



Disaster risk reduction in the drylands of the **HORN OF AFRICA**

GOOD PRACTICE EXAMPLES FROM THE ECHO DROUGHT CYCLE MANAGEMENT PARTNERS AND BEYOND



Regional Learning & Advocacy Programme (REGLAP) for
Vulnerable Dryland Communities

Foreword

In the drylands of the Horn and East Africa a consortium of NGOs are steadily building up the resilience and adaptive capacities of pastoralist communities coping with repeated episodes of drought and disaster. As partners in ECHO's Drought Cycle Management programme, these agencies are successfully identifying how Disaster Risk Reduction (DRR) can work in practice in unforgiving dryland environments—where historically development efforts have been limited. In this first newsletter, produced by Oxfam's Regional Learning and Advocacy Project (REGLAP), selected examples of good practice in DRR have been brought together for sharing across the ECHO DCM partners and with other interested agencies.

Disaster risk reduction has the potential to integrate emergency responses with long-term development efforts, to reduce the likelihood that hazards become disasters. In dryland areas it highlights the underlying causes of vulnerability and through participatory approaches such as community based disaster risk reduction (CMDRR) puts the community in charge of preparing for and managing their responses. Other approaches such as FAO's Pastoralist Field Schools, SC UK's participatory natural resource management, all of which have existing knowledge as a starting point can complement these efforts.

However, DRR is a new approach that demands new thinking to reach its potential for preventing disasters in the drylands. It recognises the importance of the unique characteristics of dryland livelihoods—the need for mobility, for cross-border resource use, and the need to deal with conflicts over decreasing levels of resources. In this newsletter there are many examples of where the partners in the consortium have rethought their programming strategies with dryland communities. For example, ACTED's work on the Uganda-Kenya border and CARE's programme on the Kenya-Ethiopia.

As well as innovation in programme practice, technological innovation has a key role in DRR too—with technologies that can respond to the unique and difficult circumstances of remote populations. A secure water supply is crucial for resilience, and Oxfam Kenya's work to provide solar power for water pumps has reduced the need for the Turkana to travel vast distances to collect diesel fuel to access their water.

Similarly, Cordaid have established a diversity of harvesting and collection techniques to capture water for human and livestock use in Kenya and Ethiopia. Innovations aimed at making the drylands more viable include SNV and VSF Suisse's work to commercialise camel milk, whilst SC UK's innovative camel library promotes distance learning for mobile communities—investing in the next generation of pastoralists.

Of course DRR doesn't yet have all the answers, and identifying what else needs to be better understood is part of the process. Many of the articles conclude by highlighting what they see as the way forward, and Fiona Flintan's summary of her research into the crucial issue of land fragmentation demonstrates that this is already having a huge impact on resilience to drought.

As well as providing good practice examples on DRR for other NGOs and agencies, REGLAP recognises that its achievements need to be backed up by political commitment. Advocacy for the approach is crucial, and the newsletter includes opinion and news pieces as part of a process of changing the mindsets that encouraged the marginalisation of the drylands for so long. The media too is often guilty of assuming drylands equate with disaster and Linda Ogwell's piece highlights Oxfam's efforts to counteract this. The need for NGOs to better understand their own thinking is covered in Vanessa Tilstone's piece.

Fortunately some signs of political commitment to the needs of dryland communities are now emerging, as shown by the articles on the Hyogo Framework—which has been underway for some time and is now getting down to local levels—and the recently endorsed Policy Framework for Pastoralism in Africa from the African Union. The AU policy in particular promises to provide an excellent platform for guiding government efforts at securing pastoralism as a viable livelihood.

Disaster Risk Reduction is capable of building preparedness and viable responses amongst dryland communities, pushing them higher up the development and investment agendas, and ensuring that the livelihoods of these millions of highly productive people can be maintained and expanded for the benefit of East Africa and the Horn as a whole. We hope you enjoy reading about it.

Integrating Disaster Risk Reduction and Climate Change Adaptation in the Drylands of the Greater Horn of Africa

Vanessa Tilstone, MEL Manager REGLAP, looks at why it makes sense to think more long term and holistically when addressing disasters in pastoral areas.

The drylands of the Greater Horn of Africa are inhabited by over 20 million pastoralists, whose livelihood is dependent on movement with livestock—whether transhumant, nomadic or combined with agriculture or other livelihood strategies. Pastoralism developed out of the need to constantly adapt to the extreme climatic uncertainty and marginal landscapes of the drylands, and has proved to be the most economically productive and environmentally sustainable use of these remote areas.¹

Yet in recent years the drylands of the Horn have become some of the most disaster prone areas in the world. This is due to decades of political and economic marginalisation, which has led to an erosion of the pastoral asset base, and because of disrupted migration routes and access to dry season grazing areas severely curtailing pastoralists' abilities to cope with their most predominant risk—drought. Rather than address this marginalisation and reinforce adaptive capacities, there has instead been a focus on providing emergency assistance, which has often been either too late or inappropriate, and which has further undermined sustainable development in these areas.²

It is becoming clear that unless local capacities are built, and underlying vulnerabilities reduced in this increasingly unpredictable environment, the potential of pastoralism to support millions of people—on land suited to little else—will be undermined. Governments and development agencies will be faced with the far more intractable problem of sustaining

even larger numbers of unskilled peri-urban dwellers in remote and low potential areas. If on the other hand investments in infrastructure and services are made now, pastoralists will benefit from the growing local and global markets for meat and dairy products, providing a boost to the local economy for those who have already dropped out of pastoralism.

Table 1: Lack of infrastructure and service provision in North Eastern Province compared to national average, Kenya 2003³

Service provided	North eastern (%)	National average (%)
Primary education net attendance	36.3	78.7
Secondary education net attendance	2.2	12.5
Electricity at home	3.2	16.0
Access to safe drinking water	9.9	56.3
Women using antenatal care	31.7	89.9
Vaccinated children (12-23 months old)	54.3	92.6

1. WISP (2006), A Global Review of the Economics of Pastoralism, http://cmsdata.iucn.org/downloads/global_review_of_the_economics_of_pastoralism_en_1.pdf

2. HPG Briefing Note (2006), Saving lives through livelihoods <http://www.odhpn.org.uk/resources/download/1381.pdf>

In the Horn and East Africa drought affects more people, more frequently, than any other disaster. In Kenya for example, drought accounts for eight out of the ten top disasters in the last 20 years (with the other two being floods), and have affected more people and led to more deaths and economic losses than any other hazard.⁵ The climate in the Horn and East Africa is becoming more variable and less predictable. Climate modelling suggests increased temperatures are likely to largely offset predicted increases in rainfall in the drylands, where there are high rates of evaporation, and that climate change impacts will vary across time and space. Whatever happens, drought or dry seasons will continue to tip marginalised populations over the edge in their coping strategies. Attempts to build resilience and adaptive capacity among dryland communities therefore need to focus on addressing their underlying causes of vulnerability, including improvements in basic services (particularly education and health), infrastructure and market linkages, access to land, and improved governance and voice.⁶

Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) each have the potential to highlight the pressing need for addressing the underlying causes of vulnerability, and to put dryland dwellers higher up the development and investment agendas. But if debates on DRR and CCA only focus on preparedness and early response, plus limited community capacity-building, the opportunity to reduce dryland vulnerability to disasters and support its inhabitants to positively adapt to climate change will be lost in the long term. DRR and CCA debates need to become more relevant to dryland areas by using approaches and concepts that are applicable for slow onset disasters—such as drought and conflict—and to understand and build on the complex adaptation strategies and indigenous knowledge that have been developed in different communities over thousands of years.

As the most common hazards—drought and floods—are climatic, the overlap between CCA and DRR is particularly strong in pastoral areas; and given the scarcity of long-term development resources, the need to integrate DRR and CCA activities is even more urgent. Integration will limit duplication, avoid parallel processes particularly at community and local government level, and ensure sharing of essential learning and good practice. DRR and CCA can provide an opportunity to address some of the underlying obstacles to development in the drylands of the greater Horn of Africa. However significant adjustments need to be made in the approaches and thinking to ensure that the approaches are relevant and support long-term development endeavours rather than short-term measures.

Table 2: HDI indices for the worst performing districts in Uganda, highlighting the concentration of poverty in those districts with significant pastoral populations¹

District	Dominant pastoralist/ non pastoralist populations	HDI (national average 0.505)
Moroto	Pastoralist	0.216
Kotido	Pastoralist	0.292
Abim	Pastoralist	0.292
Kaabong	Pastoralist	0.292
Nakapiripirit	Pastoralist	0.370

The artificial distinction between natural and human-made disasters - UN ISDR, the UN agency responsible for coordinating DRR activities of the UN and regional and national organizations, is largely concerned with natural disasters rather than those that are human-made. Most disasters are influenced by human activity, in one-way or another: Conflict, for example, is often a cause and effect of vulnerability to drought in pastoral areas, and requires significant attention in disaster risk reduction initiatives.



The artificial distinction between natural and human-made disasters

3. HPG (2010) Pastoralism demographics, settlement and service provision in the Horn and East Africa, www.elmt-relpa.org/aesito/hoapn?id_cms_doc=58&download...

4. UNDP (2008) Human Development Report 2007/8: Fighting Climate Change – Human Solidarity in a Divided World

5. <http://www.preventionweb.net/english/countries/statistics/?cid=59>

6. HPG (2009) Pastoralism and Climate Change: Enabling Adaptive Capacity, <http://www.odi.org.uk/resources/details.asp?id=3304&title=pastoralism-climate-change-adaptation-horn-africa>

Pastoralist Field Schools: discovery based learning in practice

Deborah Duveskog, Regional Emergency Officer, Community Development, FAO

A Pastoralist Field School (PFS) can be described as a ‘school without walls’, where groups of pastoralists can learn through observation and experimentation within their own context. Through experiential and participatory learning techniques participants are empowered rather than advised what to do.

The purpose of the PFS is to improve the decision-making capacity of its participants, and their wider communities, and to stimulate local innovation. It allows pastoralists to improve their management skills and become experts in their own resource use practices. A PFS usually comprises a group of about 30 pastoralists (including elders, men, women and youths) who meet regularly over a defined period of time, often between 1-2 years. The group make observations that relate to their daily lives, particularly concerning their livestock production system and the rangeland ecosystem. A trained PFS facilitator, usually from or living in the community, will guide the learning process.



PFS participants learn through practical activities involving reflection and discussion among peers

traditional knowledge and practices. And it is this new knowledge and innovation that can best be realized through participatory learning approaches, such as PFS.

The PFS approach, in contrast to most conventional extension approaches, strengthens the capacity of local communities to analyse their livelihood systems, to identify their main constraints, and to test possible solutions. By merging their own traditional knowledge with external information, pastoralists can identify and adopt the most suitable practices and technologies to their livelihood system and needs—to become

more productive, profitable and more responsive to changing conditions.

The origin and evolution of PFS

The PFS approach is an adaptation of the Farmer Field School (FFS) approach that was developed by the Food and Agriculture Organization of the United Nations (FAO) in South East Asia in 1989. The FFS were a means of empowering farmers to develop their own solutions to problems that research and extension could not provide answers for. Around 1995 the FFS approach was first applied in Eastern Africa, originally in more high potential agricultural areas. In 2006 ILRI, together with VSF-Belgium, embarked on adapting the FFS approach to a pastoralist context in Northern Kenya. Numerous NGOs and other actors across Kenya, Uganda and Ethiopia have now taken up the PFS concept.

Why PFS is different

Research and extension institutions have traditionally used capacity building of rural communities as the mechanism for transferring technologies to land and resource users. However this approach has often proved inadequate in complex situations, where community members need to adjust their practices frequently to the changing conditions. Technology packages, delivered in a ‘top-down’ manner, have often been too complex, too expensive or poorly adapted to the real needs of people. The pastoralist system of livestock production is complex, based on rich experience and culture that is passed down from one generation to the next. New developments —such as climate change or emerging diseases—mean that pastoralists have to supplement their

The learning process

PFS activities are guided by some key principles and core activities. Learning is by doing i.e. through practical activities and exercises. The herd and the landscape are the main learning grounds—around which all PFS activities are organised. Pastoralists learn directly from what they observe, collect and experience in their surroundings—instead of through textbooks, pictures or other extension materials. The learning is problem based. Participants apply different analytical methods to help them identify and solve problems they encounter in their daily life and discovery-based learning tools trigger a spirit of curiosity and innovation. The participants, not the facilitator, decide what is relevant to them and what they want the PFS to address. Trained facilitators guide the learning process, by mentoring and supporting the participants to take responsibility for their own learning.

All Pastoral Field Schools follow the same systematic action learning process, where the key steps are observation, reflection, group discussion, analysis, decision-making and action planning. One of the core activities of the PFS is to establish and monitor comparative experiments. The PFS group provides animals and other resources to use for these experiments. These animals form the group’s study herd, on which different (but not risky) treatments are tried out, observed over time and eventually evaluated. Examples of trials might be the effects of supplementary feeding, traditional

versus veterinary recommended treatments of diseases, different methods of pasture management etc. Changing environmental conditions and factors affecting the study herd—such as disease outbreaks—form so called special topics to be addressed each week during the PFS session. Tools such as illustrations, practical demonstrations and real-life exhibits are used as learning aids, especially adapted for illiterate group members.

Pastoral-ecosystem analysis (PESA) is a cornerstone of the PFS approach. It involves making field observations, data collection and analysis, and finally coming up with recommendations on the herd-livelihood system. Through regular exercises PESA helps establish the interaction between the herd, the landscape and other living and non-living factors. Data are collected based on key observed factors to help put in place a process for decision-making. The analysis is performed in sub-groups to enhance participatory learning.

Each sub-group presents their observations and recommendations in plenary sessions for collective decision-making on management actions. The exercise—apart from enhancing observation, analytical and recording skills—also generates discussion among members and stimulates collective decision-making. Group dynamic exercises are used to create a pleasant learning environment, facilitate learning and create space to reflect and share. They also enhance capacity building in communication, problem solving and leadership skills. In addition, group dynamics, such as drama and song, can be an effective way to deal with sensitive topics such as domestic violence, alcoholism etc.

The evidence of impact

Though PFS is a young concept, some evidence of impact is starting to emerge from the initial sites in Northern Kenya and Uganda. PFS participants have taken up new and improved practices—especially related to animal health, pasture management and production—and this has contributed to

healthier herds and increased milk and meat production. A strong shift has been seen from a previous mindset of subsistence, to a more business-oriented attitude. Some PFS groups have gained substantial income, through for example, fodder production and sale, animal fattening etc. An understanding of the need for planning and the mitigation of disaster have also taken root, in which many groups have diversified their livelihood sources and taken up, for example, crop production or poultry keeping as complimentary activities to their livestock keeping.

PFS has also triggered a range of empowerment related outcomes. Participants have become more prepared to deal with their challenges and obstacles, using critical thinking and collective action, as expressed through local networks, savings and social support schemes, for example. Socially the approach has had dramatic impact on local gender relations, with men and women interacting with each other in a more equal and respectful manner. Trying out new ideas collectively has also supported a break through on certain practices associated with taboos and traditional beliefs, again often associated with gender roles.

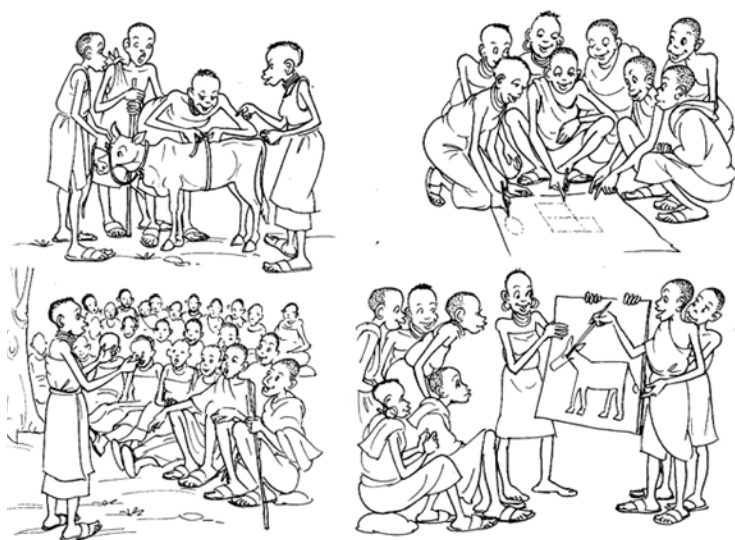
Lessons learnt and ways forward

PFS has proven itself to be an innovative and successful means of supporting the transition from emergency and relief to more longer term development. In order to achieve its potential impact however the approach has a number of requirements that are not always easy to meet. Ensuring there are well trained and competent facilitators at local level is key to the quality of PFS activities, and this requires considerably more investments in human capacity than most actors are used to in regular capacity building efforts. It is also a challenge to find suitable facilitators locally. Community Animal Health Workers have been shown to be of great value as PFS facilitators, if trained in the approach, but they are not available everywhere. Implementing agents have to internalise a participatory spirit for a more longer term demand-driven service delivery, which is a shift from the current quick relief mode of operation common among pastoral actors.

