

Learning & Policy Series



Building resilience in a complex environment



© CARE/Stuart Dunn

Building resilience in the drylands requires institutional as well as technical approaches that consider socio-ecological systems as well as ethnic and political boundaries. Attention to the roles of women and girls – and an understanding that these approaches must meet their needs – is paramount.

Introduction

The 2011 food crisis in the Horn of Africa has demonstrated that building community resilience is more urgent than ever. Food and water insecurity threaten human health, livelihoods and livestock, and drought conditions are worsening with increased rainfall variability. Since 2008, CARE International has been implementing a long-term programme to build resilience to drought through cross-border collaboration between communities in Kenya, Ethiopia and Somalia. The Regional Resilience Enhancement Against Drought (RREAD) Programme, now in its fifth year of operation, seeks to strengthen communities' capacity to withstand, absorb and recover from shocks by gradually improving innovation, diversification, governance and resource management approaches. This paper seeks to share with development and emergency response practitioners and policy makers some evidence of approaches that work in building community resilience to shocks and stresses in the region.

There are 20 million pastoralists in the Horn of Africa drylands. The long-term erosion of their resilience is attributed to multiple risks that are connected within a complex socio-ecological system. RREAD has contributed significantly to a detailed understanding of these risks and has harnessed evidence from pilot projects which demonstrate successful risk reduction and risk management options. Lessons generated call for more integrated approaches to address multi-hazard risk in dryland border zones, with emphasis on gender, conflict, natural resource management, governance and economic security. The learning from this paper suggests that resilience building must be approached with an institutional as well as a technical lens, recognising the need to work within socio-ecological systems and across environmental and social as well as ethnic and political borders. This paper highlights the impact of successful resilience building work and the importance of finding the optimal balance of approaches that result in increased food and livelihood security.

Communities in the drylands value activities that protect and improve the natural resource base.



Section 1: Context – Chronic vulnerability and increasing risk

1.1 Regional context and challenge

The Mendera Triangle is a cross-border region in the Arid and Semi-Arid Lands (ASALs) in the Horn of Africa. It is home to a large proportion of East Africa's minority pastoralist population. The climate is hot and dry with high rainfall variability and evaporation ratesⁱ. Cultivating crops is difficult under these conditions and the majority of the population has a nomadic and semi-nomadic pastoral way of life based on livestock rearing and herdingⁱⁱ.

In recent decades, communities have experienced a lot of change. Increasingly severe and prolonged droughts are separated by short periods of heavy rainfall. This has led to an unpredictable mix of flash flooding and severe drought with critical implications for natural resources. Water and pasture resource-related clashes are frequent. Pastoralists in the region depend on cross-border herd mobility as a strategy for coping with the complex mix of environmental, economic, political and security challenges. This mobility is crucial for livestock trade and production and any constraints tend to reduce community resilience in the face of the increasingly severe and prolonged droughts. These constraints have largely developed as a result of policy which restricts mobility and consequently the trade of livestock and livestock by-products.

1.2 Responding to the challenge through long-term, regional and integrated approaches

Regional approaches are essential for effective drought preparedness, management and response because they provide opportunities for shared understanding and appreciation of the range of cross-border linkages among pastoral communitiesⁱⁱⁱ. Many risks and vulnerabilities are not exclusively confined to national territories. Instead they are shared between countries across national boundaries. In pastoral areas around the borders, development actors often take a national rather than regional approach.^{iv}

An integrated approach to food and nutrition security and natural resource management is critical for addressing vulnerability to disasters and alleviating poverty. To do this, responses to the challenge of drought need to recognise the mutual benefits of traditional disaster risk reduction and drought cycle management, more recent climate change adaptation approaches (that consider climate science, for example) and livelihoods interventions (that address income and assets, for example). CARE believes that designing long-term, regional and integrated approaches will greatly contribute to resilience building efforts. Community coping capacity in this cross-border region has been eroded by the constraints described above and CARE has learned that interventions should thus consider the complex mix of environmental, political, socio-cultural and economic forces.

