
CapEx in supporting pastoral development

Bibliography for CapEx Pastoralism

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This bibliography was compiled by Ann Waters-Bayer to provide reference materials for the participants in the SDC Capitalisation of Experiences in Supporting Pastoral Development (CapEx Pastoralism) process. The list is structured according to the themes of the CapEx Briefs prepared in 2015–16. It is focused on West, East and the Horn of Africa, as these CapEx Briefs are, but includes a few references to Central Asia, as some of the CapEx Briefs also do. The annotations are derived primarily from the website of the Coalition of European Lobbies on Eastern African Pastoralism (www.celep.info) and Inter-réseaux Développement rural (<http://www.inter-reseaux.org>). It does not include all of the references given in the individual CapEx Briefs.

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1. General

ADF *et al.* 2013. **Élevage pastoral: un contribution durable au développement et à la sécurité des espaces saharo-sahéliens** – Actes du Colloque, 27–29 mai 2013, N'Djamena, Tchad. 162pp. (www.pasto-secu-ndjamena.org)

Catley A, Lind J & Scoones I. 2013. ***Pastoralism and development in Africa: dynamics at the margins***. London: IT Publications. 328pp. ISBN-13: 978-0415540728 (see www.celep.info/pastoralism-im-africa-dynamic-change-at-the-margins but not available as PDF or on the Web).

The book [Pastoralism and development at Africa: dynamic change at the margins](http://www.celep.info/pastoralism-im-africa-dynamic-change-at-the-margins) is based on the conference “The Future of Pastoralism in Africa” convened in Addis Ababa, Ethiopia in March 2011 by the IDS (Institute of Development Studies) Futures Agricultures Consortium and Tufts University. It highlights innovation and entrepreneurship among pastoralists. In 20 chapters, it provides empirical evidence of diverse development pathways in the drylands. It shows that the best use of such areas is mobile livestock-keeping. Pastoralism can be modern, efficient and highly profitable, and out-competes the alternatives many times over. More effective policies in favour of pastoralism and the livestock economy could bring more riches, more widespread development and stability to this troubled region, if pastoralists’ own initiatives are recognised and supported.

Ce livre *Le pastoralisme et le développement en Afrique*, avec 20 chapitres empiriques et détaillés, fournit un aperçu du développement dans les régions pastorales de la Corne de l’Afrique. Il souligne l’innovation et l’entrepreneuriat, la coopération, la constitution de réseaux et les diverses approches rarement conformes aux recommandations standard en termes de développement.

Grandval F. 2012. **Pastoralism in sub-Saharan Africa: knows its advantages, understand its challenges, act for its sustainability**. *Food Sovereignty Brief 5*. Paris: Inter-réseaux Développement rural. 7pp. (www.fao.org/fileadmin/templates/agphome/documents/rangelands/BDS_pastoralism_EN.pdf)

Hagmann T & Speranza CI. 2010. **New avenues for pastoral development in sub-Saharan Africa**. *European Journal of Development Research* 22: 593–604. Doi:10.1057/ejdr.2010.46 (<http://www.palgrave-journals.com/ejdr/journal/v22/n5/full/ejdr201046a.html>).

IFAD/FAO. 2015. **Engagement with pastoral development (2003–2013): Joint evaluation synthesis**. Rome: IFAD/FAO. 114pp. (<http://www.ifad.org/evaluation/events/2015/livestock/report.pdf>)

Inter-réseaux. 2015. **Vers une prospective régionale sur le pastoralisme en Afrique de l’Ouest: note de cadrage**. 24pp. https://www.shareweb.ch/site/Agriculture-and-Food-Security/aboutus/Documents/pastoralism/pastoralism_biblio_inter-reseaux_2015.pdf

Jode H de (ed.). 2009. **Modern and mobile: the future of livestock production in Africa’s drylands**. London: IIED. 90pp. (<http://pubs.iied.org/pdfs/12565IIED.pdf>)

Rass N. 2006. **Policies and strategies to address the vulnerability of pastoralists in sub-Saharan Africa**. PPLPI Policy Brief. Rome: FAO Pro-Poor Livestock Policy Initiative. 2pp. (www.fao.org/ag/againfo/programmes/en/pplpi/docarc/pb_wp37.pdf)

Scoones I (ed.). 1995. **Living with uncertainty: new directions in pastoral development in Africa**. London: IT Publications. 210pp. ISBN 1-85339235-9 (not in print and not available as book as PDF or on the Web). For Table of Contents, Preface & Chapter 1, see www.ids.ac.uk/files/dmfile/livingwithuncertainty.pdf

SNV. 2012. **Improved livelihoods for pastoralists**. *SNV Practice Brief 2*. 8pp (www.celep.info/improved-livelihoods-for-african-pastoralists)

The Netherlands development organisation SNV shares its experiences in helping pastoralists in Africa improve their livelihoods. It brings together numerous cases from Eastern and West Africa that show some of the commonalities in pastoralist practices, such as in water-resource management in Tanzania and Niger. But it also highlights the diversity of contexts within which pastoralism operates, as seen in the contrasting scales of dairy processing in Kenya, Niger and Burkina Faso, or the different roles played by local brokers in the livestock markets in Southern Sudan and Benin. The brief highlights various adaptation strategies, commercialisation options and institutional arrangements found in pastoralist settings across Africa. Case examples include commercialisation of camel milk in Kenya, harvesting of gum arabic by pastoral youth in South Sudan, and revitalising cattle-dip services in Tanzania, among many others.