Ensuring experimentation and innovation in PFS groups has also been a challenge, and even more so when trying new management options on a broader herd or landscape level. Close linkages between the PFS group and the community at large has proven crucial in this regard and to ensure the wider impact of the PFS intervention. In this context PFS is highly complementary to community mobilisation approaches such as CMDRR. Savings and credit mechanisms (such as VSLA and VICOPA) also add much value to PFS and enhance sustainability.

Good practice principles on PFS are available at: http://www.disasterreduction.net/projects-and-activities/detail/?dyna_fefuid=191

For further information contact: deborah.duveskog@fao.org



The PESA cycle; observation, sub-group analysis, group presentations and final plenary decision-making

Cross border dynamics and cross border programming in Karamoja and Pokot

Sebastien Lambroschini, Regional Director, ACTED, East Africa

ACTED has been working on the Uganda-Kenya border for 4 years. During this time it has switched from using a standardised approach to its interventions, to using an integrated methodology that comprehensively addresses the specific cross-border dynamics of the region.

As is typical in the Horn of Africa, particularly in the pastoralist regions, the border between Uganda and Kenya is incongruent with the ethnic boundaries in the area. The Pokot are scattered between Pokot North district in Kenya and the recently created Amudat district in Uganda, while neighbouring Nakapiripirit district is populated by Karimojong—mostly belonging to the Pian sub-tribe. Until 1972, when Uganda and Kenya agreed to exchange portions of their territories, Pokot North district was a Ugandan territory. Except for in a limited agricultural zone, pastoralist and agro-pastoralist communities inhabit the Karamoja region. Even the agro-pastoralists mainly rely on livestock herding, as the soil is rocky and poor, and with limited rainfall it cannot sustain intensive agriculture. Although many aid actors are active in Karamoja, documented knowledge on cross border mobility and natural resource usage patterns and changes is limited. However in the dry season most of the pastoralists are compelled to migrate far from their homesteads to access dry season grazing areas located in Southern Amudat and South-Western Nakapiripirit districts—areas shared by both the Pian-Karimojong and Pokot communities.

Conflict and insecurity dynamics

Pastoralists have increasingly been prevented from implementing their traditional migration patterns, because of both the policy of the Ugandan government which strongly encourages the settlements of nomadic populations, and also the recurrent conflicts and insecurity in the region. Together these have diminished the capacity and the will of pastoralists to move in search of better pasture. Although cattle raids between pastoralist communities have been performed since time immemorial by all the tribes in the Karimojong cluster, the practice was traditionally authorised by tribal leaders, and was carried out by warriors in order to prove one's braveness, meet the demands of a bride-price for marriage, as well as to re-stock cattle after a prolonged dry spell. Now the proliferation of small arms, the diminished access to resources, the constant increase in population, the increasing importance of money within society and a corresponding lack of general economic development, have led to increasingly frequent

raids within the region. The ongoing forced disarmament policy in Karamoja, in parallel with the Kenyan government voluntary disarmament process, has also created a power imbalance between conflicting groups.

Standardized programming across international borders

From 2007 to 2009, ACTED's interventions in Karamoja and Pokot piloted the implementation of a standard strategy in the two countries, under the single management of ACTED Uganda. The rationale came from a realisation that aid interventions in similar contexts across an international border often follow very different designs and strategies when implemented by separate country missions, whose communication with each other can be limited. In this case ACTED applied lessons learned from one country to the other, and utilised its successful experiences elsewhere in Northern Uganda.

ACTED implemented Village Savings and Loan Associations



The 'ere' (kraals) in Karamoja are designed defensively: the cattle sleep in the centre surrounded by the households.

(VSLAs) in Karamoja and Village Community Bank Associations (VICOBAs) in Pokot North. Preliminary monitoring suggests that VSLA has, to date, been a success in Karamoja as illustrated by the members' active participation (especially in women's groups), the constitution of significant savings funds, and the use of loans by all the group members. They have now been introduced into Pokot North where positive results are also being seen, as illustrated by constant community requests to expand the intervention.

Towards integrated cross-border programming

In late 2009, ACTED Uganda reviewed its strategy so as to directly and comprehensively address the cross-border dynamics in its projects. The standardized approach, though successful, had indicated that to address specific cross-border issues the area should be considered as one unit. For instance, livestock diseases do not stop at international borders—especially in pastoralist areas—even if animal vaccination campaigns are usually not coordinated between governments. Common training sessions for Community Animal Health Workers (CAHWs) from North Pokot and Karamoja, involving district veterinary officers of both countries, helped establish linkages between the various stakeholders. Even though the involvement of local authorities in cross-border CAHWs initiatives remains limited, the linkages built have ensured increased communication at community level and are a step towards addressing cross border disease control. ACTED's programs in 2011-12 will specifically support increased coordination between authorities on both sides of the border.

Disaster management and risk reduction is critical in the Karamoja and Pokot areas, and needs to be addressed holistically as communities from both sides of the border often share the same natural resources during the dry seasons. In this respect, ACTED found that cross-border exchange visits or trainings provided a good opportunity to increase understanding and establish potential collaboration between communities. Beneficiaries get to know more about their neighbour's environment, culture and lifestyle, and realize that they actually have a lot in common and understand the reasons for differences in behaviour. For example, some Pian Pastoral field schools (PFS) members were surprised to discover how arid the Pokot area was, and thus understood better the reason that Pokot pastoralists have to migrate to Karamoja during the dry season. While visiting Pian PFSs, the Pokot came to realize the complexity of the ethnic patchwork in Karamoja, and thus the difficulties encountered by the Pians to ensure their daily security.



The traditional headrest or stool which Karimojong men always carry, and the vaccination syringe of a community animal health worker.

In the light of these encouraging results, and as a first step towards conflict mitigation, ACTED will now mobilize the Pokot and Karamojong-Pian communities to develop dry season natural resource use agreements. This will be done through Community Disaster Management Committees, which received training in the Community-Managed Disaster Risk Reduction methodology. These committees will lead the negotiations aimed at achieving cross-border inter-community agreements. ACTED facilitated the negotiation that led to such an agreement between the Turkana and Pokot in Kenya, and hopes that a similar success can be achieved between the Pian and the Pokot.

Future recommendations

Integrated cross-border programming comes with a number of operational challenges, including higher costs, for example for vehicle insurance for both countries, as well as significant delays owing to currency exchanges and visa delivery procedures when crossing the border, or administrative constraints and labour laws in the two countries. To improve strengthen the management of its cross-border activities ACTED set up a regional office in charge of cross-

border programs.

From its experience in the Karamoja and Pokot areas over the past 4 years, ACTED has concluded that efficient cross-border interventions should be designed considering the very little significance that official country borders have for (agro) pastoralist communities. Establishing linkages should be at the core of each cross-border intervention as it allows improved understanding and trust between parties; hence fostering cooperation as well as timely exchange of information. Moreover, coordination of government officials from both countries is critical to address challenges. In 2011 and 2012, ACTED aims to continue this work by promoting a holistic Community-based Disaster Risk Reduction approach in this area, and building trust among conflict-prone communities by focusing on a specific priority issue—access to dry season grazing areas—to provide the basis for addressing other cross border issues in the future.

A technical brief on this project and good practice principles on cross border programming are available at: [http://www.disasterriskreduction.net/projects-and-activities/detail/?dynafeff\[uid\]=191](http://www.disasterriskreduction.net/projects-and-activities/detail/?dynafeff[uid]=191)

For further information contact: sebastien.lambroschini@acted.org

Consultations restart for Uganda's Rangeland Management Policy

Francis Odokorach, Pastoralism programme, Oxfam GB, Uganda

Back in 2006, under the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF), Uganda began developing a national policy on Rangeland Management. Consultations were conducted in most parts of the country, except for the Karamoja region in the North East due to the insecurity at the time. The draft policy document was then shelved due to other competing priorities. Recently, with funding support from the United Nations Development Programme, the Ministry announced that it would restart the policy development process with four regional consultations to review the policy draft. A roadmap was developed with a plan to finalise the process within one year.

The Ugandan rangelands, commonly referred to in Uganda as the 'cattle corridor', occupy 51% of the nation's land mass and are home to 40% of the country's population. The rangelands experience low and erratic rainfall, of between 500-1,000mm a year, and thus are particularly suited to the pastoralism that has been the main livelihood of the majority of the population for generations.

The Coalition of Pastoralist Civil Society Organisations (COPACSO) is comprised of over 20 civil society organisations from across Uganda with an interest in pastoralism. It is chaired by the Uganda Land Alliance (ULA) as the leading body on voicing the concerns of Ugandan pastoralists within policymaking processes. ULA had already been successfully engaged in the Land Policy development process with support from Oxfam GB, and COPACSO and ULA were invited by the Government to partner in the Rangeland Management Policy consultation process. They would also provide subsequent technical support. The International Institute for the Environment and Development (IIED) has now been engaged by ULA to carry out a technical review of the draft policy, with funding from Oxfam GB. The review is due to be finalised in May 2011, and consultations are likely to begin thereafter.

Uganda's Civil Society Organisations are hopeful that, despite the negative perceptions of pastoralism in Uganda, meaningful consultation and technical inputs based on scientific evidence can contribute to a useful policy document, that will contribute to sustainable rangeland management and the integration of pastoralists in decision-making processes in the country.



Kraal leaders during a meeting over grazing land in Karamoja

Bringing books to pastoralist communities: Camel Libraries in the Somali Region

Nicola Berry, Head of Education at Save the Children UK, Ethiopia

Ethiopia's Somali region is a challenging environment, with huge distances between communities, and a unique way of life. An innovative approach is needed here if the pastoralist children are to have access to books essential for the success of basic education programmes.

Learning comes with reading

Ethiopia has seen an impressive increase in the overall access to education, particularly at primary school level. Across the country over 80% of children now attend primary school. And even in the pastoralist Somali region children are beginning to benefit from the expansion of education provision. The primary enrolment rate here is now over 50% and quickly rising⁷. The quality of education remains a key issue, however. While Federal programmes, such as the General Education Quality Improvement Package (GEQIP), should be leading to improvements in learning, current indicators show a serious problem: In the last Grade 4 National Learning Assessment of 2007, the average score across all subjects was 40.9%.

In 2010 national Early Grade Reading Assessments were carried out which showed extremely low levels of reading ability. Children in grade 2 were tested and 34% were unable to read a single word in the reading passage given.⁸ This is a particular concern, as it is known that learning to read is the key skill on which all other learning is built. While the explanation behind these low figures is undoubtedly multi-faceted, a visit to many Ethiopian classrooms will reveal very few books and reading materials—essential resources for any child learning to read. The lack of resources in Somali Region is particularly poor, where there is a desperate need for more books and reading materials if children here are to progress.

Mobile communities, mobile libraries

A meeting between Save the Children UK SC UK, and the Somali Region based local NGO 'Aged and Children Pastoralist Association' (ACPA), established the idea of a camel library for the mobile pastoralist communities of the Somali region. Similar libraries already exist in Northern Kenya, and in Ethiopia the NGO 'Ethiopia Reads' runs a donkey library service, but no such programme has been seen in the Somali Region. The camel library became fully operational in 2010, and currently serves 10 communities in Afdem woreda. Each community is visited monthly, and approximately 500 children benefit from the service.

Durable books in Somali

As a new project the camel library has faced a number of



When the library arrives in a community, the books and other items are unloaded, the tent is pitched and the books are displayed on the mat. A floor mat is provided as sitting space for those who wish to browse the books.

challenges, the biggest of which is the supply of suitable and relevant books and reading materials in the Somali language. The SC UK team had previously prepared a number of books for use in schools, but while these have served as core materials for the library, the reading level is too high for the children. The soft cover and thin paper is also not durable enough for the harsh conditions of the region. SC UK has therefore commissioned and published a number of new storybooks to place in the mobile libraries. These have been designed to closely reflect the children's way of life, and help children to work through the challenges they face. In addition about 50 dual language Somali-English children's books were purchased from the UK. However, while these are highly durable, extremely attractive, and give Somali children a window into other cultures, they are an expensive solution and logistically difficult to procure.

Out of range on the rangelands

Another challenge has been planning the route for the camel library to take. The original map had the route for library reaching many more communities and children, but the distance between the communities proved to be too large, and time spent with the communities too short. The route has been modified a number of times and is now significantly

7. Education Statistics Annual Abstract 2009-10, Ministry of Education

8. The Ethiopia EGRA was carried out by RTI in May – June 2010. 13,079 children from grades 2 and 3, across 8 regions and city administrations were tested.

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shorter than originally envisaged. Communicating along the route has also been difficult—making it is hard to track where the camel library is at any point. A clear rota that is followed on a monthly basis has helped solve this problem, together with the provision of a mobile phone—although the network is only available in about 50% of the area covered.

Room for more

The library has only been operational for under a year, so it is not yet possible to measure its impact on reading levels, or whether it has generated a new enthusiasm for learning. What is clear though is that the library has been extremely well received by the communities it serves. During visits by the library children will line up eagerly to choose their books—clutching their library cards. The regional government has now also embraced the project and is encouraging its expansion. Funding is now being sought to develop the service. This year it is hoped the project can be expanded to 6 libraries visiting about 50 communities in total.

With the system up and running there is now a tremendous potential for the mobile library system to be expanded in

scope: For example the libraries could carry tape players and transmit the tapes of traditional Somali stories that have already been prepared by ACPA. There is also the option for the camels to carry other materials: While early childhood education is becoming a national priority, it is unavailable to most Somali children. It is hoped to remedy this with early childhood equipment boxes which young children and their mothers will be able to access together. The camels could also go beyond the education theme: The Health Team at SCUK are exploring the possibility of using the camel libraries to deliver health services and drugs, linking the libraries with Health Extension Workers.

The camel library model has already shown itself to be an innovative approach to distance learning. The camels' next steps are to start delivering other basic services to pastoralist communities in remote locations.

For further information contact: Katy Webley Director of Policy and Programs katy.w@scuk.org.et



The camel library consists of two camels—each equipped with 2 boxes full of books, mats and a tent structure—accompanied by a librarian and a camel herder. Finding suitable camels proved to be almost as tricky as finding appropriate books. Camels are expensive—especially fully mature animals. ACPA was able to buy one adult animal and a young camel. Although cheaper, this initially slowed the operation as the young camel had to learn to carry the boxes.



Children arrive with the book that they borrowed on the last visit, and their library registration card, and then choose a new book to borrow and read.



The librarian stays with the community overnight, giving plenty of time to share the books with the children and adults, read stories, and promote a love of reading.⁹

⁹ Child protection could potentially be an issue with such a project. SCUK has provided child protection training to the staff involved in the library to mitigate this risk.



The drought crisis in Kenya – will it ever end?

Linda Ogwell, Oxfam GB, Kenya

A meeting of the Kenyan media and the Government looks at why droughts always seem to translate into catastrophes.

In the last 25 years Kenya has experienced prolonged dry periods that have affected millions of people and killed huge numbers of livestock—especially in the most marginalised parts of the country, the Arid and Semi-Arid Lands (ASALs). A recent dry spell—due to well predicted La Nina phenomena—has seen: around 5 million people facing hunger; livestock dying and livestock sale prices falling; water and pasture becoming scarce; migration both within and outside the country raising fears of insecurity and conflict; a decline in school enrolment by pastoralist children; and a hike in the malnutrition statistics. The question arises, why does such a regular and predictable phenomenon lead—more often than not—to suffering, loss of livelihoods and sometimes life? And furthermore, why does the Kenyan Government and its development partners continue to invest so little in lasting measures to ensure all Kenyans can have access to food and can protect their livelihood assets—as is their basic right and entitlement under the Bill of Rights in the country's new constitution?

In an attempt to answer these questions, the Regional Learning and Advocacy Programme for Vulnerable Dryland Communities (REGLAP) recently put together a media briefing for both editors and journalists. The objective was to discuss ways of enhancing the media's capacity to question and cover drought management issues more analytically. The meeting was prompted by the then extensive—but shallow—coverage of the drought by the media, in which the reporting only highlighted the plight of those affected, without discussing the underlying reasons why, in Kenya, dry spells and drought always seem to translate into catastrophe.