1.3 Objectives of the Regional Resilience Enhancement Against Drought programme

The humanitarian community has long been working in the region to protect livelihoods against disasters. Increases in drought frequency and severity since the 1990s and the recurrent need for lifesaving emergency interventions means that CARE is one of many organisations with a continued working presence in the area for humanitarian response. But RREAD was established in 2008 to address the chronic nature of communities' vulnerability with the intention of avoiding the need for such large-scale humanitarian interventions. Recognising the multi-faceted nature of livelihoods vulnerability, the programme has focused on addressing the capacity of people to build their resilience in the face of uncertainty and increasing climate variability. Supported by the European Commission Humanitarian Office (ECHO), the programme responds directly to the vulnerabilities described above, but by taking a community capacity building approach rather than an emergency assistance approach. The avoided need for major humanitarian intervention in the programme area last year suggests that this is working.

The programme set out to achieve the following results:

1. Community structures and local government bodies are able to implement appropriate emergency preparedness plans.
2. Local and national actors are engaged to manage the natural resource base to mitigate drought and other crises.

3. Livestock based livelihoods are supported to become more resilient to drought and other crises.
4. Learning feeds into improved policy and practice for drought cycle management at district, national and regional levels.

The principle outcomes from this programme include the enhancement of the adaptive capacity of pastoralist communities and local structures to implement appropriate drought preparedness plans that protect livelihood assets in the event of drought and increased diversification of livelihoods away from reliance on livestock. Monitoring and reporting of good practice has been effective and a wide range of lessons has influenced district, national and regional level drought cycle management planning^v.

The programme builds capacity for livelihood resilience over the longer-term which is in contrast to an often disproportionate focus on emergency response. Though drought is a familiar threat to pastoralists, the programme is successfully addressing other contextual challenges that hold hidden benefits for vulnerability reduction over time. Activities implemented by CARE are in line with a common understanding of resilience building, understood as 'resilience to any shock or stress that has the potential to do harm, hamper development and reduce socio-economic well-being, creating an environment where threats can be managed and opportunities realised'^{vi}. CARE is engaged in an interagency Resilience Learning Group, which has set out common principles and characteristics of processes or programmes such as RREAD.



© CARE/Stuart Dunn

Mobility is critical for pastoralists to sustain livestock health and trade.

Section 2: Impact for learning and replication

2.1 Learning from the RREAD programme

CARE has learned from the RREAD programme that the options available to mitigate the risk of a severe crisis such as that in 2011 must be considered with community and local authority capacities in mind. Of great value to communities, for example, are activities that protect and improve the natural resource base.

RREAD has learned that financial and physical insecurity and restrictive gender roles also limit engagement in decision-making processes, and that members of some communities, particularly the more marginal groups, lack the skills and knowledge to participate in local, let alone national, political processes. RREAD has had a crucial role in building adaptive capacity in the face of such constraints and future uncertainties. Below we set out the process through which this has been achieved, by demonstrating the programme's performance against six characteristics considered important for building resilience:

2.1.1 Building resilience through enhanced community capacity

Economic empowerment, through supporting engagement in more diversified livelihood activities, has helped individuals, households, communities and systems to change the way they operate. Individuals can diversify skills, knowledge, resources and assets to enhance flexibility in the event of anticipated shocks, stresses and challenges. Some RREAD activities have enhanced skills in hay preservation and meat processing, which can then be marketed to supplement income from livestock (case study 1). Other activities have enhanced community knowledge about weather and climate, which can be used to monitor, anticipate and plan appropriate responses to disasters. The programme has also facilitated improved access to information communicating early warnings of conflict, and provided training and access to improved animal health services.^{vi}

In addition to diversifying livelihoods, these examples demonstrate how processes and programmes can enhance the flexibility of individuals, households, communities or systems. This is crucial for enhancing community capacity for resilience building. Having the ability to monitor, anticipate and plan appropriate responses to disasters – whether slow-onset or sudden – increases the capacity to mitigate the risk, to respond and to recover.^{viii}

Case Study 1: Hay preservation saves women's livestock assets in Dambala Dhibayu, Southern Ethiopia

Communities such as Dambala Dhibayu in the Borena zone of Ethiopia have formed self-help groups to save money for use during times of need. By saving 5 Ethiopia birr (0.3 USD) per member per week, the group was able to raise about 9,000 birr (550 USD) in under two years. The group invested the 9000 birr saved in steers for fattening. The steers were fattened for six months and resold at 17,000 birr, thus enabling the group to recoup a gross profit of 8,000 birr (485 USD).

