PARTICIPATORY RISK ANALYSIS & INTEGRATED APPROACHES TO INCREASING RESILIENCE OF PASTORAL COMMUNITIES IN NORTHERN KENYA
In response to the 2010 devastating earthquake, Action Contre la Faim implemented a range of emergency activities, in Port-au-Prince and Gonaïves, including a pilot Fresh Food Vouchers (FFV) project to complement other food assistance and nutrition interventions. Building on lessons learnt, the pilot was then adapted and replicated in Gonaïves and again in Port au Prince in 2011 in the frame of a safety net approach. The latter programme aims at restoring food security for vulnerable households and to improve their nutritional situation. By ensuring access to fresh and staple food through the local market, ACF intends to support the local economy, to strengthen the beneficiaries’ resilience and to improve the households’ access to a diversified diet.

Households and livelihoods in Merti and Garbatulla Districts of Kenya are highly vulnerable and threatened by an increasing frequency of cyclical, seasonal droughts in the Arid and Semi-Arid Lands (ASALs) of Kenya. Pastoral communities are at risk with the gradual erosion of community resilience and traditional coping strategies by successive shocks and limited development investments.

Action Against Hunger adopted an integrated approach for a drought response program that built the drought preparedness capacity of the communities and mobilized them to collectively address common risks and pursue risk reduction measures.
Vulnerability Context

Background

Extensive livestock keeping or pastoralism is an efficient and productive livelihood system that has been developed and refined to enable pastoralist households to survive and thrive in arid and semi-arid rangelands.

However, cyclical droughts in the Arid and Semi-Arid Lands (ASALs) of Kenya continue to threaten mainly livestock-based livelihoods, increasing household vulnerability and threatening livelihood resiliency.

The context is characterized by extensive livestock-keeping (e.g. goats, sheep, camels and cattle), a livelihood system that is increasingly under threat and at risk of dependency on aid as drought limits viable livelihood options outside livestock.

In Kenya, livestock production in the ASALs accounts for nearly 90% of the livelihood base and nearly 95% of household incomes (Kenya Ministry of Agriculture, 2008).

With an estimated livestock resource base of 60 million animals (AU-IBAR Report, 2009), the livestock sector in Kenya contributes 12% of the total GDP and 42% of the agricultural GDP (SNV, 2010).

Despite their contribution to the local and national economy, pastoralists in the ASALs of Kenya have been systematically marginalized for decades. In recent years, they have been faced with an increasing frequency of consecutive seasonal droughts.

Given their dependence on livestock, these drought incidents pose a serious risk for the pastoral communities. The ASALs were significantly affected in 2011 by a drought which developed into a crisis due to poor rains as well as the gradual erosion of community resilience and traditional coping strategies by successive shocks and limited development investments.

The 2005/06 drought affected four million people in the ASALs and an estimated 50-60% of livestock (e.g. goats, sheep, camels and cattle) died.

Many households and communities had only started to recover when 2007/2008 brought triple shocks of post-election violence, high food and fuel prices and El Niño related flooding.

A post-disaster needs assessment identified the entire period from 2008 to 2011 as one continuous drought, causing the loss of over USD805 million worth of physical and durable assets.¹
Programme Overview and Rationale

In the 2011-2013 drought response in North-Eastern Kenya, Action Against Hunger (ACF) intervened in Merti and Garbatulla Districts as part of the USAID-supported Arid and Marginal Lands Recovery Consortium (ARC). More than 85% of these districts were affected by the drought that saw up to 70% of livestock lost due to worsening pasture and grazing conditions. Livestock migration from Merti and Garbatulla intensified due to reduced rainfall, while cases of insecurity and conflict rose.

ACF adopted an integrated approach for the drought response program which focused on improving drought preparedness capacities of the communities in the two districts. It was designed for communities to serve as the key actors, mobilizing them to collectively address common risks and pursue risk reduction measures.