WISP. 2010. **Building climate change resilience for African livestock in sub-Saharan Africa**.

Nairobi: IUCN / WISP (World Initiative for Sustainable Pastoralism). 48pp (www.celep.info/making-african-pastoralism-more-resilient-to-climate-change)

WISP made a scoping study to identify entry points for building the resilience of livestock systems to climate change and variability. It included two subregional reviews (in Eastern & Southern Africa, and in West & Central Africa), six country visits (in Kenya, Namibia, Malawi, Cameroon, Niger and Mali) and an e-conference. Among the three categories of livestock systems covered were range-based livestock systems: pastoralism and ranching (including game ranching). It was found that the policy and legal environment is generally not conducive for livestock-keepers. Pastoralists need secure land-use rights, strong and equitable local institutions and functioning legal systems. Significant attention is needed to strengthen policy implementation with respect to markets, local organisations, natural resource governance and tenure, women's rights and the regulation and protection of transhumance routes. Although the African livestock sector does not contribute significantly to global climate change, there are options for mitigation of climate change that may offer incentives for improved livestock production. These include a range of methods for improving carbon capture by rangelands and complementary activities such as silvopastoralism.

2. Crossborder transhumance corridors

Aklilu Y, Little P, Mahmoud H & McPeak J. 2013. **Market access and trade issues affecting the drylands in the Horn of Africa**. *Technical Consortium for Building Resilience to Drought in the Horn of Africa Brief 2*. CGIAR Consortium / FAO Investment Centre. 33pp. (www.celep.info/?p=1156)

This technical brief addresses the rationale and priorities for investment in trade in livestock and other agricultural commodities, e.g. market development and access, crossborder trade, and sanitary and food-safety standards. It notes that livestock markets function reasonably well in the Horn. Trade in livestock and livestock products in Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan and Sudan equals about USD 1 billion in foreign exchange in many years, and probably 5–6 times that amount in local currencies. Live animal and meat exports, especially from Ethiopia, Somalia and Sudan, have increased rapidly as has domestic trade centred on key urban markets such as Addis Ababa, Khartoum, Mombasa and Nairobi. The brief describes actions that can be taken to ensure that producers in the lowlands of the Horn benefit from the growing trade opportunities. It brings best-practice examples of markets and market agents who successfully adapt to new opportunities and changes. Key challenges are reconciling marketing objectives with the production goals of pastoral producers, who hold more female than male animals in their herds given their production objectives; increasing competition for the natural resources by other alternative uses; dealing with livestock diseases and related quarantines; and overcoming a lack of value-adding techniques. Land tenure, production and marketing issues are interrelated priority areas that support trade from the lowlands, and policies need to be integrated that work in all three domains. Policies are proposed for improving regional mobility of livestock, pastoral production and crossborder livestock marketing.

Bonnet B, Herault D & Sambo B. 2012. **Sécurisation des systèmes pastoraux au Sahel face aux incertitudes climatiques, socio-foncieres et économiques**. Journée d'étude IRAM du 28 juin 2012. 12pp. (<http://vulnerabilite.iram-fr.org/index.php?page=143>).

FAO. 2012. **La transhumance transfrontalière en Afrique de l'Ouest : proposition de plan d'action**. Rome : FAO. 146pp (www.inter-reseaux.org/IMG/pdf/Transhumance_Transfrontalier_en_AO_Rapport_FAO.pdf).

Flintan F. 2012. **Protecting livestock mobility routes: lessons learned**. Nairobi: WISP / RECONCILE / ILC. 4pp. (www.celep.info/protecting-livestock-mobility-routes)

The programme "Making Rangelands Secure" summarised lessons about protecting livestock mobility routes (corridors) in this 4-page brief directed at Ethiopian decision-makers. The brief outlines why livestock mobility is important, what the challenges to mobility and the impacts of not maintaining mobility are, ways to protect migration routes (based on examples from Niger and the Sudan) and the implications for livestock production in Ethiopia. The protection of livestock corridors is a must if pastoral production is to be optimised. Livestock corridors need to be protected through and around commercial farms, and across areas where enclosures and small-scale agriculture have been established. In some cases, it may be necessary that fences and/or small-scale farms are removed or relocated. Participatory rangeland mapping and community action planning are good starting points for this and need to include all stakeholders in order to find effective and sustainable solutions that support the different land uses in dryland areas. Appropriate governance structures will also need to be established that can ensure enforcement and prevent conflict, once migration routes have been established and demarcated.

Hesse C. 2010. **Legislation to support crossborder livestock mobility**. *Policy Brief 14*. COMESA/CAADP (Common Market for Eastern and Southern Africa / Comprehensive African Agriculture Development Programme). 3pp. https://www.shareweb.ch/site/Agriculture-and-Food-Security/aboutus/Documents/pastoralism/pastoralism_biblio_hesse_2010.pdf

Namassa Zakaria Y. 2014. **La transhumance transfrontalière in Afrique de l'Ouest**. *Paix et Sécurité Internationales 2/2014* : 31–46 (<http://catedras.uca.es/jean-monnet/revistas/paix-et-securite-internationales/abstracts/new/fr/02/info002fr>).

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*. London: Overseas Development Institute Humanitarian Policy Group (HPG). 7pp. (www.celep.info/wp-content/uploads/downloads/2011/02/cross-border-livestock-marketSARA-PV-policy-brief.pdf).