When the group's success was threatened by drought and livestock disease, it identified the need for change. The programme assisted with training in business management and hay making for group members. Now, the activities are themselves less vulnerable to climate risks because, during periods of drought and resource shortage, the group has a feed supply from the process of harvesting and storing hay throughout the year. In addition, a grant was provided to boost the working capital of the group. The group bought 16 steers for fattening and invested 2,000 birr in a village shop to sell consumer goods including sugar, tea leaves, soaps and oil. Such activities supported the spread of risk, enabling the group to continue to profit even if one element of the production line fails. "We have been living in this area but, besides making enclosures for milk herds around villages, we did not practice harvesting and storing hay for periods of scarcity. The hay we harvested a year ago has saved our 16 steers and we are considering how we can grow better species of grass for hay making in future instead of just harvesting what grows naturally." – Chairwoman of Dambala Dhibayu Self Help Group.



Harvesting, storing and protecting hay is an important activity that underpins livestock health and value.

2.1.2 Supporting good local governance

Decentralised and participatory decision-making based on rights, entitlements and linkages between levels of governance is the foundation for good governance and RREAD has published extensively on this subject.

As mentioned, localised conflict in the area has affected cross-border herd mobility for many years. RREAD has helped to mitigate these natural resource conflicts through addressing constraints to good governance. One such initiative has been to strengthen civil and governmental institutions and their ability to promote dialogue between conflicting ethnic groups. Improving the strength of links between different levels and types of governance – between informal community leaders and local government, and between NGOs and local government – has enabled the establishment of productive cross-border peace committees^{ix}.

Gender equity is fundamental in all of CARE's activities and is considered a crucial pillar for good local governance. Institutions supported by RREAD are therefore encouraged to protect and secure the rights, interests and entitlements of all marginalised, excluded and vulnerable groups. Women, the elderly, the young and the disabled are given a voice to participate in decisions that affect them.

2.1.3 Extending and strengthening partnerships for collective action

CARE has learned that supporting community cooperatives can reinforce the capacity for groups to build resilience not only of members and their immediate families, but widely through members' social networks. It can be a cost effective approach to building resilience, with a high potential for sustaining long-term impact through extending and strengthening partnerships for collective action.

Crucially, the innovation and ideas that form the foundation for action have been developed by cooperative group members themselves. These groups have an inherent motivation and long-term vision to improve collective wellbeing. Thus, investments in skills training and activities that spark innovation can provide a real and lasting added-value. These benefits have a particular impact on and are highly valued by women, many of whom have built partnerships, trust, solidarity and collective goals with other local women and civil society organisations. This cooperation encourages innovation, experimentation and risk-taking. Through group membership, household livelihoods are much more resilient when drought hits as risks can be spread across members and across the greater variety of assets and processes supporting household wellbeing.

On the Ethiopian side of the border town of Moyale, a group of determined women came together to attempt to increase family income. They formed a Women's Income Generating Group (WIGG) based on a series of petty trading enterprises. By collectively saving a proportion of their monthly earnings, the group began issuing loans to individual group members so trading enterprises could be established. With support from RREAD, a first round of loans was issued which enabled over 33 members to benefit from start-up capital for small businesses. Women have achieved greater economic independence through this new partnership arrangement. This can lead to added respect from spouses and strengthened decision-making power in household and community fora. In the case of the WIGG in Moyale, the Chairwoman, Hawoy Isaqui, explained to project staff the impact on the lives of the women who had participated in the group.^x

"All the women in the group come from the countryside where women are not allowed to sit and discuss at meetings. But, now we have our own meetings in our own meeting place and hold our own discussions – this in itself is a massive change."