Safia Abdi, REGLAP's Kenyan Coordinator, presented five reasons why Kenyan dry periods are increasingly leading to disaster. Key among them is the continuous under investment in the ASALs, which has made the population there particularly vulnerable. Other reasons included the very poor—or at times non-existent—policies that are in place, and the slow implementation of the good policies. Late and inappropriate responses, as well as poor coordination at local levels, are

also significant factors. During the meeting with the media, the Government—represented by the Honourable Mohammed Elmi (Minister for Development of Northern Kenya and other Arid Lands)—acknowledged that their response this year had been slow and poorly coordinated due to structural problems. However, he also added that the Government is ready to address some of the underlying issues that are continuing to undermine the livelihoods of those living in drought prone areas:

"The Government is fully committed to reversing this situation so that communities are better cushioned against the impact of drought. The new Constitution, with mechanisms such as the Equalisation Fund, and the overhaul of the budgeting system under the Commission on Revenue Allocation, will be instrumental in ensuring greater equity in the distribution of national resources."

Hon. Elmi stated further that Kenya has a well-developed and well-respected drought management system: *"In 23 arid and semi-arid counties there is a community-based early warning system in operation. And each of these counties also produces regular contingency plans."* By way of balance the Minister also cited two key obstacles: *"A drought management system that operates within a project that is partially donor-financed is not institutionalised, and lacks the necessary authority to ensure coordination across Government; and (secondly) the current drought management system lacks financial flexibility."* As a potential solution to this Hon Elmi proposed the creation of a National Drought Management Authority that would solely focus its attention on drought—even in good years—and thus permit long-term planning and an improvement in the quality of the drought management system over time.

At the conclusion of the media meeting, Safi Abdi of REGLAP suggested several steps that could be taken to help find long-term solutions to the drought-induced disasters, including requesting the government to redress the unequal provision of basic services and utilities in the ASALs, and ensuring better development in the region.

In addition, REGLAP urged the Government to rapidly increase investment in the livestock sector including: improving infrastructure and disease control; prioritising, finalising and implementing key draft policies; establishing institutional bodies that can help deal with both the immediate crisis and long-term needs; and strengthening local level co-ordination—for both now and in the future—to ensure that line sectors are engaged in focused and realistic joint preparedness and response planning.

REGLAP further reiterated that approaches like Drought Cycle Management, which has been developed and practiced by Government and Civil Society Organizations (CSOs) in Kenya for a number of years, are providing a good framework for dealing with drought. The DCM approach ensures that priority is given to preparing in advance for droughts, and building communities' ability to cope—not just responding when there is an emergency.

The meeting ended with the Government and donors also being asked to show better commitment, by providing long-term flexible funding as well as by providing easily accessible contingency funds. NGOs were also asked to work closely with the Government and other agencies to develop models of good practice, and to ensure that these are used and implemented. As Safi Abdi succinctly put it: "The Kenyan Government, aid agencies, donors and the media urgently need to re-assess how Kenya deals with drought and investment in its ASAL areas. With the right action at the right time, hazards such as drought will not always result in disaster, and lives and livelihoods can be saved."

The REGLAP Kenya Media Brief and the resulting media coverage is available at: http://www.disasterriskreduction.net/projects-and-activities/detail/?dyna_feffuid=191

For more information contact: logwell@oxfam.org.uk

Disaster Risk Reduction (DRR) partners are brought together online

Shannon Miskell Communications and Program Support, **FAO Sub Regional Office**

www.disasterriskreduction.net



The DRR website is an innovative information platform for everybody involved in DRR work in the region of eastern and central Africa. It does this by connecting about 70 partners, including NGOs and different UN agencies, and offering access to project information and lessons-learned research on DRR in the region.

Using a who- what- where- mapping application, the web site allows partners to upload relevant project information so other stakeholders can get access to and share knowledge about what is happening in the region.

The site also hosts the Food Security and Nutrition Working Group (FSNWG) and thematic sub groups such as La Nina task force and the Market Analysis sub group (MAS). Everybody can therefore access the latest alerts and market profiles, download updated food security maps, or review

archived meeting presentations and minutes.

"That is what makes this web site so unique. Providing shared and coordinated information brings all the actors involved in DRR work in eastern and central Africa together", says Phillip Fong, Project Officer managing the DRR web site at the FAO Sub-Regional Emergency Office for Eastern and Central Africa (REOA).

Currently, the web site has registered about 8 400 visits and 2 780 unique users. "The trend is clear, the user-base is increasing, but we still need more content from partners," says Fong. "It's very easy to upload documents and we encourage donors and humanitarian actors to be more proactive about sharing information."

If you would like assistance with the DRR web site, contact: Phillip Fong at phillip.fong@fao.org

Commercialising Camel Milk: Progress from Isiolo

Morgan Siloma and Thomas Were (SNV - Netherlands), Dr. Simon Chuchu (VSF Suisse) Kenya

The potential of camel milk is not being fully exploited in the Horn of Africa. In the Greater Isiolo area of Northern Kenya a consortium of development partners are setting about strengthening the camel's overall contribution to people's livelihoods by making the producers and traders more market oriented, and the milk production chain more effective.



Camels are becoming the livestock of choice in some parts of the Horn of Africa, with their ability to withstand drought and to graze on areas of degraded rangeland. But whilst the increasing numbers of camels are now being exploited for the international trade in meat, what is not being exploited is the nutritional and medicinal value of their camel milk. This is due to poor capacity in production and marketing, poor infrastructure, the lack of any effective coordination, and a lack of awareness of the nutritional value of camel milk.

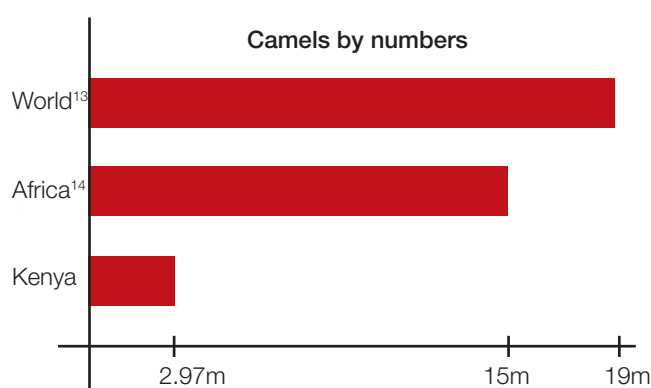
The focus of a development consortium in Isiolo has been to strategically enhance the business efficiency of the Isiolo-Eastleigh camel milk chain; to improve the hygiene of the milk chain; and to facilitate the opening up of new markets for camel milk by encouraging an increased supply through better infrastructure and coordination. The development partners

include the Kenya Camel Association, SNV – Netherlands, VSF Suisse¹⁰, and KARI-KASAL.¹¹ The partners have divided up their responsibilities: VSF-Suisse and KARI-KASAL are supporting the improvement of camel milk hygiene and handling, and SNV are supporting improvements in business efficiency and marketing up the chain.

The results so far show that demand for camel milk is gradually increasing but there is still a need for further strengthening of the market linkages to increase supply. Since the work started women producers are now using M-Pesa as a means for their cash transactions and have opened bank accounts; camel milk traders are accessing financial services to improve on their transport services; and aluminium cans are being used to improve hygiene. But if the camel milk sector is to shift from subsistence into full commercial production there is need for further investment to ensure that these efficiency gains are retained.

Kenya's camels

Most of Kenya's camels are kept by pastoralists, particularly the Somali, Rendille, Gabbra, and Turkana communities living in some of the harshest arid and semi-arid lands—areas also ranked as the poorest parts of the country. These camels are very reliable milk producers, continuing to produce milk during the dry season and in drought years, when milk from cattle, sheep and goats is scarce. Camels will often contribute up to 50% of the nutrient intake of pastoralists. From a global perspective the economic significance of camel production is minimal, in comparison with that of other domestic animals, but in Africa, especially in East Africa and the Sahel countries, camels make a significant contribution to national economies. However, evaluating this economic contribution is extremely difficult as most of the camel products are traded in the informal sector.¹²



10. Veterinaries Sans Frontiers Switzerland.

11. Kenya Agricultural Research Institute's Kenya Arid and Semi Arid Lands Program

12. <http://www.fao.org/DOCREP/003/X6528E/X6528E01.htm>

13. FAO - Food and Agriculture Organization of the United Nations.

14. 2009 Kenya Livestock Population Census

15. <http://www.ebpdn.org/download/download.php?table=resources&id=2337>

PEOPLE AND LIVESTOCK

this, Isiolo currently provides over 90% of the camel milk that is reaching the national urban markets.¹⁷ Various reasons can be given for this including its proximity to Nairobi, the good tarmac road, and the market/business orientation of the Somali segment in the Isiolo population. It is estimated that Greater Isiolo produces about 40,000 litres of camel milk a day. But out of this only about 5,000 litres (12.5%) is supplied to the main market in Nairobi at Eastleigh. The rural household and restaurant segment is estimated to take up another 25% of the marketed milk, which means that there is still over 50% of the volume of camel milk that is not accounted for in the chain¹⁸.

Table 1: Camel population and production trends

Source: The District Livestock Production Officer, Isiolo

YEAR	2005	2006	2007	2008	2009
Population	32500	33900	37900	39100	40300
Slaughter	307	379	473	722	824
Av. Daily milk Exports (Lt) to Nairobi	4000	4600	5300	5400	5200
Camel milk prices (Ksh)	24	28	32-35	37-40	40-70

Enhancing financial efficiency - SNV

In 2008 SNV's Northern Kenya Portfolio became interested in supporting the camel milk chain from Isiolo and after undertaking a rapid assessment, identified the Anolei women's group as a potential unit that needed support for improving camel milk production and marketing. SNV undertook a gross margin analysis of the camel milk chain to assess how the group was managing their business, and the costs involved in running it. It was found that the transportation costs of the milk from Isiolo to Nairobi were the greatest cost to the business and could perhaps be reduced through the purchase of a truck. SNV also encouraged the Equity Bank in Isiolo to provide training sessions on business development services

and provide credit services for the Anolei group. Before the SNV intervention the group would make all its transactions in cash: The traders in Isiolo would send milk via the buses to Eastleigh in the morning, and the wholesalers in Eastleigh would then send cash back to the women traders in Isiolo via the bus drivers. After several incidences of theft the women traders were advised to adopt the "Safaricom Mpesa" money transfer system.

Improving camel milk hygiene – VSF Suisse and KARI-KASAL

A key challenge to the expansion of the camel milk market is its unhygienic handling along the supply chain. One of its core competences of VSF-Suisse is animal health and hygienic food production (milk and meat) and they began by undertaking a baseline survey (milk sampling and testing) of milk quality throughout the chain from Isiolo to Eastleigh. Training sessions for 300 producers, 60 traders/bulkers, 20 transporters and 30 retailers on hygienic milk handling practices then followed. VSF-Suisse supplied aluminium cans to the producers, bulkers and retailers as they keep the milk at low temperatures and therefore reduce spoilage. After the training, milk quality testing was carried out again and the results confirmed tremendous reduction in milk contamination. The use of aluminium cans introduced a new challenge however: Aluminium cans are heavier than plastic cans and the bus operators complained of the increase in the weight and the cans being at a higher risk of being stolen. The transporters increased the freight charges of both milk and the returning cans. VSF-Suisse facilitated a meeting between the traders and transporters to discuss this and 30% of milk is now transported in aluminium containers.

In another VSF Suisse intervention an exchange visit was made by the Anolei group to the Nyala Dairy co-operative in Nyandarua, after which they asked the District Public Health office to support them with training in milk handling practices, and decided to register their own camel dairy milk marketing co-operative¹⁹. VSF Suisse has also supported the women

to open up a milk bar in Isiolo town by renovating a shop that meets all public health standards. As a co-operative the women are now focused on improving milk handling practices, supplying Isiolo town with value added camel milk products (mala and yoghurt) and bulking the milk together to improve marketing efficiency.

Opening up new camel milk markets - SNV

To identify a strategy for increasing consumption levels it was decided to assess the viability of the other towns in Kenya that were already consuming a minimal amount of camel milk. The plan was to reach out to three new markets with a target of opening new outlets in two of them. An SNV consultant assisted



Between 5,000 – 6,000 liters of camel milk is transported daily from Isiolo to Eastleigh Nairobi.

16. 2009 Kenya Livestock Population Census

17. <http://www.ebpdn.org/download/download.php?table=resources&id=2337>

18. District Livestock Production Office (DLPO), Isiolo

19. The co-operative was registered in Dec 2010 and is now operational.

in this by researching the milk from Eastleigh that goes on to supply other areas in Nairobi and Nakuru, Malaba, Mombasa, Eldoret and Kakuma.

With the shifting from cattle to camels among some pastoralist populations as a response to increased vulnerability to drought, as well as camel restocking by NGOs including VSF Suisse and the Kenya Camel Association, it was hoped there would be a supply response to an increase in market opportunities. Other initiatives that were carried out in an effort to increase the overall supply of camel milk included promoting animal health and husbandry through the training of animal health personnel—particularly local level Camel Service Providers (CASPROs).

Enhancing co-ordination of stakeholders - SNV

Work undertaken on camel milk by the development partners in the 1990s generated significant interest from the government, international and national NGOs, learning institutions, and the progressive members of the business community. However the major challenge to the sector has been the absence of a framework to guide and facilitate development at the national level. The Kenya Camel Association (KCA) is a membership organisation formed in 1995 to promote camel related issues

at national level. KCA has worked hard at researching and lobbying for the camel to be recognised in national level policies, but these efforts are yet to be felt at the district and community level. KCA also did not see itself as the structure that would facilitate the development of the sector.

In 2009 SNV supported KCA to undergo a strategic reflection and planning process to clarify their role and vision, creating the strategic plan for 2010-2013. SNV also supported KCA to organise a multi-stakeholder meeting to present the strategic plan and interest other stakeholders. Organisations that have shown interest include the Ministry of Northern Kenya, Food for the Hungry Kenya, Farm Africa, and the Kenya Drylands Livestock Development Programme (KDLDLP) among others. It is through this effort that KCA also received money from FAO to promote camel milk consumption throughout major cities in Kenya including Eldoret, Kisumu, Mombasa and Nairobi.

The future challenges to commercialising camel milk

Despite the progress made in Isiolo, major challenges remain in commercialising camel milk and require a further concerted effort. They include: explaining the value and nutritional attributes of camel milk; addressing the informal dynamics of the camel milk sector; coordinating the diverse approaches of partners; and addressing issues of poor infrastructure—especially interior roads, dairies and cooling plants. The camel milk development partners will continue to work on these issues, but other assistance is needed to make solid progress.

The camel milk sector has considerable potential—domestically, regionally and internationally. Camel milk is a rich source of nutrition for dryland communities and has considerable medicinal and health benefits. Its potential for income generation in the drylands—particularly in the face of increasing climatic variability and pressure on pasture and water resource—is considerable.

To realise this joint action among partners, structured investment, capacity building for all the actors across the chain, and a vigorous marketing of the product is necessary. If achieved the sector will provide a wide range of benefits to the camel milk producers, traders and consumers, as well as Kenya as a whole.

For more information contact: simmwach@yahoo.com



It is the Somali community who are most involved in camel milk production.

Solar Pumps Improve Water Security in Drought Prone Areas

Brian McSorley, WASH Co-ordinator, Oxfam Kenya

Oxfam has now begun promoting solar pumping systems in place of diesel generators, which tend to be poorly maintained and costly to run. So far it has supported seven communities to install solar systems in their villages. The results are very encouraging and indicate a reduction in water stress and improved resilience to drought.

No water when you need it

In Turkana the pastoralist communities rely on different water points at different times of the year. This is partly because they need to be mobile to find grazing, but also because of the seasonal nature of many of their water sources. As the dry seasons extends, the pans, scoop holes and shallow wells they use dry out completely, and the Turkana must resort to mechanised boreholes powered by diesel generators. Although mechanised boreholes are capable of very high water outputs, they have high operational costs—requiring not only diesel but also spare parts and maintenance. Collecting the revenue needed to cover these costs is difficult to do in pastoralist communities, and as a result diesel generators lack regular servicing and are often only intermittently in operation. A diesel generator may well be used until it has broken down completely before there is any effort at repair or maintenance.