This policy brief presents pastoralism as a crossborder activity that requires deeper understanding of the consequences of this mobility. Currently, governments are trying to solve the problems through unilateral action, whereas a more joined-up approach would promise more success. Regional bodies could play an important role in the coordination of crossborder pastoralism, especially to improve livestock marketing.

Pavanello S & Scott-Villiers P. 2013. **Conflict resolution and peace building in the drylands of the Greater Horn of Africa**. *Technical Consortium for Building Resilience to Drought in the Horn of Africa Brief 6*. CGIAR Consortium / FAO Investment Centre. 17pp. (www.celep.info/?p=1252)

This brief focuses on pastoralist communities in Djibouti, Ethiopia, Kenya, Somalia, the Sudans and Uganda and looks at governance institutions, citizen-state relations and the politics of resource allocation. Most pastoralist areas in the Horn are persistently insecure. The nature of violent conflict in the region is multi-layered and dynamic. Conflicts that may appear localised to pastoralist drylands may be fuelled by drivers in institutional, political-economic and social spheres operating at national, regional and global levels. Different spheres of authority and a wide range of policies affect conflict management and peace-building efforts in the drylands. Customary institutions and authorities are widely trusted locally but have often been ignored and weakened by state institutions. Fragmented governance systems, competitive patronage politics, competing claims over resources, combined with weak citizenship arising from poor governance and negative attitudes about pastoralism are significant obstacles to lasting peace. There are no national policies on conflict management and peace building to support local efforts on the ground. Regional strategies for peace and security are not linked effectively to local implementation. Regional coherence is undermined by the proliferation of often overlapping regional bodies, which compete rather than collaborate over resources and political influence. The few examples of successful peace building drew in the support of both citizens and policymakers, were conceived as lengthy processes and explicitly dealt with governance, resources, politics and social issues. To be sustainable, peace building requires concerted efforts – part of long-

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term investments aimed at supporting dryland livelihoods – to strengthen citizenship, improve social connectivity and economic infrastructure, foster crossborder links and reform governance. The brief outlines key priorities for interventions.

Serge A & Hesse C. 2008. **Chad Desk Review**. Securing Pastoralism in East and West Africa: Protecting and Promoting Livestock Mobility Project. 26pp. (www.celep.info/?p=937)

This desk review on pastoralism in Chad focuses on mobility for seasonal transhumance. It describes how pastoralism and livestock mobility are changing. It analysis the institutional context affecting livestock mobility and gives an overview of the work of key development actors in promoting this. Finally, it indicates the main issues that need to be addressed: improving livestock marketing, supportive land and decentralisation policy and legislation, promoting peaceful co-existence, making the economic argument for pastoralism and strengthening pastoral civil society.

Simkins P. 2005. **Regional Livestock Study in the Greater Horn of Africa**. Nairobi: International Committee of the Red Cross (ICRC). 304pp. (www.celep.info/?p=928)

A 9-month study was made in 2003–04 of the livestock sector and related conflicts over natural resources in Djibouti, Eritrea, Ethiopia, Kenya, Somalia and Sudan. The main aims were to provide a comprehensive picture of the current situation of pastoralists in this region and likely future developments and to design ICRC aid guidelines related to livestock-keeping at regional and country level. The report documents the changing role of livestock in land-use systems in the region, livestock-related tensions or conflicts, and alternative (non-livestock) support mechanisms for livelihoods of local people. It includes a review of interventions, policies, networks, databases and early warning systems (EWS) in the Horn. By taking a regional approach and incorporating crossborder issues, the study could recommend ways to harmonise approaches to emergency aid and development in the Horn. The author gives much attention to the contrast between the concept of “equilibrium environments”, where range resources are affected by livestock density, and “disequilibrium environments”, where the number of animals has less influence than does rainfall, drought or conflict on the availability of range resources. Applying equilibrium thinking in much of the HoA leads to undergrazing the pastures and effectively reduces productivity. In disequilibrium environments, a more flexible response is required – a tracking strategy (matching animal numbers and feed supply) and/or opportunistic management with high levels of mobility and associated drought-contingent planning.

3. Harmonisation of regional policies

African Union. 2010. **Policy framework for pastoralism in Africa: securing, protecting and improving the lives, livelihoods and rights of pastoralist communities**. Addis Ababa: Department of Rural Economy and Agriculture. 38pp. (www.celep.info/african-union-adopts-new-policy-framework-on-pastoralism)

The African Union’s policy framework on pastoralism highlights government commitments and responsibilities towards pastoralists. Governments need to review their policies with a view to developing comprehensive national policies that take into account the specific needs of pastoralism and build adequate human, financial and technical capacities to support pastoral development.

Bonnet B & Herault D. 2011. **Gouvernance du foncier pastoral et changement climatique au Sahel : Renforcer les capacités des acteurs du foncier dans la sécurisation de la mobilité et de l'accès équitable aux ressources pastorales**. *Revue des Questions Foncières* 2 : 157–188. (<http://vulnerabilite.iram-fr.org/index.php?page=142>).