"Also some of the women have been given the responsibility and paid employment by the local government to distribute water from the village tanker – this is a big sign of social change and the way women are positioned within our community."

2.1.4 Integrating traditional knowledge with innovation

For centuries in the Horn of Africa, pastoralists have developed a flexible and adaptive livelihood within the context of arid and semi-arid areas, and ingenuity and self-management in this harsh environment is an inherent cultural characteristic. Pastoralists also have a culture of learning from experience, and customary rules and institutions that ensure experiential learning are preserved through generations^{xi}.

CARE has learned that it is vital that this valuable traditional knowledge is preserved as scientific information, and that new technologies reach the most remote pastoral communities. CARE is thus testing initiatives that link traditional knowledge with science and will apply learning on participatory scenario planning (to improve local decision making) from its Adaptation Learning Programme (ALP)^{xii}. In 2012 and 2013, RREAD will be creating groups for the sharing of traditional and scientific weather forecasting methods. These platforms can also support understanding of the options available to respond to changes once they are realised, including how to reduce risks and capitalise on emerging opportunities. The case below describes a less technological example and illustrates that small business grants can rejuvenate traditional practice that can bring economic benefits.

CARE stresses the importance of socio-economic empowerment of women and girls.





The development and management of natural resource points such as water troughs on livestock migration routes is important for pastoralists.

Case Study 2: Meat preservation for commercial purposes improves livelihood opportunities for women

The Gari pastoralist community which dominates Mandera county in Kenya relies on the rearing of three species of livestock – cattle, camels and sheep/goats – referred to locally as the ‘three with sweet milk’. Drought has been an aspect of the county’s weather pattern for centuries but the frequency and severity of these droughts has increased in the last three decades.

One reason that food security has weakened in recent years is because traditional knowledge in meat preservation has eroded and many households no longer use traditional preservation processes. Communities are realising the vital importance of this old practice for ensuring food security in resource scarce periods.

In collaboration with local veterinary officials, CARE is working with women’s groups to rejuvenate old techniques. Small grants and training are provided for women to learn not only how to preserve meat, but also how to preserve meat for commercial purposes and how to engage with markets. With these new skills and access to financial capital, women are now earning a profit from preserving and selling meat. This has created innovative business opportunities such as opening a butchery to sell raw meat as well as a production line to produce a ready-to-consume dried meat product called Nyirinyiri. Benefits extend beyond the immediate business members because the additional demand for products used in the production process has strengthened local value chains.

Individuals, households and the wider communities have benefited from alternative or diversified livelihood sources with many women having become economically empowered by the project. In some cases, livestock marketing has been taken a step further, with engagement in hide and skin trading and small business management. These activities have enabled group members to purchase water and a few livestock and provided income to purchase food in lean periods.

2.1.5 Understanding context and working across scales

CARE's vulnerability and capacity analysis – by working with communities to identify the benefits of cross-border trade and natural resource use – realised the potential that cross-border approaches have in reducing pastoral communities' vulnerability to drought hazards. Since its inception, the programme has focused increasingly on cross-border dynamics and overcoming challenges related to the extensive scale and remoteness of the area.

This required a detailed analysis of historical relations and an understanding of the multiple risks and vulnerabilities affecting communities. Also, lack of familiarity with how levels of governance work at the local level – particularly the relationship between formal and informal institutions – affected the programme approach. Interventions were adjusted with more focus on institutional linkages and the importance of governance structures. The initial programme design also realised and addressed the need for longer-term resilience building initiatives after an initial timeframe of only 12 months constrained the potential to understand the political and social context at project level. This is critical learning – the fact that development actors can and should consider long-term resilience building even if constrained with short-term project cycles. Donor flexibility and strategic thinking has been critical in being able to manage this process.