During periods of drought mechanised borehole systems become the only water supply available, and pumps and generators may often need to operate round the clock to meet the demands of people and livestock coming from vast distances. Continuous use puts considerable stress on the poorly maintained equipment, and the result is a very high probability of failure—just when the borehole is needed the most. Unsurprisingly many drought intervention activities are forced to focus on providing fuel and spare parts to communities, even in the full knowledge that this is undermining attempts at improving local management systems by inadvertently rewarding poor management.

“The paradox of diesel powered water systems is that the point at which they are most required coincides with the point at which pastoral communities are least able to afford to operate them.”

A strategy for water security

Oxfam GB has now begun implementing water projects that improve resilience to drought and increase self-reliance. Like other organisations, Oxfam had found itself repeating the same reactive intervention, often in the same communities, each time there was a prolonged dry spell or drought—creating a repetitive cycle and dependency on external support. With new longer-term disaster risk reduction funding initiatives—such as ECHO’s Regional Drought Decision and the EC Drought Management Initiative (DMI)—there is now an excellent opportunity to address underlying problems more thoughtfully.

Oxfam’s DMI project is focused on three areas:

1. **Intensive capacity building** at village level to improve management and equip communities with the skills required for operating and maintaining their water systems. Key components are revenue collection, good governance and accountability.
2. **Appropriate technology.** Although there is no technological quick fix or alternative to good water point management, for some villages—no matter how much training is carried out—the current infrastructure is simply not appropriate for their environment.
3. **Reducing dependency on a single water point.** Developing alternative water points for the highly vulnerable communities with only one dry season water source has been a key strategy of the programme. The focus is on spreading supply and demand across a wider area and between a greater number of water points—whilst also considering the potential impact on mobility and resource use patterns.

Case Study: Turning solar in Kaaling village

During the drought of 2005/06 Oxfam and others had provided fuel to Kaaling village, NE Turkana, to keep its (10KVA) generator operating, and the water flowing. During a brief recovery period in 2007 Oxfam rehabilitated part of the water system, and constructed water kiosks to separate human and animal collection points. But during follow up visits it became apparent that the kiosks were being used only intermittently because there were shallow wells some distance away which allowed free access.

Discussions with users confirmed that, even if the water quality is poor, people seek the cheapest available water, and only resort to paying for pumped water when the free sources dry up or when high demand makes it necessary. The chairperson of the water user association also confirmed that the source of Kaaling's diesel fuel was a 500 km round trip to Lodwar—taking 3 days on average—so even if money was available to pay for it, the fuel was not always purchased on time.

After a series of meetings the community was enabled to make an informed decision about switching from diesel to solar: Its lower running costs ultimately outweighed their concern that the smaller capacity solar pump would not produce as much water as the diesel system it was replacing²⁰. Since installation the solar pump has ensured a steady, reliable daily production, yielding significantly more water than the previous bigger pump had done operating only intermittently.

For the first time water revenue in Kaaling village is exceeding its operating costs, and money is being banked. As the Chairperson of Kaaling Water User Association explains - "We never used to have any savings before; the revenue collected was never enough to cater for all our monthly needs i.e. fuel purchase, salaries, genset servicing, cost of transporting fuel from Lodwar to Kaaling. Since the installation of solar pump, we've been able to save 110,000 Kenyan Shillings (approximately €1,000) and paid all the debts".

For the community the change to solar has made a real difference as Akai Eripon, a resident, explains: "...the installation of the solar pump has made life easier for me, there is constant flow of water. I don't have to use the unclean water from the scoop holes, as was the case when we used to go without water for a number of days when we waited for fuel to be purchased, or waited for a mechanic to come to fix the genset."

Although Kaaling's solar system is still very new, it has passed its first test and supplied water through the drought of 2008/09, which was of a similar severity to others in recent years. The village had an uninterrupted supply of water throughout—with no need for external support.



Solar panels

²⁰ The current limitation of solar pumps is the size of the electric motor, which for the Grundfos pumps used in DMI are 1400W maximum capacity. More standard electric submersible pumps have a much wider range of sizes including much bigger pumps and can therefore pump higher volumes and to greater elevations

From subsidies to self-reliance

Oxfam began work in the neighbouring villages of Kaaling and Kokuro, NE Turkana, where the diesel systems had been functioning only intermittently for many years. By replacing them with solar powered pumps a long history of external support for equipment repairs and fuel subsidies has now been replaced by a system that is self-reliant. During the 2008-09 drought the two villages received an uninterrupted supply of water from their solar systems. In Kokuro village there is now even a surplus of water outside the dry season—when demand from animals is lower—which has been utilised to develop vegetable plots.

Although solar systems also require the collection of revenue from water users to cover for replacement costs etc, their key advantage is that in the short term their daily operational costs are negligible—depending only on the sun. The lack of cash during drought periods is therefore much less likely to be an issue affecting water production. Solar panels also contain no moving parts, and often come with a 20-year guarantee, so are more reliable than diesel generators, reducing the likelihood of a breakdown during a time of acute need.

Oxfam has also made progress elsewhere in Turkana: The water needs of Kaikor—which is one of the larger trading centres in the North of Turkana—is now being supplied 100% by renewable energy (two solar powered boreholes and a handpump). More recently systems in Loarengak and Meyan have been installed, with plans in place for three more communities who have requested support to switch to solar. The reduced carbon footprint of solar is an additional benefit that Turkana villagers are unlikely to consider, but solar's improved reliability and the cheaper access to water is having a major impact on their daily life. The impact on people's health, through better access to potable water, is a further benefit that has not yet been evaluated.

Solar constraints

Turning solar is not without its challenges however. In Kaikor and Kokuro the solar panels were stolen at first, which interrupted the water supply. As a result both villages had to become more vigilant and post night guards at their boreholes. The installation process was also adapted with the panels elevated and welded in more securely. In the last two years no further incidences of theft have occurred, but other problems have been experienced at these two sites including problems with the control switches—one due to rodent damage.

Although very similar to diesel in design and construction, pumps powered by solar appear to be more susceptible than diesel to the presence of silt in the water. This can be a particular problem where they are installed in old or poorly constructed boreholes. These issues are now being fed back to the manufacturer in the hope that they will be addressed in future designs.

One key constraint affecting the performance of the current range of solar pumps is the motor size (power output), which

is currently restricted to 1400Watts—setting a limit on the volume of water that can be pumped and the elevation of pumping. Oxfam is about to pilot a duel pump unit—operating two pumps in parallel—therefore doubling the output that one solar pump is able to produce. The output of solar pumps also decreases significantly when the sky is overcast. Pumping records at Kaaling village indicate that overcast conditions can reduce water output by as much as 50%. Fortunately this happens mostly during the rainy season when demand for water is low.

Water security

The overall performance of the solar systems installed in Turkana is good, and the signs are that they are directly contributing to improved water security for the communities in these drought prone areas. The systems are still relatively new however, and no technological quick-fix can cover up poor water management, or ineffective support services (services that the Regional Water Boards should be providing). But in the context of Turkana, where the cost of fuel is beyond the financial means of the average person, and where fuel, spare parts and technical support is problematic, the use of this simpler, more reliable pumping system, running off renewable energy, does appear to be a step in the right direction. In terms of increasing the level of self-reliance that communities have, and reducing the need for external support, it has already done its job.

For technical information on Grundfos SQ flex pumps go to the following link: http://net.grundfos.com/doc/webnet/sq_flex/int/performance_solar.html

For further information contact:
b.mcsorley@oxfam.org.uk



Unclean water from scoop holes



Solar panels need to be secured from theft

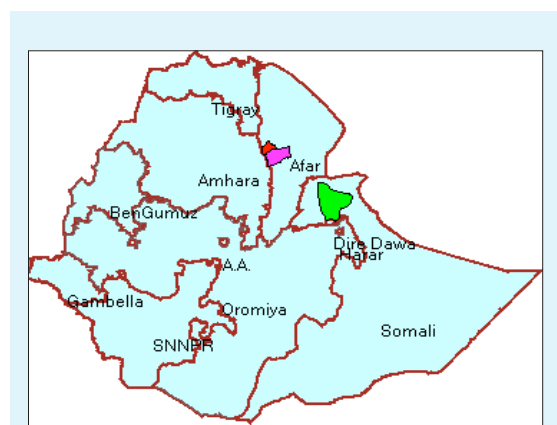
Using a crisis modifier and contingency planning to respond rapidly to drought emergencies

Abebe Zewdu (Senior DRR Coordinator) and Teriessa Jallela (Project Manager, PILLAR PLUS), Save the Children UK Ethiopia

When the main rainy seasons failed in the Afar region and in Shinile zone of Somali region in 2009, community based early warning reports, project monitoring reports and joint seasonal multi-agency assessment findings all showed the worsening livelihoods conditions of the pastoralist communities: livestock disease outbreaks, deterioration of the body condition of animals, grain price hikes, weakened terms of trade and, most importantly, crucial water shortages. Save the Children was able to respond immediately because it had built a crisis modifier into its ECHO funded project.

The PILLAR Project

The Preparedness Improves Livelihoods and Resilience project, (PILLAR II), was implemented by Save the Children UK and US between November 2009 and April 2010. The project aimed at enhancing community resilience and capacity to cope with drought risk in six districts of the Somali and Afar regions of Ethiopia, by piloting disaster risk reduction (DRR) initiatives. The project also provided emergency response to drought. At the project design stage SC UK had recognised the inevitability of drought-induced disasters in the project area, and had decided to build a crisis modifier into the project. The crisis modifier would allow project activities to be adjusted if drought conditions deteriorated.



Intervention districts of Emergency Response

In 2009, after the main rains and subsequent small rains both failed, the project immediately started early response activities in three districts, targeting over 10,000 households, based on the early indicators and reports. The project was able to respond rapidly and efficiently because of its crisis modifier, and at the same time sought additional contingency funds from ECHO to scale up the early response interventions.²¹ Some of the interventions that SC UK undertook to build the capacity of the communities, whilst reinforcing the responsibilities of government in line with the district level contingency plans, are explained here. The SC UK clearly experience highlights the importance of having contingency planning, as well as a community-based early warning system, to allow agencies to respond rapidly and efficiently to disaster.

Emergency livestock health interventions

Vaccination and mass treatment campaigns were carried out in the Chifra and Ewa districts of Afar region, reaching over 168,300 livestock belonging to 2,367 households. Vaccination at this early stage can reduce vulnerability to disease outbreaks, such as small pox, and substantially improve livestock resilience by eliminating parasites. The vaccination campaigns provided the district governments with an opportunity to improve their capacity for disease surveillance and provide veterinary services. The campaigns also stimulated the work of the community animal health workers (CAHWs) and their linkages with district offices, private pharmacies and pastoralist communities. The use of a voucher system was found to be very efficient, in terms of both the logistics and achieving coverage of the beneficiaries—reaching the livestock of the most vulnerable at a very critical time.

Livestock supplementary feeding

A supplementary animal feeding program was set up for 1,200 households in Shinile district. Each household received 50kgs of wheat bran with which to feed their weak cattle. In Chifra district the feeding focused on 400 of the most vulnerable households who owned the fewest animals—targeting the sick, lactating and/or pregnant livestock for a maximum of a month. Beneficiary households were identified through public meetings, and from the recommendations of community leaders and elders, in line with the national guidelines for emergency relief interventions. The supplementary feeding ensured a significant number of livestock were not lost.

Water rehabilitation

During the seasonal assessment of mid November 2009, several of the available water points were found to be non-functional—either because they had dried up or because of poor management, lack

21. All the interventions were carried out by the project beginning in late November 2009 through the crises modifier, and from mid January 2010 through the additional funding. The emergency livestock health and some of livestock supplementary feeding interventions were carried out in November and December with the remaining activities implemented from January-April 2010.



Supplementary Feeding support in Shinile, Somali Region.

of minor maintenance and lack of tools and spare parts. In Chifra some communities were travelling 10 to 12 kms to fetch water. A total of eight of the non-functional water points were maintained within the first three months of the drought emergency (i.e. Dec'09 to Feb'10) benefitting over 34,941 people. Four motorized pumps were maintained in Ewa, and two motorized pumps and two hand pumps were maintained in Chifra.

The water rehabilitation support improved the water coverage of Chifra district by 3% and Ewa by over 8%. The intervention also encouraged the local government to carry out regular monitoring of existing water points—enhancing district level planning for assessing stocks of tools and spare parts, and planning routine maintenance. To ensure sustainability the project trained 103 Water User Committee (WUC) members, drawn from over 10 water points, in water and sanitation, management and minor maintenance skills. According to woreda officials the training reduced the frequency of complaints coming from communities about damage and requests for minor maintenance. The support also helped women by reducing the distance they needed to travel to fetch water.

Livestock diversification

Over 220 of the very poor pastoral households from targeted districts were given a donkey and two 25litre jerry cans to

help reduce the burden of transporting water. This would also enable them to earn some income and increase their asset base. Most beneficiaries were female-headed households and very poor families with a large number of dependents—where the women and girls had to fetch water from distant places. Other livestock diversification support included the provision of a few camels to cereal trading groups located in remote areas in order to stabilise grain prices and promote access to grain for the wider communities.

Zehara Ali, 42, a widow with 9 dependent children from Chifra, was the recipient of a donkey:

“Prior to the project support I used to live on aid and the meagre income that I got by selling hay. I do not get any support from relatives or other community members, and was excluded from the community’s self help system. I collected hay from long distances and carried it on my back to bring it to market. After I received the donkey from the project I started to transport and sell water as well as collecting and selling firewood. My household income and livelihood has greatly improved.”

Recommendations for similar initiatives

A number of lessons were learnt through the implementation of the project, which are now being built into the follow on project, PILLAR PLUS. They include the elaboration of participatory disaster risk management and contingency



Traditional wells being upgraded



plans; the strengthening of the community based early warning system; and linking both of these with response plans based on historical disaster trend and seasonal calendars. Other projects in areas at high risk of drought might also want to consider the following:

The timely and appropriate emergency response was possible because of the availability of a crisis modifier within the existing project. This avoided delays in proposal redesign, approval and fund release, as well as the need for new agreements with government and communities at local level prior to implementation.

By having an established institutional set up and ongoing relationships with stakeholders on the ground, SC UK was able to be clear about what it would be able to do in the event of a crisis. This enabled it to co-ordinate its internal resources and link with other stakeholders, including the local government. There was also no need to have an additional operational agreement with the government, saving considerable time and energy at a critical stage.

Having a community based early warning system (CBEW) and a contingency plan in place provided a good basis for early response activities, and enabled the project to adapt its activities to the prevailing conditions. Targeting women in drought preparedness and response interventions, notably

through the pack animal and water access improvement initiatives, was felt to be particularly effective due to their vulnerability and work burdens. More attention should be paid to the roles of women and the impact of interventions on them in pastoral settings in the future.

The livestock supplementary feed was procured from a pastoralist cooperative organised by FAO in Chifra. This local procurement was rapid, and provided income to the local economy. It also strengthened the likelihood of feed being available locally in future interventions and reinforced the linkages between relief and development programming.

By working closely with local government and communities in the animal health and water interventions, their roles and responsibilities were reinforced and valuable capacity building experience was provided.

During this intervention, although it was necessary to provide supplementary feed for animals this is a very expensive strategy. For long-term mitigation it is important to find other ways of ensuring feed availability during dry periods. These include the use of drought reserves and communal enclosures can help pastoralists make hay for lean seasons.

For further information contact: abebe.z@scuk.org.et

Rainwater harvesting - DRR initiatives in Northern Kenya and Southern Ethiopia

Mohammed Dida, DRR Programme Co-ordinator Director, Cordaid

In the drylands of Ethiopia and Kenya where accessible underground water is often inadequate, rainwater-harvesting structures are being developed, together with communities, to mitigate water shortages during drought periods and to increase regular access to reliable water. This article includes case studies of four different rainwater storage structures: rock and roof catchments, earth pans and underground tanks.

Surface run-off harvesting as a DRR strategy

The lowlands of northern Kenya are arid and semi-arid lands (ASALs), with highly variable and uncertain (erratic) rainfall—ranging from 150 to 200mm per annum. Temperatures can rise to as high as 40 degrees Celsius in the driest months of the year, and climatic hazards such as droughts and flash floods are common phenomena.

Inhabitants of this region are mostly pastoralists, with the Gabbra, Somali, Samburu, Turkana and Borana being the predominant pastoralist communities. In this area of northern Kenya the poverty level is 81%—far above the national level of 54%. A key cause of this poverty is inadequate water supplies for livestock and human use. Kenya is a water-scarce country and it is also now widely acknowledged that in many areas the potential for accessing the water table through boreholes and wells is no longer viable.