Dans les zones sahéniennes, l'élevage occupe la première place des productions agricoles, devant une agriculture très exposée aux aléas. Par leur adaptabilité aux incertitudes, les sociétés pastorales apparaissent certes vulnérables, mais également résilientes. Souvent peu soutenus par les politiques publiques, les pasteurs ont su sans cesse moderniser leurs systèmes de mobilité, s'adaptant aux contraintes nouvelles rencontrées et intégrant de nombreuses innovations. Malgré de tels atouts, ces modes d'exploitation nécessairement mobiles pour vivre en milieu en non-équilibre, ont longtemps été perçus comme inadaptés, la priorité étant accordée à la sédentarisation et à l'intensification. A l'heure où les principaux modèles climatiques au Sahel s'accordent sur l'augmentation des risques d'événements exceptionnels, une convergence des politiques publiques se fait jour en faveur de la

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sécurisation des systèmes et droits pastoraux. Cependant, au Niger où le cadre juridique est l'un des plus propices, il reste encore peu appliqué. Ainsi des démarches de sécurisation du foncier pastoral à l'échelle communale et intercommunale ont été développées en mobilisant les acteurs de la gouvernance du foncier dans la mise en œuvre d'une stratégie de sécurisation de la transhumance et de gestion équitable des puits pastoraux. La sécurisation du foncier pastoral ainsi développée met en évidence le renforcement des dynamiques des sociétés pastorales face aux enjeux du changement climatique et de la pression démographique. Elle soulève aussi différentes limites et interrogations

Commission de la CEDEAO. 2008. **La politique agricole régionale de l'Afrique de l'Ouest : l'ECOWAP : Faire de l'agriculture le levier de l'intégration régionale.** CEDEAO (Communauté économique des États de l'Afrique de l'Ouest. 12pp. (www.diplomatie.gouv.fr/fr/IMG/pdf/01_ComCEDEAO.pdf).

Dyer N. 2008. **Review of the legislative and institutional environment governing livestock mobility in East and West Africa.** Securing Pastoralism in East and West Africa: Protecting and Promoting Livestock Mobility. London: IIED. 58pp. (www.celep.info/mobile-herders-and-legislation-in-east-west-africa)

As part of the project "Securing Pastoralism in East and West Africa: Protecting and Promoting Livestock Mobility" of the International Institute for environment and Development (IIED), this desk review summarises the legislative and institutional environment governing livestock mobility in East and West Africa at local, national, regional and continental levels, with a specific focus on Burkina Faso, Chad, Ethiopia, Mali, Mauritania, Niger, Nigeria, Somaliland and Sudan. This also refers to transhumance corridors (Section 1 of this bibliography).

Ly Ibrahima. 2004. **Essai de présentation des tendances d'évolution du droit pastoral en Afrique de l'Ouest : Burkina-Faso, Guinée, Mali, Mauritanie, Niger, Sénégal.** *Études juridiques de la FAO en ligne* #35. 32pp. (www.fao.org/fileadmin/user_upload/legal/docs/lpo35f.pdf)

4. Pastoral organisation and strengthening pastoralist voice in policy dialogue

Hesse C & Pattison J. 2013. **Ensuring devolution supports adaptation and climate-resilient growth in Kenya.** *IIED Briefing.* London: IIED. 4pp. (www.celep.info/community-adaptation-funds-in-the-kenyan-drylands)

Effective governance of natural resources is crucial for adaptive capacity and climate-resilient growth. Climate change will hit dryland communities severely because it exacerbates existing structural causes of poverty and inequality. Poor governance and exclusion of local voices (particularly from planning and managing of use of natural resources) has eroded pastoralist communities' distinctive capacity to adapt. But building on Kenya's new Constitution, a devolved Climate Adaptation Fund is being piloted in Isiolo County in Kenya's arid and semiarid lands (ASALs). The fund, which is managed by the local government, supports locally prioritised adaptation investments. This briefing paper argues that devolved adaptation funding is the best way to harness local knowledge in support of climate-resilient development. However, achieving this takes time, investment and involvement from a range of stakeholders, to build shared understanding about adaptation priorities and a more harmonised approach to planning. Provision of climate information can help reduce climate impacts, but only if communities and other planners can act on it in a coordinated and timely way. It is vital that adaptation is planned at appropriate scales and is not restricted by administrative boundaries. Such Community Adaptation Funds can integrate local adaptive strategies and innovations into national policy, providing insights that could also help reform development planning elsewhere in the drylands.

IUCN. 2011. **The land we graze: a synthesis of case studies of how pastoralists' organizations defend their land rights.** Nairobi: IUCN Eastern and Southern Africa Regional Office. 48pp. (www.celep.info/the-land-we-graze-pastoralists-defend-their-rights)

This report analyses and synthesises case studies from 17 partners in four continents who are engaged in improving the livelihoods of mobile livestock-keepers. The African case studies come from Burkina Faso, Cameroon, Ethiopia, Niger and Uganda. These show how pastoralists succeed to organise themselves and to defend their rights to natural resources to secure their livelihoods. The examples include mechanisms to manage common property and techniques for insuring legal recognition of customary management arrangements. Organisation of pastoralists to assert their land rights proved to be essential to assert also other rights of pastoralists.