The design process and subsequent attention to learning led CARE to work within and across the boundaries of socio-ecological systems as opposed to within national or ethnic borders. The pastoralist community of Burduras in Mandera West in Kenya is located in close proximity to the community of Hardura in Ethiopia and, as there is no physical demarcation of the border, there has always been cross-border interaction between communities. Strengthening and expanding these existing cross-border relations through organising meetings between the two communities on natural resource management, the sharing of early warning information and livestock marketing in addition to agreements on wet and dry season grazing patterns has been a focus of the programme.^{xiii} This approach has helped address conflict between the two communities. However lessons from similar initiatives have shown that it is vital that external support to cross-border peace and natural resource management committees is based on 'a thorough understanding of their roles, functions and rules, their accountability and representation, their impact on other institutions and the underlying development vision towards

which they are working'.^{xiv}

Integrating an understanding of the institutional picture with technical perspectives of arid and semi arid land management ensures that support is not constrained within administrative boundaries. The regional, cross-border narrative should be integrated in other development partners' projects and programmes such that practical support on the ground is 'designed, planned and implemented with a regional perspective'^{xv}. Understanding the livelihood system institutionally can support this regional perspective, enabling agencies to address conflict and rangeland degradation through recognition of pastoral land rights. Only interventions that are designed and implemented upon an understanding of these regional issues within and between communities can be truly effective at improving natural resource management for building resilience.^{xvi} CARE's experience here has affirmed that understanding socio-ecology is thus critical for resilience building.

2.1.6 Effective natural resource management is a conflict sensitive approach to resilience building

Lessons can also be shared by the RREAD programme's exposure to natural resource management practices in a cross-border context. As described, CARE pays particular attention to the critical socio-ecological situation in which these highly vulnerable communities live. Our learning demonstrates the importance of attention to both human adaptive capacity and the capacity of the ecosystem to adapt. Development actors cannot expect too much of communities in terms of their capacity to withstand and absorb incessant stress or regular shocks. Neither should we expect the ecosystem to be able to tolerate sustained stress from either increased rainfall variability or human activity (in the form of shifts to agriculture or to overgrazing, for example).

Overlooking the potential for cross-border communities to engage in joint planning and implementation of resilience building initiatives (and thus developing sustainable community and ecosystem support) is missing a huge opportunity in terms of managing and transforming conflict. RREAD has harnessed benefits for both neighbouring communities through the creation of single fora for joint action and benefit sharing. These fora have enabled representatives from the Ethiopian community – rich in water resources, and the Kenyan community – rich in pasture, to meet in a central place to develop joint assessments and plans for the sharing of both resources – which neither community can do without. As such, both communities have

Case Study 3: Cross-border planning and action improves pastoralist resilience to drought

CARE's RREAD programme began through the identification of several vulnerable communities living along and across the Kenya-Ethiopia border. The programme was founded on an inclusive participatory process, which engaged both informal and formal leaders at a very early stage. The result was trust and acceptance of CARE's programme and this led to the unique ability for programme staff to arrange joint meetings.

Outputs from these joint meetings, which attracted leaders from communities situated on both sides of the border, have ranged from joint participatory disaster risk assessments to plans that reduce risk to drought through to joint natural resource management. A crucial element of the programme has been the involvement of technical leaders from local (formal) government agencies as well as traditional leaders. Both groups of leaders have supported the implementation and monitoring of the community resource management plans. Six cross-border partnership networks have been formed since 2009. Increased collaboration to preserve rangeland and land-based resources (pasture, browse and water) has enhanced the security of fodder and water for livestock, thus mitigating the impact of drought. The resilience of these communities, now being documented, in the face of the 2011 drought is testament to the success of this approach.

CARE has learned that hybrid structures, engaging both formal and non-formal institutions and processes can be a successful resilience building approach. Regulation of grazing and water use including rangeland enclosure and restricted grazing, has meant that pasture is available for grazing for the three critical drought months each year. Regulation of water sources, including underground tanks and water pans situated above ground, now means that communities do not need water transported by truck for an additional two months. Livestock is also expected to survive two months longer during drought than was expected before these regulations were jointly introduced.