Since 2000 Cordaid and its development partners in Kenya have been working with target communities in developing and learning from appropriate drought disaster risk reduction strategies, and exploring the options for harvesting, storing and managing rainwater. The strategies include berkads (also known as underground tanks), sand dams, rock catchments and earth pans. These old, simple and cost effective technologies are now operational for a number of vulnerable pastoralist communities in both Northern Kenya and Southern Ethiopia.

With appropriate technologies becoming a priority in the ASALs, the strategy has prompted a considerable investment in capacity building for rainwater harvesting.

Rainwater harvesting technology is based on directing surface run-off to different types of storage structures. Where the potential has been found to exist, these structures are fairly simple and easy to construct, and can be managed and maintained by local communities to meet their water needs during times of drought.

However the water may still need to be treated for human consumption. Successful rainwater harvesting can also sometimes address other major strategic needs, for example by opening up previously unreachable vast pasturelands and thereby helping minimise conflict over resources.

Pastoralist communities are selected where the potential for rainwater harvesting has been identified through community resource mapping, as well as from feasibility studies and technical assessments.

Among the selected communities, permanent water supplies will have been non-existent, not viable or inadequate. Harvested rainwater is used to fill in the gaps or expand the accessibility for the most needy, with the structures themselves managed by committees selected by the target communities.

Case Study 1: Dry season water reservoir - Afkaba rock catchment

Afkaba is situated at the foot of the Hurri Hills, within a rich tick-free pastureland that is usually uninhabitable and inaccessible due to an acute lack of water. Prior to the Cordaid intervention the rangelands remained under-utilised throughout the year as the alternative and only water source was Kalacha oasis, which is over 60 kilometres away. The rain-water harvesting project was initiated by the local community, and jointly funded by the Constituency Development Fund (CDF), Caritas Austria (CA) and the European Commission Humanitarian Aid Department (ECHO), with CORDAID, through the Pastoralist Integrated and Support Programme (PISP). The project was planned and implemented in phases, requiring considerable patience and tapping of all available resources from both the community and the NGOs. The community contributed 20% of the cost. The initial phase consisted of feasibility and technical studies. The final phase of the project was completed in the 2008.

Afkaba now has a dry season water reservoir. This 23,000m³ rain-fed reservoir has reduced the distance travelled from pasture to water from 60 to 10 kms, with the time spent travelling down from 10 hours to 1hour. Over 70,000ha of previously unused rangeland has been opened up to pastoralists in the dry season, thereby greatly enhancing their resilience to drought. The reservoir is directly benefitting about 2,000 people and 11,000 livestock—mainly dairy shoats and load camels—for a period of 5 months in the year. Among the key beneficiaries are also a culturally important group called the Yaa Garra (a traditional council of clan representatives' elders that form the centre of religious and political activities in Gabbra society) whose cultural beliefs restrict their ability to be mobile to access scarce resources.

The reservoir cost 3,638,092KSh (€ 36,380) to construct. The construction works involved de-silting and expanding the natural reservoir to double the capacity; constructing a weir (concrete wall); and creating a filtering system that connects siphoning piping to twin troughs and one community water tap. The success of the project was celebrated during the short rains in November 2008 when the reservoir managed to harvest rainwater to full capacity. The intervention has reduced the previous travel time to the nearest permanent water point in Kalacha considerably, and has had a tremendous impact on human and livestock health.

Case Study 2: Rainwater rooftop tanks – Marsabit Mountain

Marsabit Mountain experiences continuous water shortages—often to life-threatening levels. Normal livelihood activities become disrupted, with schools frequently facing closures. Women and girls have to travel long distances and spend valuable time collecting water from 10-30 kms away, often spending nights outside their homes. The only permanent water source is a spring on the mountain, which was developed over 50 years ago to support 2,000 people. This spring has been drying up in recent years due to the growing impacts of drought and the over extraction of water resources to meet the demands of the increasing population. Currently the population of Marsabit town stands at over 40,000 people, far beyond the water supply's capacity. The crater lakes in the forest that contribute to the yield of the spring have long since dried up, exacerbating the water stress, even though the forest on the mountain is protected.

At the time of the Cordaid intervention, water had been rationed for the past three years at 40 litres per household for every 3 days. A 20-litre jerry was costing 40 Kenyan shillings (equivalent to € 0.5). As a result the community was suffering from water, sanitation and hygiene related problems. The earth pans found in the lowlands were being emptied quickly due to competing demands for water between the settled communities and the semi-mobile pastoralists. Water-related conflict was being experienced both on the mountain and in the lowlands, with worst affected segment of the population normally the school-going children. Schools were

either opened late or closed early due to water crises, affecting individual learning and the overall status of education in the district.



Under the ECHO/Cordaid funded Regional Drought Risk Reduction Programme, schools are made a specific target to reduce their water stress and enhance children's learning. In Marsabit Mountain, Cordaid's partner PISP has now constructed a number of rooftop water harvesting tanks (of 60m³ capacity), as well as sanitation facilities for 8 primary and secondary schools, with a population of 1200 pupils (500 girls and 700 boys). This intervention has ensured continuity of learning and has also made the school feeding programme possible. As a result these schools are now able to complete their full 3 month term sessions, and are recording an increase in school attendance and a reduction in drop-out rates of 5%. The tanks cost Kenya shillings 820,000 (equivalent € 8,200)

Case Study 3: Earth pans- Dukale

Dukale village is on the Ethiopian side of the remote border area between Kenya and Ethiopia. Surrounded by a steep escarpment, it is difficult to access water and pasture from across the border. The village is isolated and rarely visited by government or development agencies, and is therefore cut off from essential services. The lack of an access road also contributes to their increased vulnerability to drought and food insecurity. The current human population is about 552 households, or approximately 3,312 persons, including around 26 internally displaced households who are survivors of drought and insecurity. The current livestock population stands at about 4,572 cattle, 600 shoats, 500 camels and 484 donkeys. The donkeys are the only mode of transport. During the 2005 drought over 100 donkeys succumbed to water, pasture and loading stress. This village was facing many challenges related to water scarcity—including loss of livestock, water borne diseases, increasing workloads for the female family members, and conflicts with neighbouring communities in Kenya.

The decision to construct earth pans to alleviate the village's water problems came from a participatory disaster risk assessment and planning process, facilitated by Cordaid's partner CIFA. This assessment was undertaken jointly with neighbouring communities in Kenya. It was decided to construct three medium size pans in phases. The first 10,000m³ pan was constructed in 2007, with the second



pan of 15,000m³ capacity constructed the following year to maximise on the catchment area's potential to collect adequate run-off. The most pressing need for the second pan was to separate human and livestock access to reduce contamination, while also increasing the community's water requirements by a further 15,000m³. To consolidate this gain and improve water quality further, a simple filter well system was piloted at the domestic pan. The pan has now reduced the turbidity and has reduced the distance travelled to collect water from 20kms to less than 5kms—cutting both the workload and the stress for the livestock and villagers. The two pans cost 2,000,000Ksh (€20,000) and 3,200,000Ksh (€32,000) respectively.

Case Study 4: Underground tanks - Forole

Forole is a rocky mountain in Northern Kenya about 1,500m above sea level, inhabited by about 1,600 settled pastoralists. During one of the early community contacts, Mzee Sora, an elder, stated: "Our place has no water but has plenty of pasture. We rely on Magadho and Sake 40kms into Ethiopia. There is a small low-yielding spring on Forole Mountain, which produces 100litres per day in the dry season, but our women compete with the baboons for the water. The water is dirty with monkey waste, but we use it as we have no alternative. During severe droughts we get support from government and NGOs bringing water by tankers, but it is not enough."

Forole, like much of northern Kenya, is characterized by water scarcity. The efforts to drill boreholes have failed to yield water. In 2000, PISP facilitated a group of elders to go on a learning tour to several southern agro-pastoralist communities where rainwater-harvesting efforts had succeeded using underground tanks. Within a period of five years over 30 rainwater underground tanks with capacities ranging 100m³ and 150m³ were constructed in a partnership between the Forole community and PISP. The tanks serve a total of 1,800 people and 3,000 small livestock for a period of 6 months after the rains. Other development agencies have now visited to learn and replicate the technology in other parts of the district, as well as the neighbouring districts of Moyale and Wajir.



The dome-shaped reservoirs serve as water storage facilities for emergency water trucking during critical drought periods. The 100m³ sized tank costs 1,130,000KSh (€11,300) to construct, with around a third of the cost spent on water for construction. The community contributed 30% of the cost for each tank. The communities elected 7 committee members to oversee revenue collection, allocation of water for various needs, mobilizing the community and resources for maintenance, and the trucking of water during the times of acute need. Each household contributes 500KSh for water monthly. Prior to the onset of rains, the tank committees mobilise community members for de-silting and clearing of tanks to minimise contamination.

The Cordaid project's key achievements

The successful phasing of the Cordaid DRR programme has enabled the various project activities to be completed at different times—maximising the contributions from the many partners. In this way the short-term funding facilities have contributed to more longer-term development solutions. Both the long and short term planning processes i.e. the development plans and the immediate contingency plans, have been made possible by the commitment from the communities involved, and by the community contributions. The training of community artisans has also made available the necessary skills to replicate rainwater-harvesting tanks at the household level.

In the Forole community particularly, the community has earned itself particular recognition within the region for its exceptional work, and is now a community demonstration and learning site. The initial idea, adopted from outside the community, was successfully piloted, replicated, and modified to meet their specific needs. The community have now hosted community visitors from Ethiopia, Southern Sudan, neighbouring communities in northern Kenya and also northern Uganda. The documentation of success stories into videos, booklets and posters have aided community education and awareness campaigns. It has also made information sharing and dissemination during training easier.

The ongoing challenges in providing water to pastoralists The quality of water provision remains a major concern to Cordaid. Sharing of water with livestock from the same open source is a common practice among pastoralists, but livestock and wildlife contaminate many water sources making them unfit for human consumption. Simple measures

to separate the water used for livestock and humans, like constructing livestock water troughs and infiltration units with water points for humans, can contribute substantially to water quality management and reduce the incidence of waterborne diseases. Communities can also put in place good environmental management plans, such as fencing off the whole catchment area, which also conserves soil and preserves the pasture.

Another critical challenge of rainwater harvesting in the ASALs is dealing with the complex rainfall patterns. The seasonal rains are short and erratic, and sometimes result in flash floods. The variability of rainfall patterns in space and time sometimes leads to inadequate water harvesting by these structures. But by stepping up both the capacity for rainwater harvesting and management it should be possible to curb and mitigate the impacts of recurrent drought.

But water is not the only development problem in ASAL areas. In the long-term large scale investment in other physical infrastructure, and improved education standards, will be necessary to increase the participation of pastoralists in the larger market economy. This will in turn cushion their livelihoods against extremes of climatic and economic downturns, and enable them to further participate in their own water development strategies in the future.

Good practice principles on water development in the drylands are available at: [http://www.disasterriskreduction.net/projects-and-activities/detail/?dyna_feffuid\]=191](http://www.disasterriskreduction.net/projects-and-activities/detail/?dyna_feffuid]=191)

For further information contact: m.dida@cordaid.or.ke



Women collecting water in Marsabit

Participatory natural resource management with pastoral and agro pastoral communities in Shinile Zone, Somali Region, Ethiopia

Holly Welcome Radice, Maria Ruiz-Bascaran, Dr. Yosef Seyoum and Redwan Getachew, Save the Children UK Ethiopia

Mobile pastoral communities have been coping with changing environmental conditions for centuries. However, changes to their environments in recent years—including the increasing frequency of drought, land fragmentation and natural resource degradation—is increasing their vulnerability. One option for pastoralist and agro pastoralists is to build on their adaptive capacity and resiliency using a response that is closely based on their skills in managing natural resources.

Save the Children UK (SC UK) has been working with communities in the Somali Region of Ethiopia to help protect their assets and improve community preparedness for hazards for 20 years. Shinile zone is an arid area located in the extreme east of Ethiopia bordered by Djibouti to the northeast. The population is mainly Somali and pure pastoralism is the most prevalent livelihood.²² Shinile Zone has experienced a number of droughts over the past two decades. Although long-term meteorological data does not exist for the Zone, the community perception is that there are climatic changes. The changes noted are rainy seasons shortening during the last decade, and rain frequency, distribution and predictability decreasing. Shinile community members also state that daytime peak temperatures now occur earlier than in previous times.²³ In addition to these perceived changes, the quality and quantity of natural resources in the Zone are declining due to deforestation, encroachment of exotic species, and soil and rangeland degradation.

Participatory NRM in two districts of Shinile Zone

In 2007, SC UK began to work with pastoral and agro pastoral communities of Shinile and Dembel districts in Shinile Zone to explore lasting solutions to their natural resource problems. The methodology utilised was adapted from the Flintan and Cullis "Introductory Guidelines on Participatory Rangeland Management"²⁴. SC UK worked with 23 communities following a comprehensive participatory process, including stakeholders' assessment, the development of community action plans (CAPs), the establishment of community level development committees, NRM (natural resources management) training, NRM activity implementation, and experimentation and innovation.

The CAPs in Shinile Zone included actions that would address both immediate and long term needs, for example:

Immediate cash transfers to impoverished communities:

Some activities were undertaken through Cash for Work (CFW). In 2008-2009, beneficiaries received ETB 140 per household representing 2% of minimum food needs or 3% of the estimated total income of poor households in the 2009-10 year for only 10 days of work.²⁵ CFW schemes were conducted during the dry, hungry season and cash earned helped to protect productive assets and was used for household food purchases.



Participatory NRM mapping

22. Save the Children UK and Disaster Preparedness and Prevention Agency. 2008. *Livelihoods and Vulnerabilities – An Understanding of Livelihoods in Somali Regional State, Ethiopia*.

23. Riché, Béatrice et al. 2009. "Climate Related vulnerability and adaptive-

capacity in Ethiopia's Borana and Somali Regions" Care and Save the Children UK. Addis Ababa, Ethiopia.

24. See documents page of www.elmt-relpa.org/aesito/HOAPN



Planting Seedlings

Recuperation of lands:

Hundreds of hectares of land that had been abandoned due to the encroachment of invasive species, soil erosion and degradation were converted to productive uses.

Increased access to food:

Rehabilitated land was used for cultivation and improving grazing in degraded areas. Both uses had a direct effect on increasing access to grains, fruits, vegetables and milk at household level. Alternative income sources: Additional income was generated from the sale of horticultural products and fodder seeds. For example the sale of watermelons, cultivated in irrigation canals, to truck drivers along the international Ethiopia-Djibouti highway.

Community owned initiatives/increased self-reliance:

Some communities expanded their NRM activities by themselves, without the support of SC UK. For example the clearing of prosopis after the support from SC UK had ended.

Key lessons

From the CAP implementation in Shinile and Dembel districts it became clear that:

Promotion of innovation & experimentation works:

Communities in Shinile Zone had observed the degradation of key natural resources in their localities for years. These communities have now realised that small-scale community led efforts can bring immediate results and improvements to their livelihoods. The CFW scheme gave some communities the confidence to tackle NRM issues in an organised manner on their own. Embracing indigenous knowledge to find solutions to local problems through trials, gave clear examples of the importance of innovation. Examples of innovation include the use of prosopis for firewood, fencing, and charcoal.

Involvement of women, children and local officials throughout is key:

Each community is a unique group of people with different needs, priorities, and relations to natural resources. Bringing together and consulting different groups within the community brings together these varying perceptions and needs. The meaningful involvement of women in the project committees has clearly shown the communities and local officials that women are effective decision makers. Children in Shinile Zone have a close relationship with natural resources as their household duties include natural resource use. As a key stakeholder in NRM they can contribute positively to the development and implementation of the CAPs. Having the local government involved has been important for sustainability, transparency and connecting the community to government initiatives and resources. Some communities were also able to receive support from the local government in achieving their CAPs.

CAPs provide a tool for different groups within communities to engage:

While the communities in Shinile Zone have traditional means of managing natural resources, collective action towards problem identification is not always done with mixed gender and age groups. Through the CAP process each participating community member could see, discuss and comment on NRM. This not only facilitated discussions at the community level, but also externally when two communities bordering each other engaged in the joint planning of CAPs after acknowledging the interrelationship between them.

Complementary programming or competing methodologies?

National safety net programs are also engaged in NRM activities under 'Temporary Employment' and 'Public works'. This has created some confusion for SC UK teams and partners on the ground, as approaches are not exactly the same. Safety Net public works seek to build community assets, which are connected to conditional transfers. On the other hand, PNRM with CFW components seek to promote participatory management of natural resources, supported by sporadic injection of immediate cash assistance to communities. The safety nets CFW approach could undermine some of the principles of PNRM, mainly when it comes to the ownership of the CAPs. This challenge was overcome through intense discussions within the team and with stakeholders, and will need further revision in future programming.