Jode H de & Hesse C. 2011. ***Strengthening voices: how pastoralist communities and local government are shaping strategies for adaptive environmental management and poverty reduction in Tanzania's drylands***. London: IIED / Dublin: Kimmage Drylands Study Centre. 40pp. (www.celep.info/pastoral-communities-shape-their-strategies-on-environment-and-poverty)

Across Tanzania, climate change is being felt in the changing patterns and intensity of rainfall, and in the growing unpredictability of the seasons. The drylands are being increasingly affected, and there is urgent need to strengthen institutional capacity and good governance for drylands planning. Pastoralism provides over 90% of the meat and milk products consumed nationally in Tanzania. The pastoralist production system successfully exploits and adapts to the disequilibrium in the dryland ecosystems, but pastoralist voices are frequently excluded from the decision-making and management of dryland resources. IIED, the Kimmage Development Studies Centre and the Tanzania Natural Resource Forum undertook a project with the goal of generating more informed and equitable discussion and debate on pastoralism. Using local government reform processes, the Strengthening Voices project works at community, local-government and national levels, addressing the lack of knowledge and the power imbalances within all three. The central pillar of the project is a training course on the economic and ecological processes at the heart of pastoral systems — clarifying the rationale that underpins livelihood strategies. National politicians, local district officials and community participants have all benefited from the training. With their new evidence, training and advocacy skills, people are better able to inform policy of the economic and environmental benefits of dryland livelihood systems. This booklet and accompanying DVD explain the background to the project and its achievements.

Watson C. 2003. ***Pastoral women as peacemakers***. Nairobi: Community Based Animal Health and Participatory Epidemiology (CAPE) Unit African Union/Inter-African Bureau for Animal Resources (AU/IBAR). 44pp. (www.celep.info/pastoral-women-as-peacemakers)

Research commissioned by CAPE looked into the traditional roles of pastoral women in peace and conflict, seeking to gain a better understanding of the strengths and weaknesses of different methods for working with pastoral women on conflict issues. It included documentation of the methodology and impact of the *alokita* – Women's Peace Brigade – method that had been used by the CAPE Unit since 2001. The study confirmed that women play important roles, both positive and negative, with regard to raiding and other forms of conflict. Women's support of raiding is linked to the acute economic hardship within the Karamojong Cluster. This indicates that conflict must be tackled by improving the economic wellbeing of pastoralists. The informal power held by women in pastoral households is crucial for peacebuilding interventions to build on. Women can greatly influence the behaviour of husbands and sons, and intervening organisations should encourage the positive impacts that women can make. The informal power complements the increasing participation of women in formal structures such as District Peace and Development Committees, although these tend to involve urban women who may be rather distant from the day-to-day concerns of pastoral communities. The research revealed the efficacy and urgency of involving pastoral women in peacebuilding.

5. Alternative livelihoods

Catley A & Alula Iyasu. 2010. ***Moving up or moving out? A rapid livelihoods and conflict analysis in Mieso-Mulu Woreada, Shinile Zone, Somali Region, Ethiopia***. Addis Ababa: MercyCorps / Feinstein International Center. 96pp. (www.celep.info/issa-pastoralists-in-ethiopia-changing-livelihoods-conflict)

Report on a rapid analysis of Issa pastoralist livelihood and conflict. Recommends policy and legal support to pastoralist communal land use and protection of pastoral areas from landgrabbing, support education to allow economic diversification especially for people moving out of pastoralism, reducing barriers to women and girls accessing education and health services and supporting livelihoods-based responses to drought such as commercial destocking, targeted feed supplementation and veterinary voucher schemes

Fratkin E, Nathan M & Roth EA. 2012. ***Seeking alternative livelihoods in northern Kenya: costs and benefits in health and nutrition***. 21pp. (www.celep.info/?p=1786)

With increasing destitution and political instability, former pastoralists have settled in rural, urban and peri-urban settings to seek alternative livelihoods based on various strategies, including selling livestock and their products, cropping, wage labour, entrepreneurial activities and transportation. Women play a key role in petty trade. This paper looks at experiences of recently settled Rendille and

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Ariaal/Samburu communities in Marsabit District in northern Kenya, especially the effects of settled life on diet and nutrition. Sedentarisation and alternative livelihoods lead to greater food security, improved healthcare and better access to formal education, but also to increased malnutrition and morbidity among the children. It is recommended that support agencies pursue ways to introduce and maintain dairy animals in the settled communities so that the transition to settlement has less negative effects on child health. This paper was originally presented at the 2011 conference on “The Future of Pastoralism in Africa” in Addis Ababa and was also published in the book [Pastoralism and development at Africa: dynamic change at the margins](#).

Humanitarian Policy Group (HPG). 2009. **Getting it right: understanding livelihoods to reduce the vulnerability of pastoral communities**. Synthesis paper. London: ODI HPG / REGLAP. 4pp. (www.celep.info/understanding-livelihoods-to-reduce-pastoralist-vulnerability)

This synthesis of a study on pastoralist vulnerability in the Horn of Africa calls for a better understanding of the diversity of pastoral livelihoods when designing emergency preparedness, planning and response mechanisms. The increasing vulnerability that pastoralists face comes from providing short-term food aid rather than implementing longer-term measures to address underlying causes of food insecurity, failing to put protection of pastoralist livelihoods at the centre of humanitarian aid, weakening coping strategies such as herd mobility and giving insufficient attention to enabling poor households to pursue economic alternatives to pastoralism.