Enhancing Community Resilience

ACF supported communities to analyze their risks and implement practical interventions to increase their resilience. Communities identified three key areas of support that would mitigate total loss of livestock herds and livelihoods:

1. **Rangeland and pasture regeneration** along strategic grazing corridors in the districts,
2. Construction and maintenance of **water harvesting structures**, and
3. **Support to livestock marketing initiatives** to facilitate herd control based on anticipated changes in climatic conditions.

Rangeland Regeneration

Rangeland degradation is a major problem facing pastoralists in Northern Kenya, in addition to continuous bush encroachment that reduces available pasture size, rangeland productivity and pasture quality. ACF supported local communities in conducting a resource mapping and stakeholder analysis in the rangelands of Garbatulla and Merti. Migratory corridors were drawn with dry and wet season grazing areas mapped out within the livestock movement corridors. Formal and informal groups active in rangeland resource management were also mapped.

ACF supported revitalization of community rangeland management institutions with indigenous knowledge systems, focusing on protection of hotspots through technology transfer to local communities using experiential learning in order to strengthen local capacity in dry season pastureland management along migratory corridors. Focus group discussions determined strengths and capacities, skills and knowledge of the communities with regard to natural resource management. Cash based interventions protected identified hotspots (dry season graze lands) mainly through pasture regeneration and stimulated community participation while improving access to food.

Pasture regeneration activities were implemented along with training of rangeland management committees on land use and implementation of appropriate grazing management regimes in order to protect management of regenerated pastures. Rangeland management plans were drawn specifying the roles and responsibilities of rangeland management institutions and providing information on the condition of resources and processes to be followed, including monitoring and evaluation of adaptive management. Today, restoration of pastureland is one of the principle drought mitigation measures being implemented by communities with additional support from the county government of Isiolo. A total of 9 reserve pastures measuring 12ha were regenerated along migratory routes between Garbatulla and Merti District, supporting at least 23,018 livestock.

The cash based pasture regeneration exercise promoted information flow and cascading of the roles and responsibilities of Rangeland Management Committees from location to village level, essential for mitigating consequences of poor rangeland management. Simple decision support tools and local level monitoring mechanisms were developed in order to inform decision making, trigger early warning for livestock marketing and inform herd control decisions especially when pasture availability is inadequate to carry herds over to the next season. The main early warning indicators used for development...
of support tools to monitor pasture include changes in vegetative cover through visual biomass estimates, and changes in water cycle and recharge levels.

An analysis of potential synergies between various land use strategies in Merti and Garbatulla was conducted to improve productivity. This targeted the dry season grazing blocks which were mapped out to guide implementation of integrated water resource management interventions and exploit livestock marketing potential.

**Water Harvesting for Livestock**

ACF rolled out a Cash for Work (CFW) program that supported rehabilitation and construction of livestock water points to reduce livestock and human deaths at times of drought. The CFW program ensured participation of both men and women to engage in menial unskilled work for cash in order to support food access and income generation at a critical time when the communities were highly vulnerable during the drought period.

An estimated 186,440 livestock and 40,845 livestock owners benefited from rehabilitated or newly constructed water sources which include water pans, shallow wells, borehole, water storage tanks and access points (livestock water troughs), while 1,359 people participated in CFW water point rehabilitation and construction activities. The CFW program assisted households to meet immediate needs while the rehabilitated and constructed water points ensured retention of milking herds near the settlement to provide required milk for the children and surplus taken to market for income.

The CFW approach made it possible to desilt more earth-dams and created employment opportunities for the unemployed and pastoral dropouts. As a result of cash inflows from CFW activities, purchasing power increased and markets were stimulated. An overwhelming number of participants in focus group discussions asserted that in the unfortunate event of another drought, they would suffer less because the implementation of activities under the economic asset development component of the ARC project would reduce the risks and mitigate negative effects.

“We have no fear of the threat of drought as we have learned to preserve and store pasture, grow and preserve food,” responded a participant during a focus group discussion session in Garbatulla.  