Adapting CFW to the pastoral context essential:

To make the most of CFW schemes in pastoral areas there needs to be great flexibility in allowing for changes in



Collecting Hay

household targeting according to individuals assigned for tasks, periods worked and tasks completed by beneficiaries. Without this flexibility, the intended beneficiaries may not be reached (e.g. the poorest and women). The works to be done, and the dates and timeframes for those works, needs to be agreed with the communities and woredas to have the greatest impact and minimize interference with the seasonality of livelihood strategies—whether agricultural, livestock or the other income generating activities that are available. Additionally it is important to be sensitive on ‘push-pull’ factors for settlement through such programs. SC UK believes that short-term CFW schemes, such as these, serve to inject cash at critical times for improved household economic security on a temporary basis only.

Looking Ahead

The communities, local government officials and SC UK have seen a range of benefits from the NRM activities implemented in Shinile Zone over the past four years. However the process has not been without its challenges. Participatory NRM is a new activity for SC UK and its local partners. Though the NGO has years of experience working with communities in the Zone, PNRM required building up new technical skills, particularly in relation to technical NRM issues. SC UK is continuing to invest in training of staff, communities and local government to do sound NRM implementation that takes into consideration all the potential impacts—whether negative or

positive. SC UK, with its strong links to the local government, may have given less focus to traditional/customary institutions in the early stages of the NRM work in Shinile Zone and will strengthen this in future.

Working with communities on participatory NRM has provoked much discussion on land use, rehabilitation and management, all of which are crucial components of an effective disaster risk reduction (DRR) strategy for the drylands. Thus DRR discussions must increasingly recognize the importance of access to land, natural resources use and the need for mobility in order to promote and preserve resilience and adaptive capacity, as well as community based preparedness. Participatory NRM can be a first step in this process.

A **REGLAP** Technical Brief on this project is available at: [http://www.disasterriskreduction.net/projects-and-activities/detail/?dyna_fef\[uid\]=191](http://www.disasterriskreduction.net/projects-and-activities/detail/?dyna_fef[uid]=191)

For further information contact: Peter Muhangi, Head of Hunger Reduction peter.m@scuk.org.et

‘Broken Lands: Broken Lives’ - Causes, processes and impacts of land fragmentation in the rangelands of Ethiopia, Kenya and Uganda

Fiona Flintan, independent consultant

In this new report commissioned by REGLAP, the alarming rate of conversion of communal rangeland to other uses is found to be a major threat to resilience and climate change adaptation among pastoralist communities throughout the region.

The fragmentation of the rangeland in Ethiopia, Kenya and Uganda has restricted access to key resources—in particular dry season grazing areas and water sources—seriously compromising the ability of pastoralists to overcome drought. If this fragmentation continues the whole pastoral system is likely to collapse, as without access to these key areas pastoralists are unable to sustain their production.

REGLAP's report on the causes and impact of land fragmentation on pastoral livelihoods is aimed at: raising awareness on the change in land use in pastoral areas, and its affect on resiliency; highlighting the need to protect communal grazing areas and mobility as part of an effective and productive rangeland system to reduce vulnerability and enhance adaptive capacity; identifying gaps in research to provide the evidence base; and providing recommendations for advocacy and engagement in terms of policy change and/or implementation and practice.

Key Impacts:

Land fragmentation is resulting in a redistribution of livestock from the poor to the rich Better-off pastoralists, with assets, are more able to make the most of opportunities created by trends of land use change in the rangelands—and in some cases are driving land use change themselves. They can influence decision-makers and land allocations, pay for the enclosure of lands, build up their herds and further accumulate wealth to invest in new livelihood diversification activities. For the poor and less powerful, land fragmentation can have critical negative impacts.

As they become unable to access the common property resources upon which they relied, competition and conflict over resources increases—often with loss of life; they also lose control over their lives and are increasingly vulnerable to crises such as drought, unable to protect their remaining livestock. This redistribution of livestock due to land fragmentation is

a key factor in explaining why pastoral areas can often be exporting increasing numbers of livestock at the same time as having increasing levels of destitution.

New values and practices, focusing on the exclusive acquisition of assets for profit, are in conflict with the pastoralist culture of ‘sharing’ and mutual support

Mechanisms of resilience that have been built up by pastoralists over centuries—including adaptive strategies, mutual support and informal safety-net systems, and social/customary organisations and institutions—are being challenged by the multiple internal and external factors affecting land use change and fragmentation. The pastoralist traditional values like solidarity, cooperation, reciprocal arrangements and collective wealth, are being undermined by land fragmentation.

Customary institutions are struggling to control land fragmentation

In pastoral areas communal directives are being ignored with individuals now planting crops and putting up enclosures. Herders who have been prevented from accessing grazing areas by community leaders are now petitioning local government offices directly and returning with formal permission to use these areas.

The customary institutions, which are already having their authority over management of resources challenged by their youth, are therefore being weakened further by land fragmentation. In order to re-establish their power, customary leaders may look for new alliances and arrangements both inside and outside the community.

Fragmentation creates additional vulnerable groups

As the local resource base contracts, and informal safety nets and social support systems are less able to support community members who lose their assets, new categories of vulnerable groups are being created.

Land fragmentation and some of the more positive trends - by country

Ethiopia Parts of Ethiopia have experienced heightened land fragmentation since the 1970s. The development of government and commercial irrigated schemes in the Awash River Basin, the water/rangeland development schemes in Somali region and in Borana, and the government or private ranches in Borana, all have fragmented the rangelands. In 2009 the Government launched plans for agricultural investment areas in several regions to a total of 3.7 million hectares.

The evidence to date suggests that much of this will be in pastoral areas along rivers, appropriating essential pastoral dry season grazing areas and preventing access to water sources. Other threats to mobility come from the many oil and mineral explorations, the building of dams, and the establishment of linked irrigation schemes for sedentarised communities (including ex-pastoralists).

A number of positive trends also exist in Ethiopia however: there is a growing awareness of the value of pastoralism as an effective livestock production system, and pastoralists have been able to increase their voice in decision making processes at national, regional and local levels. The establishment of land policies and legislation by regional governments offer opportunities for addressing many of the insecurities that pastoralists face, and the securing of rangeland resources for them.

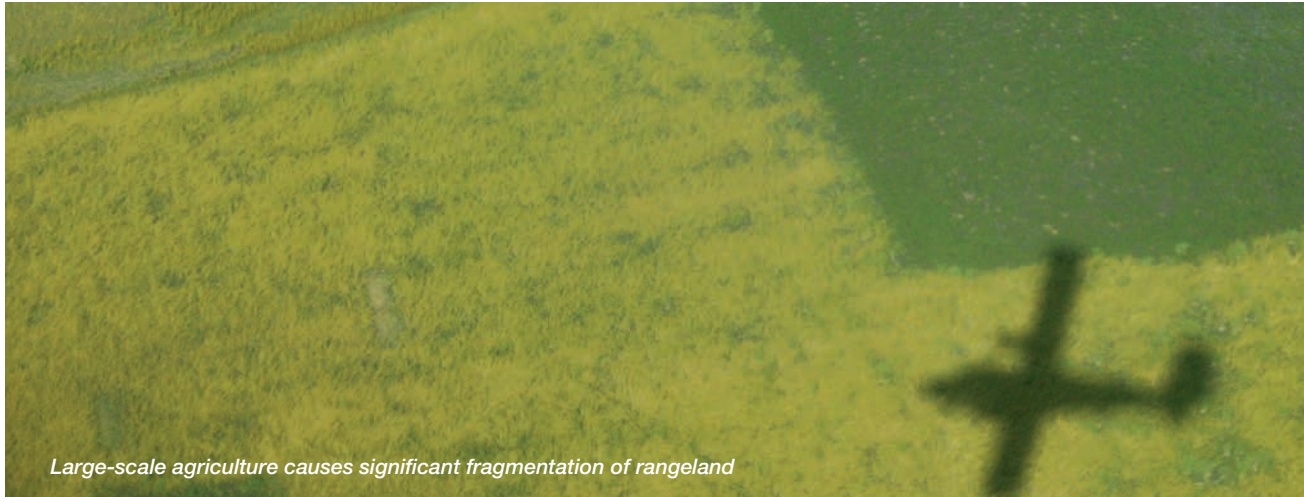
Kenya Pastoralists in Kenya have experienced negative interventions since colonial times, when the then government introduced a number of 'development' schemes that encouraged sedentarisation, privatisation of resources, and a breakdown of pastoral systems. The group ranch system commenced a process of land use change that eventually led to rangelands being carved up into individual landholdings.

Today only one group ranch remains undivided in Kajiado District. The dependence on wildlife as part of Kenya's tourism development has led to conservation protectionism that has marginalised pastoralists—in spite of their ability to successfully coexist with wildlife. Corruption within the land administration has also provided fertile ground for inequitable land allocations, favouritism and a frenzied land grabbing often by town-based land speculators.

An active civil society in Kenya has enabled pastoralists to gain some attention however, and several court cases found in their favour have helped them gain back their lost lands. Many land users (including ranchers, pastoralists and conservationists), are now realising the dangers of land fragmentation and are reconsolidating small parcels, brokering agreements, and identifying multi-land use systems. But there is still enormous room for further progress, and new development schemes including the proposed LAPSET (Lamu Port-Southern Sudan-Ethiopia Transport) Corridor are still a risk to pastoral areas. The new Land Policy and Constitution both offer great opportunities for securing better rights to resources for pastoralists, as does the new Ministry of Northern Kenya and Other Arid Lands and the strategies it is promoting.

Uganda British colonialists established 'development interventions' and administrative boundaries that undermined, if not destroyed, pastoral production systems and divided pastoral groups. Successive governments have continued to pursue the sedentarisation of pastoralists through the establishment of ranches, evictions of pastoralists from their lands, forced settlement, restrictions on mobility and biased service provision. An extensive network of protected areas has further limited pastoral production systems, and the possibilities of mineral discoveries in some parts have led to extensive land grabbing. In pastoral Karamoja the growth in violent conflict and increasingly commercialised cattle raiding, is aggravated by the often-inappropriate responses of government authorities to land issues. The Bahima in the southern part of Uganda's 'cattle corridor' have also experienced one eviction after another as they have tried to find space for themselves and their livestock.

Though some facilitating policies do exist, few local people are aware of them. Pastoralists are unable to influence decision-making processes and in particular those concerned with commercial investment. The land tenure system needs to be revised to match the actual ways that land is being used for production including the facilitation of livestock movement. The new draft Land Policy (2011) is a very positive step towards this and an important starting point for engaging with government on securing rangelands for pastoralists.



Large-scale agriculture causes significant fragmentation of rangeland

These include asset-poor households; small stockowners; families without working members or with too few working members for example to collect water from far-off water points; widows; aged persons; and households with limited access to social networks.

Increased competition over remaining grazing lands creates regular conflict hotspots. As good quality grazing lands are reduced by fragmentation, groups who were once allies are now in conflict over land access. With local institutions for conflict resolution and jurisdiction based on customary law becoming increasingly ineffective, and little being done to set up institutions in the vacuum created, today's rangeland management practices are being seriously compromised. As land-related conflicts fail to be solved, the levels of conflict within and between groups rises, further threatening the social cohesion of pastoral clan society and weakening its risk-averting strategies.

Women are losing out

Women and men experience land tenure changes differently. When land tenure is formalised, women have not automatically benefited, and in some cases have lost out. For example the establishment of group ranches marginalised women in particular. A lack of available males—due to their taking livestock on protracted migration routes, or out-migration to find town jobs—has had an impact on gender relations. Women are now often left as 'de facto' heads of their households without the decision-making power or a voice in community discussions. Although sometimes gaining from new opportunities to earn income, many women are feeling highly insecure about the future.

Pastoralist production levels as a whole will decline

The loss of adaptive management strategies increases production risks—not only for individual herd owners, but also for pastoralism as a whole. Without controlling mechanisms and institutions, common property will become open access with over-exploitation likely. Land uses that are incompatible with wildlife are also increasing. Though community-based

responses to conflict and peace-facilitating activities have had some success, the root cause of land insecurity and continuing loss of access to land and resources is not being addressed. This is to the detriment of individual countries and the whole region.

Recommendations

The land fragmentation report makes a number of recommendations, including: A better understanding of the causes, trends and impacts of rangeland fragmentation is needed to enable more informed decisions about how best to slow and prevent such fragmentation, and how best to deal with its negative consequences. Specific research gaps needing to be filled include:

- Information on land fragmentation in certain geographical areas;
- Empirical data on the impacts of land use change on pastoral livelihoods and strategies in times of drought;
- The processes of sedentarisation under different circumstances and in different contexts;
- Gender differences and issues;
- Clarifying the most appropriate land and resource securing system(s) that can best support pastoral rights and livelihoods.

The protection and securing of stronger rights to land, resources and mobility for pastoralists is sorely needed. National governments, donors, the African Union and regional bodies, NGOs/CSOs, pastoral local leaders and communities can all play a role in this. Land issues should be incorporated into vulnerability assessments, as well as drought crisis preparation, management and response processes. Mobile pastoralism needs to be the cornerstone of integrated poverty reduction programmes, and the building up of resilience for pastoralists.

The summary and full report are available at:

http://www.disasterriskreduction.net/projects-and-activities/detail/?dyna_feffuid=191

Reinstating traditional rangeland management using community-managed DRR

Woldehanna Kinfe, Cordaid, Ethiopia

This article explains how community managed rangeland reclamation has helped strengthen resilience to increased climate variability in Borana, Southern Ethiopia by reinstating proper management of the traditional ‘kaloo’ reserve pastureland. Conserving communal grazing reserves is one of the few known options for having access to good pasture during the alarm and early emergency periods of a drought.

This revival of reserve rangeland reclamation work can be extremely significant when measured in terms of increased access to pasture, and improved resilience of livestock keepers to feed shortages in times of drought. The reserve pastureland can reduce the impact of severe drought by 30-60 days, depending on the size of the reclaimed reserve pasturelands and the number of livestock using it. The revised system also includes users’ rights—preserving its traditional communal nature and discouraging private appropriation by powerful pastoral elites.

Reinstating the ‘kaloo’ system in Mana Soda community

Rangeland degradation is a major problem in Borana, seriously affecting the livestock-based livelihood of its pastoralists. The productivity, quantity and quality of the Borana rangelands are being significantly reduced due to continuous degradation. Both pastoralists and rangeland experts agree that the major causes of the rangeland degradation are the weakening of traditional rangeland management, climate variability, increased population and changing land use—including the extension of farming into agriculturally marginal areas. A study conducted in Borana zone estimated that the vegetation coverage on the rangeland reduced from 52% to 40% between the 1990s and 2001. During this period changes in the levels and patterns of rainfall resulted in the vegetation cover being converted into bush land.

The Borana traditionally conserved areas of pasture for severe drought periods by selecting, enclosing and setting aside areas of productive rangeland. These would become available for communal use during drought, and were referred to as Kaloos. Depending on the severity of the drought, and the availability of pasture in the open grazing areas, Kaloos would be made available for breeding stock, for weak animals, or if necessary for a substantial number of livestock regardless of age, productivity potential or species. Over the past few decades the traditional management of the Kaloo system has weakened for a variety of reasons. According to the Borana this is often due to the appropriation of Kaloos by pastoral elites, and inappropriate settlement. The recurrent droughts of late have also discouraged pastoralists from looking after the

Kaloos as their bush clearing efforts have become ineffective. Altogether these factors have resulted in the quantity, size and geographical distribution of Kaloos being significantly reduced—greatly increasing the risk of livestock loss during drought.

The Mana Soda community in Borana recently undertook a CMDRR process supported by Cordaid. A Participatory Disaster Risk Assessment (PDRA) process identified recurrent drought as their major hazard, and community members recalled that conserving Kaloos was previously the most effective way to reduce the effect of drought on pastoral livestock grazing resources. The reclamation of degraded reserve pastureland was then identified as their key measure for mitigating livestock feed shortage. During the PDRA process the abandoned, bush-encroached and highly degraded reserve pasturelands were mapped, and priority sites selected for enclosure and reclamation. As part of the process a number of other issues were discussed in depth, including: the importance of the reserve pasturelands in supporting the livestock based livelihood system; the importance of community resource mobilisation (labour and hand tools); and the setting up of by-laws for future management of reclaimed pasture to ensure that the Kaloos would only to be opened at times of severe drought (alarm and early emergency phase) and only for selected livestock groups.