Similar positive outcomes have been documented across the six cross-border partnerships supported by CARE. The initiative holds a lot of potential to further improve adaptive capacity. The programme is exploring opportunities to improve the productivity of enclosed areas of pasture through water and soil conservation. Drought emergency boreholes which are only opened up in drought periods could further support these communities, now that collaborative, regulated resource access is facilitated.

successfully negotiated the sharing of common pool resources and mutual benefits through an approach that facilitates the management of conflict. The premise for engagement on the part of the communities is the natural resource base but a major outcome is the transformation of conflict dynamics from often violent to non-violent bases. Prior to this initiative, the ability of both communities to manage their natural resources was severely constrained due to insecurity – this prevented traditional cooperative methods of managing arid and semi-arid livelihoods. Furthermore, insecurity on the rangelands created disincentives for individuals and communities to voluntarily manage their natural assets, due to uncertainty about who the final end-user of the collectively managed resource would be. CARE has

thus learned that natural resource management regimes, devised and driven by the community users (and in collaboration with authorities), have considerable conflict transformation potential.

Lessons from these successful conflict sensitive approaches to natural resource management trialled by RREAD include:

1. Programmes should link with both traditional and formal governance institutions.
2. Sensitisation on the importance of inclusive planning – including social and gender diversity and different interest groups – is crucial to joint planning.
3. Engage the commitment of local government by building capacity of local institutions on issues such as risk assessment and adaptive planning.

Section 3: Conclusion

3.1 Summary of learning

Approaches for addressing vulnerability in drought-prone, cross-border regions should acknowledge the unique and complex characteristics that define and determine livelihoods. The need for mobility, for the management of resources across borders and approaches that are conflict-sensitive are critical elements of programmes that will succeed. There is consensus that policy responses need to reconfigure in order to strengthen linkages between emergency drought response and long-term development programmes to address the fundamentals of sustainable livelihoods in the drylands. CARE has learned that understanding human vulnerability cannot be complete without understanding the vulnerability of the ecosystem. Understanding the drivers of vulnerability will improve the success of resilience building.

Inclusiveness and partnership must underpin the transition to more integrated emergency/long-term resilience building initiatives in cross-border, drought-prone regions. Gender equity must be a fundamental element of community resilience building as it enables all individuals of a community to be empowered economically, which enhances capacity for flexibility. Lesson learning and sharing of unique benefits is the essence of these partnerships – between institutions dealing with different types of drought response (immediate and long-term), between types of local government (informal and formal), between sectors (private and public), between communities (across ethnic or national borders) and, within communities, between genders and between socio-economic groups. Strengthened or extended networks through partnerships is a vital driver of effective resilience building.

3.2 Concluding remark

This paper has unpacked the experience gathered over the course of CARE's four-year Regional Resilience Enhancement Against Drought (RREAD) Programme. The case studies presented provide evidence to support approaches that build resilience through several core principles:

1. Capacity to manage risks and uncertainties to inform effective decision-making.
2. Good governance based on rights and on decentralised and participatory decision-making with sound links between levels of governance.
3. Partnerships that drive collective action.
4. Local traditional knowledge with science and technology for learning and innovation.
5. Working across scales with a particular focus on socio-ecological systems.

Learning from this programme points to a need for more integrated approaches to address multiple risks, with emphasis on gender, conflict sensitivity, natural resource management, governance and economic security. Resilience building in the drylands must be approached with an institutional as well as a technical lens, recognising the need to work within socio-ecological systems and across – not within – the realms of ethnic and national borders.

Improving access to markets, supporting viable economic alternatives to diversify livelihoods away from reliance on a single source of income and sustainable natural resource management are vital support processes. But diversification is not a panacea and CARE has learned from other work in the region that, if diversification is pursued, it requires careful planning and risk assessment.^{xvii} What appears imperative is that adaptive and change capacity among communities and institutional structures will become progressively more important. Systemic but adaptive thinking is needed to ensure real resilience.





Effective conflict sensitive management of pasture and water resources enhances human security.

