the pastoralists, especially with pastoralists of Dubti Woreda of Afar Region.

Causes and impacts of drought on pastoral lives and livelihoods

There are different definitions regarding Drought. Most authors are of the opinion that *Drought is a period of insufficient rainfall resulting in serious damage to crops and other vegetation. It can neither be accurately defined in terms of millimeter (mm) of rainfall nor by the number of days without rain*¹. Drought according to the world Meteorology organization is a prolonged absence or poor distribution of precipitation and, a period of abnormally dry weather sufficiently prolonged for the lack of precipitation to cause a serious hydrological imbalance.

Accordingly, three different types of Drought have been identified. These are: **Agricultural drought**: when rainfall happens to be below the normal to sustain the required soil moisture for crop growth and development of different growth stages of crops, hence causing total loss of crop or yield reduction; **Hydrological drought**: when a prolonged absence of rainfall causes the lowering of ground water table, reduction or total drying of stream flow, depletion of soil moisture and disruption of water supply system; and/or, **Meteorological drought**: when rainfall happens to be below normal for a specified period over a specific region.

When a drought occurs, it substantially increases livestock mortality, aggravates the problem of pastoralists by a condition known as *Price-Scissors effect*, where the price of grain increases while that of livestock decreases dramatically. At the socio-economic level, drought is a function of variables that highly affect the mix of availability of grazing and water resources. A one year or two years failure of rains may result in drought, depending on the resource base of the pastoral system. There is a growing consensus among many scholars that droughts do not happen suddenly, but rather are accumulation of events, policy measures and underlying processes that progressively erode the capacity of the pastoralists to cope.

Drought coping mechanisms among the Afar pastoralists

The Afar pastoralist groups have experienced droughts and other shocks like flood since time immemorial. Recently, the severity of drought has increased its magnitude that it is now becoming difficult for the pastoralists to reconstitute sufficient herd size to help them lead a semi nomadic way of life; and the twin dragons, drought and famine, are giving much pain to the pastoral societies as a whole.

Through time, Afar pastoralists have developed their own coping strategies that can greatly contribute to managing droughts. These drought coping mechanisms vary from one pastoral group to another depending on the type of drought experienced, the type of geographical location, and the resources available to the pastoralists. Some of these strategies are described as follows.

¹ Ghosh, 2001. Forecasting Drought in Ethiopia. Bomikhal, Bhubanswar. India

Pastoral Mobility: As a natural response to range heterogeneity, pastoralists move their herds to environments and benefit the best out of them at the time of the visit and manage drought effectively. Mobility helps pastoralists to make the best advantage of localized rainfall, avoiding the risk of depending on benefits of a confined area. It is a function of many factors like the type of relations that exist between local groups which live in or around drought refugee areas, length of distance from original area of residence, and the like.

Their movements are systematic and calculated, unlike what many people perceive of. They are not wanderers who move around from places to places, but rather move to areas they are well acquainted or have sufficient information. There are reasons attributed for the mobility pattern. To start with, they do not move all the time, but between “*Karma*” and “*Sugum*” seasons, where the availability of water and fodder seems to decrease in the place they stay. During the *karima* season, Afar pastoralists move to areas of salty water, in the lowland and during the *Hagay* season, they move to areas adjacent to the highlands and where water is available. In addition, pastoralists move from places to places mainly because of the overgrazed area has to recover. By the time they return to the place, it will be ready for another round of grazing.

Secondly, pastoralists prefer to move to areas in search of not only the availability of fodder, but also in search of good quality fodder. A special grass species called “*Moussa*” is found along the escarpment of the highlands. As a result, Afar pastoralists move to areas where *Moussa* grows as it has a good potential for milk production. The third rationale of mobility by the pastoralists is that staying long in a given area may help create parasites from animals’ dung and attacks their livestock.

Herd Diversification: Nowadays, Afar pastoralists are changing their livestock species composition from more of grazers (cattle and sheep) to that of browsers (camels and goats), as the latter ones can easily adapt themselves to the changing vegetation cover and resist drought. Moreover, they are now maintaining as much species as they can in order to reduce the risk they face in any natural as well as man made shocks. Another rationale used by them is that a mixed herd can make the best use of the heterogeneous nature of eco systems than a single or two species herd.

Herd splitting: In the Afar area, pastoralists divide their herds in to two and send those matured ones and bulls to distant places while keeping lactating and heifers around their “*Burra*” (home). These are called “*homma*” herds. In some cases, animals may be herded in some other areas to reduce not only droughts but also localized raids and diseases that usually accompany droughts.

Dispersal of resources from relatives: As an indication of a typical communal society, the Afar highly depend on the clan or “*mela*” for any kind of assistance. Drought is no exception: These include herd and family splitting, temporary migration, transfer of animals within social networks on which individuals have legitimate claims, resource sharing and the like.

Income generation from non-pastoral activities: These include subsidiary activities that generate money for the pastoralists as additional revenue during normal years and to purchase food grains in times of drought. Such activities may range from daily urban engagement, employment in commercial farming undertaken around the vicinity of the pastoralists, engagement in charcoal trading and the like. Afar pastoralists along the Awash basin are now developing a culture of being hired in the large-scale state and private farms.

Change of composition of diet: During acute drought period, Afar pastoralists are forced to change their normal food intake and composition so that they can easily adapt to the type of vegetation available. Adjustment mainly refers to reduction of the amount of food intake during

the day from three times to once, giving priority to children and the elderly, and shifting from milk and milk products to more of cereals. The following table depicts the diet composition of Afar pastoral community around *Kilbet* (what is known as Zone 2 administrative area) during normal and drought season.

Year	Number of meals per day	Meal composition
Good	Three times a day: Breakfast with milk Mid day (for children) Evening <i>Burkuta</i> or <i>Genfo</i> with milk Meat for Muslim holidays	<i>Burkuta</i> (bread from wheat, sorghum or maize flour) <i>Wot</i> (water, oil, dried pepper, pea or bean flour mixed and cooked together). More use of wheat (most preferred and expensive flour)
Bad	Once a day <i>Burkuta</i> with <i>wot</i> or <i>Genfo</i> Water, No milk, No meat Wild food (<i>Gersa</i>)	Wild food (fruits) during dry season May-July (<i>Gersa</i> & <i>Medera</i>) Use of low price flour (sorghum, maize, wheat depending on market prices)