**Improving Livestock Markets**

There are significant barriers to improving household income due to climatic conditions, disabling government policies, poor services, and low terms of trade between livestock products and staple foods in the ASALs. Despite these challenges, a significant proportion of the population retains profitable livestock assets. Pastoral communities face severe challenges in marketing their livestock including long distances and poor roads in reaching market infrastructure, lack of organized market days, limited connections between traders and livestock owners, and poor market awareness.

ACF’s livestock marketing initiatives sought to address these issues through a set of components that together contributed to greater sustainability and efficiency of the market system. Assessment of livestock markets in the Garbatulla district in 2010 attributed the cause of dilapidation and abandonment of livestock markets to poor placement decisions, weak and corrupt maintenance revenue collection systems, lack of ownership and insecurity.

With livestock migratory routes already mapped out by rangeland management committees, ACF supported participatory decision-making on appropriate livestock market locations within the migratory routes with a view to rehabilitating best bet market yards that would support strategic destocking of household herds and opening up the location to other districts which would assure the pastoralists of income in the face of drought.
Site selection was done while ensuring that there was adequate demand from both traders and producers. Critical location factors for producers that influenced decision making on market rehabilitation included: the market being within a reasonable trekking distance, the site being accessible without infringing on other rangelands, and accessibility to nearby livestock water sources.

In addition, market placement decision making took into account the locations of other markets to ensure they do not undermine each other. Two livestock markets were rehabilitated in Garbatulla and equipped with the necessary infrastructure that included a sales yard, loading ramp, sanitation facilities, livestock water sources, shading/resting area for livestock and crushes for isolating and examining livestock.

To sustain efficient management of the rehabilitated livestock markets, ACF facilitated the creation of Livestock Market Management Committees (LMMC) comprised of local community representatives responsible for managing the markets. Inclusive representation in these committees was guaranteed by representation from key stakeholders drawn from livestock traders, community based animal health workers, peace committee members, environmental management committees, registered women groups and livestock producers.

The LMMCs were responsible for setting livestock market days, promoting market awareness (destocking campaigns in the face of droughts), recording livestock sales data, participating in resolution of conflicts and overseeing maintenance of livestock market infrastructure.

In June 2012, ACF partnered with Food for the Hungry (FH) Kenya and SNV Netherlands to lobby for livestock market co-management model in which local communities share roles and revenue collected with county council. The model, adopted in Isiolo County, fostered sustainability and efficiency through community ownership and re-investment of funds into improving market infrastructure and support to market processes.

Programme Impact

Significant impact has been noted with the introduction of the livestock market co-management model. A notable inference to this is that since the co-management launching in Oldonyiro, the County Council of Isiolo collected a total of Ksh 791,780 (USD8,932) in 28 market days (from May 2011-June 2012). This revenue included cess from auction, barter and export fees.

During the first seven weeks of co-management, a total of Ksh 465,355 or USD5,248 (i.e. Ksh 324,900/USD3,665 auction fees and Ksh 140,365/USD1,583 from barter and export fees) was collected. This represents 58.77% of one year’s (28 market day) collections before co-management. The significant change in revenue is a sure indication of viability, sustained operations and management of livestock markets in the absence of external support.
As climate change puts increasing pressure on livelihoods in Northern Kenya, pastoralism is increasingly becoming economically productive as a result of these types of integrated approaches to mitigating drought related risks. It is observed that pastoralists in the ARC program areas are continually finding new forms of managing and using resources to adapt to drought.

The experience of the program shows that even in emergency contexts, interventions can and should seek to build and develop local capacities to appropriately manage key livestock assets such as rangelands and water, using local and indigenous structures, knowledge and good practice – in addition to providing more classic short term emergency assistance such as destocking or feed and water distribution. Cash can be an important tool to achieve both ends simultaneously.

There is strong evidence that in terms of economic growth, secure livelihoods and environmental sustainability, pastoralism is the most appropriate economic activity when local capacities are harnessed to design drought risk reduction interventions.