Headey D, Alemayehu Seyoum Taffesse & Lianghi You. 2012. **Enhancing resilience in the Horn of Africa: an exploration into alternative investment options**. IFPRI Discussion Paper 01176. Washington DC: International Food Policy Research Institute. 40pp. (www.celep.info/?p=804)

The 2010–11 drought in the Horn of Africa caused a devastating famine in southern Somalia and raised concerns that pastoralist livelihoods in the Horn are no longer viable. Arguments to sedentarise pastoralists and diversify their livelihoods are countered by advocates for protecting pastoralist livelihoods. This IFPRI discussion paper addresses the question of where public resources should be invested. It argues that economic theory and the existing evidence base warrant a more balanced development strategy involving movement out of pastoralism, modernisation of pastoralism and crosscutting transformations of the demographic, social and political structure of populations in drylands. It was found that most nonpastoralist livelihoods in the drylands yield lower incomes than do pastoralism, with the exception of urban livelihoods and irrigated farming, but these have limited capacity to absorb growing populations. Being the dominant livelihood for the foreseeable future, and potentially quite a profitable one given growing demand for livestock products, pastoralism needs to be an important component of local and regional development strategies. The paper argues that the pastoralist sector should be transformed into a more profitable, more integrated and more resilient economic system by investing in: 1) commercialising pastoralism (improving competitiveness, value addition, poverty impact and outreach of livestock markets); 2) improving natural resource management; 3) economic diversification in a manner compatible with existing pastoralist livelihoods; 4) improved social infrastructure (health, nutrition, education); 5) improved physical infrastructure (mainly roads, mobile telephony and irrigation where profitable); 6) more effective disaster risk management strategies; and 7) a range of governance efforts, including efforts at better protection of pastoralist property rights, strengthening conflict-resolution mechanisms and promoting bottom-up policymaking.

Jebessa Teshome & Zelalem Bayissa. 2014. **A literature review report on understanding the context of people transitioning out of pastoralism (TOPs) in Ethiopia**. Addis Ababa: PRIME (Pastoralist Areas Resilience Improvement through Market Expansion) USAID / Haramaya University. 42pp. (www.celep.info/people-transitioning-out-of-pastoralism-in-ethiopia)

Various environmental and institutional pressures are threatening pastoral ways of life. Increasing numbers of pastoralists are shifting to agropastoralism or seeking nonpastoral sources of livelihood. One component of the Pastoral Areas Resilience Improvement through Market Expansion (PRIME) project focuses on fostering livelihood options for people transitioning out of pastoralism to enhance resilience among pastoralist communities in Ethiopia. As part of the PRIME project, Haramaya University (HU) conducted a literature review to gain insight into the situation of people transitioning

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out of pastoralism in parts of Ethiopia. It referred to best-practice reports by NGOs working on livelihood and diversification issues in pastoral communities and research reports from national and international organisations. In view of the paucity of data on this topic, HU also collected some primary data through key-informant interviews and field observations in selected Borana, Afar and Somali areas. The review disclosed that, while an increasing number of people are transitioning out of pastoralism in recent years, the people were relatively rapidly rehabilitated through traditional coping mechanisms and/or support from NGOs and government organisations.

Little P. 2009. **Income diversification among pastoralists: lessons for policy makers.** *Policy Brief* 3. COMESA / CAADP (Common Market for Eastern and Southern Africa / Comprehensive African Agriculture Development Programme). 4pp. (www.celep.info/income-diversification-among-pastoralists)

Income diversification is an increasingly important means for herders to manage risk. The COMESA policy brief on income diversification among pastoralists points out that the proportion of income from nonpastoral sources exceeds 20% for many dryland areas in Eastern and the Horn of Africa – a figure considerably higher than most policymakers assume. The brief distinguishes between "good" and "less good" forms of diversification. It highlights that irrigated agriculture and other expensive infrastructure projects in pastoral areas are not sustainable. Interventions that support small-scale enterprises in the rural areas can provide livelihood sources for poor and ex-pastoralists in ways that add value to the local economy and sustain livestock production by those who remain in pastoralism.

Little PD, Aboud AA & Lenachuru C. 2009. **Can formal education reduce risks for drought-prone pastoralists? A case study from Baringo District, Kenya.** *Human Organization* 68 (2): 154–165. (www.celep.info/formal-education-pastoral-risk-management)

This paper argues that formal education should figure prominently in strategies and planning for pastoral risk management, since engaging in labour markets is a critical component of pastoralist livelihoods, and this is facilitated by education. Through a case study of the Maasai-related Il Chamus people of Baringo District, Kenya, the paper explores whether formal education reduces risks for pastoralists, and what social and economic conditions facilitate positive roles for herder education. The authors document local trends in education achievement over the period 1980–2004, contributions of education to local livelihoods, and the effects of a tightening labour market and budget restrictions on opportunities for education and employment. It is concluded that formal education should be viewed as a supplement to support pastoralism rather than to replace it.

Nassef M, Anderson S & Hesse C. 2009. **Pastoralism and climate change: enabling adaptive capacity.** London: ODI HPG / REGLAP. 26pp. (www.celep.info/pastoralism-and-climate-change)

This report from the Humanitarian Policy Group (HPG) of the Overseas Development Institute (ODI) is one of six reports prepared for the ECHO-funded project on "Reducing the vulnerability of pastoral communities through policy and practice change in the Horn and East Africa". The project aimed to raise awareness among planners and policymakers about the full potential of pastoral systems to contribute significantly to the economies of the region. Each report presents evidence-based research findings to overcome misconceptions and misunderstandings about pastoral livelihoods, and highlights appropriate policy recommendations to favour pastoralist systems. The reports present evidence to help inform thinking so that policymakers can keep abreast of new opportunities and threats in the rangelands. The term "pastoralism" is used to describe societies that derive some, but not necessarily all, of their food and income from livestock. For decades, many governments regarded pastoralism as "backward", economically inefficient and environmentally destructive, and made policies that marginalised and undermined pastoralist systems. More recently, a wider understanding has developed that pastoralism is a viable and economically effective livestock production system. However, the policies needed to reverse its historical marginalisation and address the chronic levels of poverty and vulnerability faced by many pastoralist communities have yet to be put in place. The paper defines pastoralists in both the economic sense (those who earn part of their living from livestock) and the cultural sense, in which livestock do not form the main source of income, yet people remain culturally connected to a pastoralist lifestyle. The evidence presented in these reports suggests that herding livestock over rangelands will remain part of a vital and dynamic production system for many –

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but not all – who live in the arid and semi-arid lands of the Horn and East Africa. Appropriate policies are required that support both the economic potential of pastoralism and pastoralist lifestyles that depend on alternative livelihoods.