Over the past two and a half years the Mana Soda community have reclaimed and improved the productivity of Kaloos in three clusters: Rera Chebchia – 250ha, Rera Quala - 200ha, and Rera Baha 800ha. One year after the reclamation work began, adaptive grass seed (Rhodes grass), was sown to improve the productivity of the rehabilitated pasture and to increase its density. The Adami Tulu Research Centre provided technical support to the rehabilitation work, through seed provision, capacity building for the core workforces, and on-site coaching. The plants in the reserved pasturelands/kaloos are now diverse in nature, and are a source of forage, fodder and browse for both large and small ruminants. The plant species are very much adapted to the adverse environmental

conditions. At 1,250 ha the total area of reclaimed reserve pastureland is now a feed source for 2,100 cattle, and 3,000 sheep and goats, for a period of one and half month during the dry season. Since the work was undertaken significant change in attitude towards rangeland management has been observed among the Mana Soda community, with plans already in progress for continuing the reclamation work. Learning from the fruitful collective efforts, individual households are also now starting to reclaim the pasture fields around their homesteads for calves and small ruminants.

The principles behind the CMDRR approach

Community Managed Disaster Risk Reduction (CMDRR) is an approach that can help a community identify the hazards they are exposed to, and design effective measures to promote resilience to them. Cordaid is supporting its partner organizations in Ethiopia, Kenya and Uganda in facilitating CMDRR. The tools of CMDRR enable the community to characterize the hazards, to assess their vulnerability level, to assess their internal and external resources, and to evaluate their assets and capacities in order to mitigate the hazard and reduce their vulnerability.

The CMDRR process builds on the community's existing knowledge and skills—which in the Borana case were their traditionally valued practices of rangeland management. By enriching and assimilating a community's traditional knowledge alongside modern techniques and insights, interventions can be much more effective. In CMDRR the intervention selected will usually require external technical assistance, but the management of the intervention—in terms of planning, coordination and implementation—will remain completely in the hands of the community. The community will make its own development plan to strengthen its resilience, and also a contingency plan in case the hazard strikes, thereby reducing the risk of hazardous events turning into disasters.

In Mana Soda community, the leadership and selected community groups were given CMDRR training and refresher courses, to enable them to become well aware of the CMDRR principles and process. With very little external support or facilitation they were able to conduct their own participatory disaster risk assessment and prepare a community action plan. The CMDRR approach allowed the local community to identify their most sustainable drought risk reduction measures and showed them how to mobilise existing community resources, whilst developing a positive attitude and the skills to resist adversity. In Mana Soda the engagement of the Adami Tulu Research Centre, regular capacity building of the community CMDRR committee, and participatory review and reflection meetings, all effectively supported the hard work of the community.

The CMDRR approach in Mana Soda guided the reserve pastureland reclamation and enclosure process. But as well as increasing community resilience to the recurrent effects of drought, it contributed in a wider sense to the preservation and improvement of rangeland productivity and bio-diversity. In other areas community mobilisation for this purpose could be part of a U-turn from rangeland degradation practices to more sustainable land use. Emphasizing the effectiveness of the CMDRR approach and their appreciation for Community Managed Rangeland Reclamation, one of the leaders of the CMDRR committee stated very succinctly that: “The alarm phase in neighbouring areas is now the alert phase for Mana Soda community.”

For more information contact: wkicor@cordaid.net

A REGLAP technical brief on CMDRR and good practice principles are available at:

http://www.disasterriskreduction.net/projects-and-activities/detail/?dyna_feffuid=191



It is not only the closure of the Kaloo during the growing period that facilitates the availability of pasture during severe dry periods, but more specifically its closure for a reasonably long period. The protection from livestock use, and the decision on the optimum number of animals as traditionally agreed by the community, explains the longer-lasting productivity of reserve pasturelands.

Cross border planning improves pastoralist resilience to drought in Kenya and Ethiopia

Hassan Hulufu, RREAD Co-ordinator, CARE International

With improved relations the sharing of natural resources based on customary laws has now resumed in many areas of the Kenya-Ethiopia border. But due to the degradation of rangeland there is still a need for interventions that improve rangeland productivity. CARE International's work with 12 cross-border communities has made a critical difference with communities now able to share their resources and combat drought.

Reciprocal resource sharing

The pastoralist communities living along the Ethiopia and Kenya border have been sharing pasture and water for centuries. The Borana, Gabra and Gari have a common language, and practiced reciprocal resource sharing in the past by migrating between the two countries as dictated by prevailing weather conditions. However, politically motivated boundary conflicts have increased in recent times and this has adversely affected mobility of pastoralists. This new development—coupled with increased human and livestock populations, lack of marketing and other livelihood development options and increased pressure on the natural resource base—has made these pastoralists very vulnerable to drought and other shocks.

The severe droughts of 1999/2000, 2004/2005 and 2008/9 led to vastly increased levels of pastoral poverty. While the cross border communities realized the need for dialogue to restore good inter-ethnic relationships and reinstate reciprocal grazing, other factors limited their efforts to interact across the international border: The presence of an active Ethiopian rebel movement in Kenya created suspicion between the Ethiopian Government and the Kenyan pastoralists, who are suspected of hosting the rebels, and limited the willingness of NGOs in Ethiopia to promote cross border interactions.

The role of CARE International

In the last five years there has been a change of attitude from both Ethiopia and Kenya towards cross border programs. This is partly due to the efforts of the Inter Governmental Authority on Development (IGAD) and its conflict management programme, in which cross border peace committees have restored good relationships between the communities. Governments and donors are also now appreciating the importance of rangeland degradation, as demonstrated by the allocation of funds to projects addressing rangeland improvements.

Under the Regional Drought Cycle Management decision of ECHO, many agencies are being funded to promote cross border drought risk reduction initiatives. CARE has worked in the Borana zone of Ethiopia and Kenya for many years, but its cross border programme only began in 2008. CARE International's approach to cross border programming has included the following steps:

- Identification of communities living along the border where cross border natural resource management activities could be piloted.
- Identifying and meeting with the informal and formal leaders of selected communities, as part of the community entry process.
- Carrying out a joint participatory disaster risk assessment with representatives of the cross border communities.
- Based on the disaster risk assessment developing a joint plan with the community to manage their natural resources in ways that reduce their vulnerability to drought.
- Involving local government technical departments during the process to provide support for implementation and the monitoring of community plans.

Rangeland improvement as a drought risk reduction measure

During the disaster risk assessments drought emerged as the priority hazard in all the cross border communities. The main effects of drought were identified as food and water shortages for humans and livestock, income losses and food insecurity.

The communities proposed the following interventions:

- The formation of cross border DRR committees;
- The training of community leaders on natural resource management;
- The identification and enforcement of grazing patterns (wet and dry season);
- The identification and enclosure of dry season fall-back areas for milking herds;
- Mapping of water sources and formulation of rules to guide access during different seasons for livestock and humans;
- The rehabilitation and improvement of water sources e.g. de-silting and lining of pans.

The activities above were implemented with support of CARE and technical support of the relevant government line ministries.

The impact of community DRR plans on community drought coping capacity

In March 2011, the RREAD Kenya team facilitated a participatory review of impact of the cross border natural

resource use plan and drought contingency plans in the areas with which they had worked. Although the findings of the review need to be verified via more in-depth impact assessments, they provide some initial indications of impact:

In Burduras and Hardura communities:

- Rangeland enclosure and restricted grazing ensured the availability of pasture for 3 critical months of drought. (The enclosure was opened in January 2011 and the pasture lasted until April, although water shortages meant the main herds from both communities migrated to the banks of the River Dawa in early March.)
- The regulation of 3 underground water tanks and 2 pans (1 each in Hardura and Burduras) delayed the need for water trucking for 2 months.

Godoma and Dokisu communities

- Access to pasture and browse on the Ethiopian hills by both Borana and Gari pastoralists of Godoma was increased. The main herd left in villages in Godoma was sustained successfully until the second week of March, whereas livestock deaths would have otherwise started at the end of January and beginning of February 2011.
- In collaboration with Moyale deedha council the committee negotiated with Merti-Isiolo pastoralists ensuring survival of 10 herds (with an average of 100 cattle each).

Iresteno and Qadaduma communities

- Enclosure and restricted grazing, and the migration of dry herds to the banks of the River Dawa, meant that:
- The water pans dried there at the beginning of March, extending water availability for humans and the milking herds by 2 months at a critical drought period.
- The enclosure opened in mid January 2011 and pasture is still available—without restricting its use by the dry herds the pasture would have finished by the end of January 2011.
- The negotiations by a committee of elders of Gurar

(Ajuran) Gari pastoralists from Iresteno and Qadaduma enabled water to be accessed from wells in Gurar, which were not previously accessible.

Future recommendations

Based on above results it is evident that community efforts to improve the regulation and management of water and pasture can improve drought coping capacity. In the long run the enclosed areas could also be improved through soil and water conservation practices to enhance pasture production. And where the enclosed area is degraded reseedling could also be carried out, as been tried on pilot basis with the support of Ministry of Livestock Production in some areas.

It became clear though the work that there is an imbalance between water resources and pasture in most of the cross border communities. Some pastures in enclosed areas are not very useful during dry periods due to the lack of water available for the livestock left within the villages.

Using water bowzers to provide water for livestock is an expensive option. Subject to the availability of ground water during dry periods, new boreholes could be developed—with strict regulations on access—that would be opened only during the drought period, as was the key recommendation during the review sessions. Existing pans could also be expanded or new ones developed, as in Burduras where 4 new small pans have been developed through food for work.

Overall the development of cross border NRM plans has helped promote the resilience of the communities to drought. However, there are very many other underlying causes of vulnerability that need to be addressed to promote resiliency in the long term—particularly increased investment and livestock marketing opportunities, the provision of basic services and infrastructure, and alternative livelihood options.

For further information contact: hulufo@csss.care.org



Denbe Korba pond is often one of the last water sources available in Moyale.



The Hyogo Framework for Action 2009-2011

Rhea Katsanakis, Associate Programme Officer of the UNISDR Regional Office for Africa, Nairobi, explains what progress has been made with the Hyogo Framework according to governments in Uganda, Kenya and Ethiopia. Although there is a need for CSOs, particularly in the drylands, to provide a reality check on progress and feed into discussions via mechanisms such as the local HFA monitor.

In January 2005, 168 governments at the World Conference on Disaster Reduction in Japan committed themselves to take action to reduce disaster risk, and adopted a guideline called the Hyogo Framework for Action (HFA) to reduce vulnerabilities to natural hazards. The HFA outlines priorities and principles to assist the efforts of nations and communities to become more resilient, and cope better with the hazards that threaten their development gains.

The United Nations International Strategy for Disaster Reduction (UNISDR) was created in 2000 as a co-ordinating agency within the UN system for disaster risk reduction. As such the ISDR Secretariat facilitates a biennial cycle of monitoring and reporting of progress on the implementation of disaster risk reduction priorities, with support from relevant partners at all levels. HFA progress reports assess national strategic priorities in the implementation of disaster risk reduction actions, and establish baselines on levels of progress achieved in implementing the HFA's five priorities for action. States are mainly responsible for reporting at country level, while regional inter-governmental organisations and institutions, international organisations, and the ISDR partners, are responsible for reporting at regional and global levels.

Taking a closer look at progress made in HFA implementation within Ethiopia, Uganda and

Kenya—the focal countries for ECHO's Drought Cycle Management Decision—all three now countries have national coordination mechanisms for disaster risk reduction/management in place. These are based within the Prime Minister's Office in Uganda, within the President's Office in Kenya, and within the Ministry of Agriculture in Ethiopia.²⁶ Uganda passed its DRM policy in April 2011, whilst Kenya and Ethiopia's are expected to be approved and enacted within 2011. All three countries also issue drought early warning bulletins on a regular basis, and disseminate them to DRM practitioners and end users.

In **Uganda** the Department of Disaster Management within the Prime Minister's Office continues to work with local governments and partners to establish District Disaster Management Committees (DDMCs), which in turn help to establish disaster management committees at lower levels. According to the government report, over 40 DDMCs are fully functional. Risk assessments are being utilised to inform rehabilitation and reconstruction programmes to minimise recurrences. Based on the national development plan, and its incorporation of DRR as an enabling factor, about 40 districts have acknowledged the need to include a DRR budget in their overall district budget. Now the National Disaster Preparedness and Management policy has been passed a strategy for implementation is being prepared.

²⁶ It should be noted though, that the draft revised National Disaster Risk Management Policy and Strategy in Ethiopia suggests the responsibility for disaster risk management be shifted to the Prime Minister's Office.

Kenya has mainstreamed Disaster Risk Reduction into all its sectoral and overall development plans. For example it is mentioned in the over-arching 'Vision 2030' and development plans such as that for Agriculture, focusing on elimination of hunger, food security, environmental protection through reforestation etc.—all of which have been embedded within the country's new Constitution. National and local risk assessments based on hazard data and vulnerability information are available, and include risk assessments for key sectors—but they need to be coordinated to share their information with other stakeholders. The National Disaster Operation Centre monitors and disseminates information on emergencies in the country. Kenya Red Cross volunteers also disseminate data on key hazards and vulnerability. The Meteorological Department is very active, and provides timely information, whilst at the community level administrative structures carry out awareness raising campaigns and warnings.

Ethiopia is in the process of preparing a Disaster Risk Management (DRM) Strategic Programme and Investment Framework, which will guide the DRM process in the country, as well as provide a basis for harmonised DRM funding. Within the Disaster Risk Management & Food Security Sector (DRMFSS), the lead government agency on DRM, under the Ministry of Agriculture, has increased budgetary and human resources allocation for DRR activities. This trickles down to sub-national government levels such as regions, zones, and woredas/districts. A programme on preparation of district-level disaster risk profiles has been launched that captures information on hazards, vulnerabilities and capacities at sub-district levels.

This forms the basis of all DRR activities taking place in the district, including location-specific early warning systems, contingency plans and DRR plans. The government has recently restructured the Early Warning monitoring tools

collected on a weekly and monthly basis from districts and regions in the country. In collaboration with World Food Programme and other partners, the government is also implementing a weather-based indexing tool (LEAP) that includes a software platform. Training programmes on risk assessments and early warning systems have been custom-based for authorities at various levels, and are being cascaded down to the lowest level through a streamlined capacity development process.

Regional: In terms of regional approaches, there are several programmes by governments, regional organisations and NGOs that address cross-border risks on drought, livestock diseases, epidemics and conflict, among others. Such arrangements also exist under the East African Community (EAC) and the Intergovernmental Authority on Development (IGAD). The IGAD Climate Prediction and Application Centre (ICPAC) is another regional intergovernmental organisation through which regional weather outlooks are generated, and trans-boundary weather related risks are highlighted.

Civil Society Organisations play an important role at the local level in supporting HFA implementation. Apart from being active members of national coordination mechanisms on DRR, they also become involved for example by using the Local HFA Monitor. CSOs also implement a variety of DRR activities on a small scale, often as pilots or where Government has not yet got the capacity to implement programs. It is important the CSOs co-ordinate well with local governments to maximise responses and to build capacities where possible.

Information on the "Local HFA Monitor" can be accessed under: <http://www.preventionweb.net/english/hyogo/hfa-monitoring/local/?pid:73&pil:1>

For further information contact: rhea.katsanakis@unep.org

Fact box

The 'local HFA monitor' has recently been developed by UNISDR as an online tool to capture the information on the status and progress in disaster risk reduction efforts from a local authority perspective. The main rationale behind the local HFA review process is to:

- Provide a self-assessment tool and a feedback mechanism for local and city governments, and facilitate the understanding of gaps and challenges in disaster risk reduction at the local level.
- Complement the national HFA monitoring and multi-stakeholder engagement processes by providing information and an assessment of the situation at the local level.
- The main actors in this multi-stakeholder local HFA review process are local government authorities, civil society organisations, community based organisations etc. The involvement of civil society organisations and community-based organisations is essential to the success of the review process and thus all local authorities are highly encouraged to ensure adequate participation of civil society and community based organisations in the consultations.

Are we romanticizing pastoralism?

Vanessa Tilstone, MEL Manager at REGLAP, rejects allegations that NGOs are romanticising pastoralism as yet another cover for the exploitation and politically marginalisation of the drylands, but urges NGOs to focus on today's realities of drylands inhabitants in the Horn of Africa in their interventions and discourse.