References

- ⁱ WeAdapt (2009), 'Kenya: Current climate and hazards'.
- ⁱⁱ Roba, A. and Witsenburg, K. (2004), 'Surviving pastoral decline: Pastoral sedentarisation, natural resource management and livelihood diversification in Marsabit District, Northern Kenya'. Vol 1. PhD Theses (unpublished).
- ⁱⁱⁱ Roberts, R. (2010), 'Regional Resilience Against Drought (RREAD) Phases One and Two: Best Practices and Lessons Learnt'.
- ^{iv} Pavanello, S. (2010), 'Working across borders: Harnessing the potential of cross-border activities to improve livelihood security in the Horn of Africa drylands'. HPG Policy Brief 41.
- ^v Roberts, R. (2010), 'Regional Resilience Against Drought (RREAD) Phases One and Two: Best Practices and Lessons Learnt'.
- ^{vi} Interagency Resilience Working Group (2012), 'The Characteristics of Resilience Building: A discussion paper'. PPA Resilience Learning Partnership Group, BOND Disaster Risk Reduction Group, BOND Development and Environment Group (2012) unpublished.
- ^{vii} Roberts, R. (2010), 'Regional Resilience Against Drought (RREAD) Phases One and Two: Best Practices and Lessons Learnt'.
- ^{viii} Interagency Resilience Working Group (2012), 'The Characteristics of Resilience Building: A discussion paper'. Op cit.
- ^{ix} CARE International (nd), 'Cross border planning improves pastoralist resilience to drought in Kenya and Ethiopia' (unpublished).
- ^x Roberts, R. (2010), 'Regional Resilience Against Drought (RREAD) Phases One and Two: Best Practices and Lessons Learnt'.
- ^{xi} IFAD (2007), 'Women Pastoralists: Preserving Traditional Knowledge, Facing Modern Challenges'. International Fund for Agricultural Development (IFAD).
- ^{xii} CARE International (2012), 'Decision-making for climate resilient livelihoods and risk reduction: A Participatory Scenario Planning approach'. Adaptation Learning Programme (ALP) brief.
- ^{xiii} Pavanello, S. (2010), 'Working across borders: Harnessing the potential of cross-border activities to improve livelihood security in the Horn of Africa drylands'. HPG Policy Brief 41.
- ^{xiv} Pavanello, S. (2010), 'Working across borders: Harnessing the potential of cross-border activities to improve livelihood security in the Horn of Africa drylands'. HPG Policy Brief 41.
- ^{xv} Pavanello, S. and Levine, S. (2011), 'Rules of the Range: Natural resources management in Kenya-Ethiopia border areas'. HPG Working Paper. September 2011: 2.
- ^{xvi} Pavanello, S. and Levine, S. (2011), 'Rules of the Range: Natural resources management in Kenya-Ethiopia border areas'. HPG Working Paper. September 2011: 2.
- ^{xvii} New Economics Foundation (nef) (2012), 'Why Community Based Adaptation Makes Economic Sense'. For CARE International Adaptation Learning Programme (ALP).

EUROPEAN COMMISSION



Humanitarian Aid

CARE International gratefully acknowledges the support of the European Commission Directorate General for Humanitarian Aid and Civil Protection (DG-ECHO)

CARE International works in 84 countries in Africa, Asia, Latin America, the Middle East and Eastern Europe.

We are a multi-mandate organisation operating across the spectrum of humanitarian and development contexts in association with a range of partners from civil society, the private sector and governmental agencies.

CARE International UK operates as one of the members of the CARE International confederation to promote quality programming through country offices as well as influencing policy and raising awareness about our work in the South and the North.

The Learning and Policy Series is intended as a complementary means to fulfilling our lasting commitment to finding durable ways of tackling the underlying causes of poverty, vulnerability and injustice.

CARE International UK

9th Floor

89 Albert Embankment

London SE1 7TP

Tel: +44 (0) 20 7091 6000 Fax: +44 (0) 20 7582 0728

Website: www.careinternational.org.uk

Email: info@careinternational.org

Registered charity number: 292506

Private company limited by guarantee number (England and Wales): 1911651



**FundRaising
Standards Board**

give with confidence