Ondijo Ojwang D. 2009. ***Pastoralists dropout study in Jijiga, Shinile and Fik Zones of Somali Region, Ethiopia***. Nairobi: Save the Children UK. 66pp.

https://www.shareweb.ch/site/Agriculture-and-Food-Security/aboutus/Documents/pastoralism/pastoralism_biblio_ondijo_2009.pdf

Save the Children. 2013. ***Shifting livelihoods: trends of pastoralist drop-out and rural to urban migration in Mongolia***. Ulanbataar: Save the Children. 16pp.

<http://reliefweb.int/report/mongolia/shifting-livelihoods-trends-pastoralist-drop-out-and-rural-urban-migration-mongolia>

An abrupt cessation of traditional pastoralist livelihood activities, whether dictated by circumstance or more voluntary in nature – and subsequent rural to urban migration – is rapidly increasing in Mongolia and is accompanied by profound and comprehensive demographic, socio-economic, and socio-cultural changes. Rural to urban migration has been happening for nearly a half century but, during the two decades since the end of the socialist era, the rate has increased enormously. The trend in urbanisation is strongly correlated to increasing vulnerability resulting from a progressive deterioration of rural livelihoods systems, most notably the livestock sector. It is driven by long-term, slow-onset stress migration, resulting from a lack of viable livelihood options in rural areas. The declining productivity of the pastoralist livelihood system is frequently amplified by natural disasters, most notably drought and *dzuds*, which result in periodic surges in rural to urban migration rates.

Solomon Desta, Wassie Berhanu, Getachew Gebru & Dadhi Amosha. 2008. ***Pastoral drop out study in selected weredas of Borana Zone, Oromia Regional State***. Addis Ababa: USAID / RELPA / ELSE / CARE / Save the Children. 60pp. (www.celep.info/?p=810)

According to this study, addressing poverty in pastoral areas revolves around two key elements. Firstly, pastoral production should be improved and supported, not replaced, in the case of those people with the skills and interest to continue this form of livelihood so well adapted to the drylands. Secondly, attention should be given to those residents of pastoral areas who are not actively involved in pastoralism or who are leaving the system, often quite painfully. They should be helped in identifying and undertaking alternative economic activities that support, complement or at least do not undermine pastoral production. The study was made to shed some light on the profiles and possibilities of people who have dropped out of pastoralism in Borana Zone of Oromia Region in Ethiopia. It highlights the importance of human and institutional capacity building, so that those people who leave the pastoralist system are better prepared for alternative livelihoods.

Watson DJ & van Binsbergen J. 2008. ***Livelihood diversification opportunities for pastoralists in Turkana, Kenya***. ILRI Research Report 5. Addis Ababa: International Livestock Research Institute (ILRI). 37pp. (www.celep.info/livelihood-diversification-among-the-turkana-in-kenya)

This report looks at why and how Turkana pastoralists in northern Kenya have diversified their sources of livelihood by necessity (destitution, dropouts) or choice. In addition to the long-standing tradition of artisanal fishing, the Turkana are also involved in producing honey and aloe, ecotourism, charcoal-making, selling fresh and dried milk and meat as well as hides and skins, gold mining, poultry production, trading in small stock, wage labour, handicrafts and petty trade. The study identifies the socio-economic and spatial characteristics of livelihood diversification pathways, giving particular attention to gender issues, and suggests several recommendations for intervention and researchable issues.

Yacob Aklilu & Catley A. 2010. ***Mind the gap: commercialization, livelihoods and wealth disparity in pastoralist areas of Ethiopia***. Feinstein International Center/UKAID. 52pp. (www.celep.info/?p=623)

Building on a regional analysis for the IGAD-FAO Livestock Policy Initiative, Yacob Aklilu and Andy Catley of Tufts University examined how different pastoralist wealth groups in Ethiopia benefit from livestock exports. The report, focused on the Borana and Somali areas, describes the growing formal

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trade in meat and animals from pastoral areas destined for export markets. It discusses how this commercialisation trend is affecting poorer pastoralist households, which become destitute and are forced to drop out of pastoralism, and revisits the logic of safety-net and asset-building programmes for these households.

Yacob Aklilu & Catley A. 2014. **Pastoral livestock trade and growth in Ethiopia.** *Future Agricultures Policy Brief 72*. Brighton: IDS. 11pp. (www.celep.info/pastoral-livestock-trade-growth-in-ethiopia)

The export of livestock and livestock products from Ethiopia has increased greatly in recent years. Pastoralist areas supply most of the animals for export. This policy brief argues that, if this supply is to be maintained or increased, specific livestock policy support is needed, based on consultation with pastoralists, traders and other private-sector actors. Moreover, the government ministries that oversee different aspects of livestock production and trade need to be better coordinated. Commercialisation of pastoralism is associated with increasing gaps between rich and poor, and leads to dropouts from the pastoralist system. The dual presence of market-oriented pastoralism and pastoralist destitution highlights the need for initiatives to improve education and health and to create alternative employment within and outside of pastoralist areas.