NGOs and researchers have been accused of portraying pastoralism²⁷ in an overly positive light—of not recognizing the harshness of the livelihood and the current challenges it faces. It is posited that they are trying to maintain the pastoralist's 'exotic' ways of life, as anthropological museum pieces and in tourist attractions. Uganda's First Lady Janet Museveni, and Ethiopian Prime Minister Meles Zenawi, have both made such accusations in the last few months, as have others not interested or familiar with pastoralism. But to the many people who have followed the history of marginalisation in pastoralist dryland areas, and identify the current 'national' policy interests in Uganda and Ethiopia, it is quite clear that this is merely another strategy to justify exploitation and the continuing exclusion of these politically unsupportive areas.

In recent years vast tracts of prime dry season grazing areas in Ethiopia—essential to sustain hundreds of thousands of livestock keepers—have been leased to foreign companies without any benefit to its inhabitants, or indeed the food security of the country as a whole. A visit to the Afar region of Ethiopia—where dry season grazing areas are now under Government sugar and cotton production—shows just how these investments have a devastating effect on both local livelihoods and the environment: Abandoned cotton farms are now filled with the invasive species *Prosopis* that renders grazing areas unusable and is almost impossible for communities to clear.

In Uganda's Karamoja region the Government is continuing a policy of oppression and the annihilation of livestock, with cattle raiding being blamed as the central cause of the insecurity in the region. Pushing the Karimojong into agriculture and enforcing top down security measures has done little to stem the lawlessness in the area: Cattle raiders have instead begun taking agricultural produce and household items in their raids. The agricultural push has also largely failed with an estimated 80% of the seeds distributed by the

Government in 2008 proving unproductive, and a large proportion of the population dependent on WFP food aid.

While Governments continue to undermine pastoralist livelihoods, increasing evidence is showing that, with support, pastoralism is far more resilient than agriculture to the increasing climatic uncertainty in the arid lands of the Horn of Africa; and that there is an urgent need to build the protection of pastoralist livelihoods into climate change adaptation and disaster risk reduction strategies by protecting strategic dry season grazing areas, and strengthening customary institutions to undertake natural resource management and conflict mitigation.

Despite the potential of pastoralism, many drylands inhabitants have already lost their livestock and are far more vulnerable than those who remain with livestock. In the last 10 years the proportion of pure pastoralists has reduced in some areas from 90 to 50% and in many dryland areas of the HOA there are more non-pastoralists than pastoralists—with reduced and degraded rangelands meaning that many of these people unlikely to ever return to pastoralism. NGOs now need to make sure that their efforts are well grounded in this reality of today's drylands. Their strategies must recognise and support the people who have and are dropping out of pastoralism, without undermining the livelihoods of those who remain.

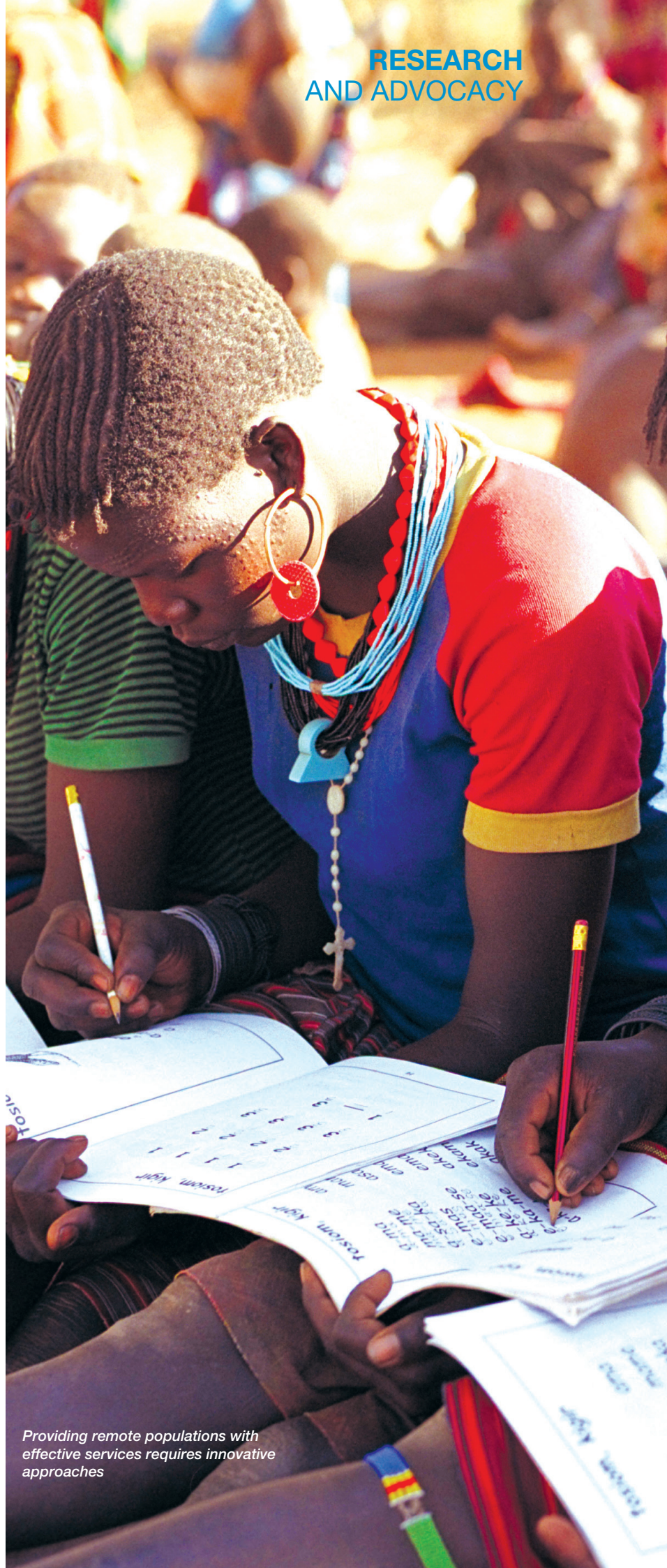
Alternative livelihood options in the drylands are challenging, due to the remoteness of the areas and the restricted skill and education base. However, by addressing infrastructure and basic service provision in the drylands, and by encouraging investment, both pastoralists and non-pastoralists can benefit. Market infrastructure for example will allow pastoralists to profit from the increasing national and global demand for meat and dairy products, creating additional opportunities for non-pastoralists. Tourism is another option that should not be dismissed: It is a major contributor to GDP across the region—with the Maasai brand a key feature

27 Pastoralism in this article is used to describe a livelihood of livestock keeping that involves some element of mobility.

of the Kenyan tourist sector. In Tanzania it has also been successfully demonstrated that pastoralism and nature-based tourism can complement each other. Whilst in Ethiopia and Uganda pastoralists are already conserving biodiversity over large areas, even if this sector needs to be further developed to the benefit of local populations.

As NGOs we need to be clearer and more consistent in our recommendations for the development of drylands, and continue to push for more accurate statistics and understanding of the current threats and evidence of good practice. We also need to be very careful about our use of terms: Using the term 'pastoralist' in debates to denote a socio-cultural identity is confusing if our policy and advocacy messages remain livestock-oriented. We also have a responsibility to support the sustainable development of pastoralism for those with livestock, as well as alternative options for those without. Ensuring that remote populations can benefit fully from basic services and modern technology requires innovation in a wide range of sectors. Modern mobile pastoralism is already a reality in many industrialised and emerging countries, but the route towards modernisation in the Horn of Africa still remains contentious and poorly envisioned.

To stem the anti-pastoralist trends in some countries in the Horn using evidence-based approaches, NGOs have a lot of work ahead of them. However, there are some positive developments and examples that can be built on and learnt from. The Ministry for Development of Northern Kenya and Other Arid Lands provides a model of how a more integrated approach to drylands development can be pursued, and as NGOs we should seek ways of supporting and enhancing their work. The recently approved AU Policy Framework for Pastoralism in Africa provides a comprehensive and well-researched document for holding non-supportive governments to account. By ensuring that we talk the same language and work together on these opportunities, NGOs can ensure that the potential of the drylands is realised and the voices of all dryland inhabitants are heard.



Providing remote populations with effective services requires innovative approaches

The AU Policy Framework for Pastoralism in Africa - Securing, Protecting and Improving the Lives, Livelihoods and Rights of Pastoralist Communities

John Letai, Regional Pastoral Advisor, Oxfam GB introduces the AU policy framework as an innovative, holistic, well-researched policy that needs to be taken up across the continent.

In January 2011, the AU Executive Council, at its eighteen ordinary session, approved the Resolutions on a “Policy Framework for Pastoralism in Africa”, as adopted by the Conference of African Ministers of Agriculture, held from 25th to 29th October 2010 in Lilongwe, Malawi.

The AU Executive Council further urged its Member States to review their policies that impact on pastoralism in accordance with this Policy Framework, with a view to developing more comprehensive policies which take into account the peculiar needs of pastoralism, and build adequate human, financial, and technical capacities to support pastoral policy development, implementation and track progress.

The Policy Framework for Pastoralism in Africa is the first continent-wide policy initiative that aims to secure, protect and improve the lives, livelihoods and rights of African pastoralists: It is a platform for mobilising and co-ordinating political commitment to pastoral development in Africa. It also emphasises the need to fully involve pastoralist women and men in the national and regional development processes from which they are supposed to benefit. The AU framework emphasises the regional nature of many pastoralist ecosystems in Africa, and the need to support and harmonise policies across the Regional Economic Communities and the Member States.

The AU policy arises from a need for an Africa-wide platform that effectively addresses, in a holistic manner, the many challenges confronting its pastoral communities. The policy framework provides both an understanding of pastoral issues, and the development and implementation of interventions needed to address these issues. In facilitating engagement with regional and country-level planning processes, the new policy framework should play a catalytic role in promoting

development in pastoral communities. The framework will provide the African platform needed for harnessing the political, economic and technical resources needed to empower pastoral communities to better manage their resources, for their own long-term benefit.

The document proposes addressing the root causes of pastoral vulnerability in the continent. It is driven by the recognition that the reduction of pastoral poverty is central to the achievement of the Millennium Development Goals (MDGs), as pastoralists represent a substantial segment of the population in many African countries. It also recognises that the success of climate change adaptation strategies will be achieved by pastoralists employing different coping mechanisms, to respond to the challenges of climate change in their environments. It acknowledges that many past attempts to support pastoralists through technical approaches, embracing indigenous knowledge, supporting innovations of sustainable natural resource management, promoting effective governance and further integrating pastoral livelihoods with expanding market opportunities, have not been fully successful in supporting the majority of pastoralists.

The AU policy further recognises mobility as being inherently ingrained in the pastoral system, stating that such movements are not random or irrational, but unique and carefully planned ways of coping with the harsh and erratic environments of the drylands. It is these technical and social aspects of pastoralism—developed and adapted over centuries—which enable today’s pastoralists in many African countries to supply the bulk of livestock for domestic meat markets, and the livestock export trade that is continuing to grow and respond to new market opportunities.

In its conclusion the policy stresses that sustainable pastoral resource management, equitable and secure access to pastoral resources, and peace and security are the core issues underlining the Pastoral Policy Framework. It confirms that it is necessary for these issues to be addressed through comprehensive national pastoral policies that confer full political, social, economic and environmental benefits to the pastoral communities. This last statement calls for commitments from both individual countries, and for cooperation at the regional and continental levels, to fully realise the implementation of the policy framework.

It remains to be seen how governments and regional economic blocks will internalise this policy framework, and put in place the policies and structures needed to address issues of pastoralism in order to improve the livelihoods of their communities—and their social, economic, political and environmental wellbeing. What is clear however is that there is strong need for drylands actors to join forces to raise awareness on the AU policy among pastoralists, governments and other stakeholders, and to build up understanding of pastoral livelihoods and challenges and so create greater awareness of pastoral rights.

The AU policy framework can be downloaded at: <http://au.int/en/dp/rea/documents>



The Regional Learning and Advocacy Project (REGLAP)

*The Regional Learning and Advocacy Project for vulnerable dryland communities is a consortium of NGO's including **Save the Children (UK)**, **Veterinaires sans Frontiers-Belgium**, **CORDAID**, **CARE** and **RECONCILE** led by **Oxfam GB**.*

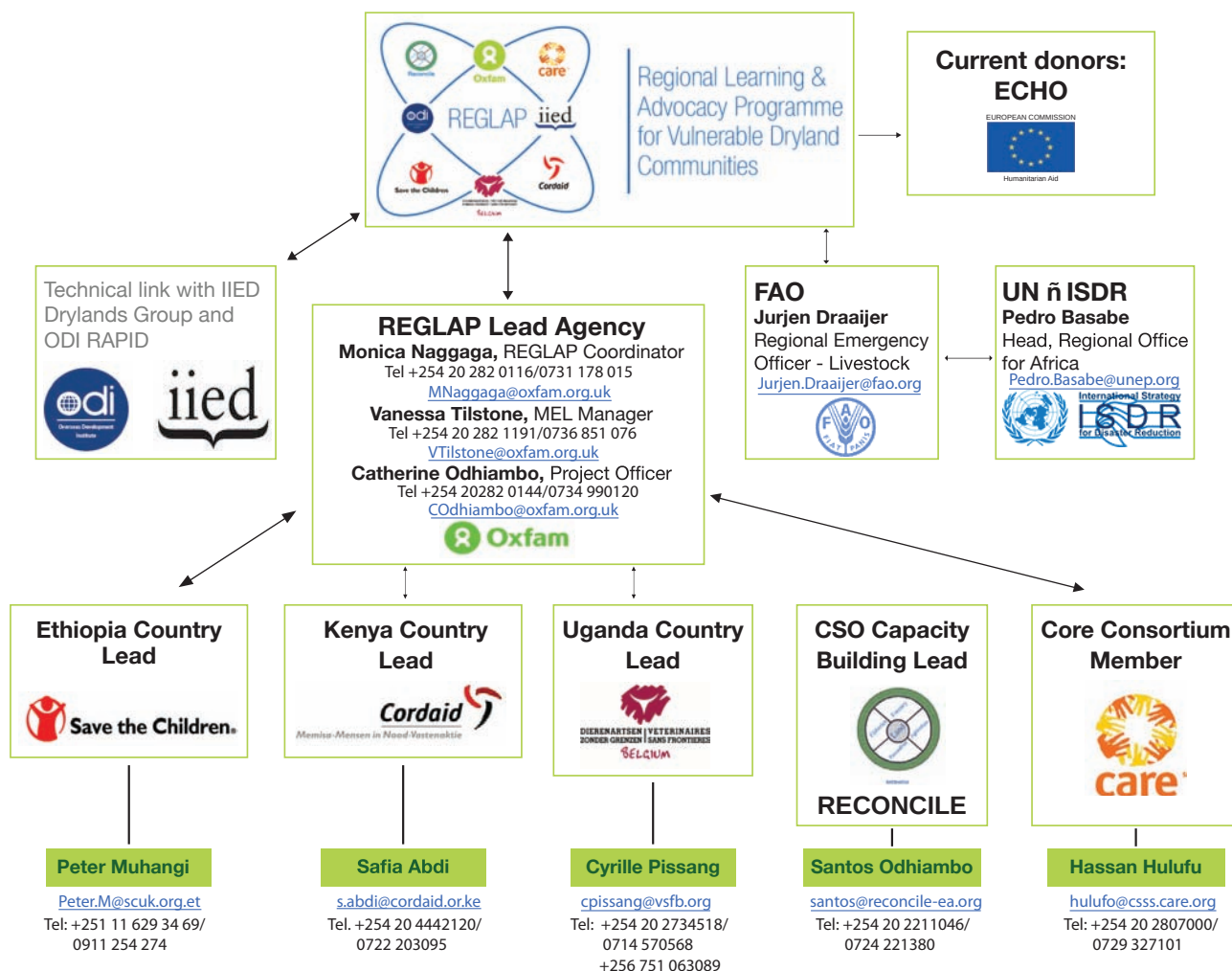
The project aims to increase CSO and DCM partner capacity to document lessons learnt and good practice for DRR policy and practice advocacy and promote DRR as a national and local priority. The project works in four key areas:

- Training and mentoring CSOs and DCM partners in advocacy and lessons learnt documentation;
- Sharing good practices and lessons learnt via technical briefs, newsletters, meetings and workshops;
- Promoting a shared understanding of DRR good practice through discussion forums, national celebrations and enriching university curricula on DRR;
- Influencing policy development and implementation through advocacy strategy development, policy influencing studies and media capacity building.

REGLAP is currently funded by the **ECHO Drought Cycle Management (DCM)** decision and is working closely with **FAO** and **UN ISDR** and the **DCM** partners:



Regional Learning and Advocacy Programme (REGLAP III) Organogram





EUROPEAN COMMISSION



Humanitarian Aid

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