6. Livestock insurance systems

Chantarat S, Mude A, Barrett C & Carter M. 2012. **Designing Index-Based Livestock Insurance for managing asset risk in northern Kenya.** *Journal of Risk and Insurance* 80(1): 205–237.

This article describes the index-based livestock insurance (IBLI) product piloted among pastoralists in northern Kenya, where insurance markets are effectively absent and uninsured risk exposure is a main cause of poverty. It describes the methodology used to design the contract and its underlying index of predicted area-average livestock mortality, established statistically using longitudinal observations of household-level herd mortality fit to remotely sensed vegetation data. Household-level performance analysis based on simulations finds that IBLI removes 25–40% of total livestock mortality risk. The article describes the contract pricing and the risk exposures of the underwriter to establish IBLI's re-insurability on international markets.

Chantarat S, Mude A, Barrett C & Turvey C. 2009. **The performance of Index-Based Livestock Insurance: ex-ante assessment in the presence of poverty trap.** Ithaca, New York: Cornell University. 45pp. (www.gwu.edu/~iiep/assets/docs/barrett_ibli.pdf)

This paper evaluates the effectiveness of a new index-based livestock insurance (IBLI) product designed to compensate for average predicted livestock mortality loss in northern Kenya. The authors simulate household-specific wealth dynamics based on a model parameterised using panel and experimental data from the region, in order to investigate patterns of willingness to pay for asset index insurance that is imperfectly correlated with the losses experienced by individual herd owners. Willingness to pay among vulnerable groups who most need insurance are, on average, lower than commercially viable rates, but subsidisation of IBLI premiums appears to offer more cost-effective poverty reduction than direct transfers to the poor.

Greatrex H, Hansen JW, Garvin S, Diro R, Blakeley S, Le Guen M, Rao KN & Osgood DE. 2015. **Scaling up index insurance for smallholder farmers: recent evidence and insights.** CCAFS Report 14. Copenhagen: CGIAR Research Program on Climate Change, Agriculture and Food Security (CAAFS). 30pp. (www.celep.info/index-based-livestock-insurance-in-kenya-and-ethiopia)

In this report, the fifth case study is on index-based livestock insurance for pastoralists in Kenya and Ethiopia. ILRI (International Livestock Research Institute), in partnership with Cornell University and University of California–Davis, sought to stabilise asset accumulation and enhance economic growth by setting up a system whereby pastoralists could insure against the loss of their livestock because of drought. The insurance system operates in Marsabit, Isiolo and Wajir in northern Kenya and in the Borana Region in southern Ethiopia. The case study shows how several technological, structural and financial challenges to the insurance system were overcome. Adapting the index design to incorporate client feedback enabled a more client-driven process that the pastoral communities may be more willing to trust. It was interesting to note that, although women rarely own livestock or attended public meetings where information about the insurance was disseminated, they bought more insurance

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coverage than did men. This may be because women i) have more liquidity as they participate in petty trade; ii) are more risk adverse; and/or iii) are more open to innovation.

Jensen ND, Barrett CB & Mude AG. 2015. **The favorable impacts of Index-Based Livestock Insurance: evaluation results from Ethiopia and Kenya.** Nairobi: ILRI. 5pp.
(www.celep.info/impacts-of-index-based-livestock-insurance-in-ethiopia-kenya)

Development institutions have invested millions in developing and piloting index-based livestock insurance (IBLI) because they see large potential benefits for reducing risk for agricultural households in developing countries, especially in arid and semiarid areas. An IBLI scheme was launched in Eastern Africa in 2010. The Index Insurance Innovation Initiative (University of California David) seeks to test the hypothesis that, by removing correlated risk from the smallholder agricultural and pastoral systems, it will be possible to reduce poverty and deepen financial markets in these areas. The 5-page brief "The favorable impacts of Index-Based Livestock Insurance: evaluation results from Ethiopia and Kenya" draws together findings from several longitudinal evaluations in southern Ethiopia and northern. It reveals positive impacts on subjective, economic and health-related indicators of wellbeing, especially in the midst of droughts. More than 40% of sampled households had purchased insurance coverage at least once. Although an upward trend in cumulative adoption could be discerned, there was also a substantial rate of disadoption.

Lind J & Birch I. 2014. **Social protection in pastoral areas: promoting inclusive growth at the margins.** *Future Agricultures Policy Brief 70.* Brighton: Institute for Development Studies (IDS). 8pp. (www.celep.info/wp-content/uploads/2014/06/2014-FAC-Policy-Brief-70.pdf).

Vulnerability and poverty levels seem to be deepening in many pastoral areas of the Horn of Africa, despite increasing livestock commercialisation and market integration. The recent economic investments in pastoral areas have not led to benefits in terms of food security and better nutrition. Chronically food-insecure people cannot engage in more productive livestock-keeping or other growth-oriented economic activities. Strengthening social protection systems in the Horn is prerequisite for realising more inclusive growth. This brief discusses the challenges of designing and implementing safety-net programmes in pastoral areas of Ethiopia, Kenya and Uganda, and draws attention to recent experiments with index-based livestock insurance. It offers policy recommendations related to investing in public goods, broadening concepts of risk, creating an enabling environment for innovation in programme design and implementation, and linking social protection to more effective early responses to shocks.

Luxbacher K & Goodland A. 2011. **Building resilience to extreme weather: Index-Based Livestock Insurance in Mongolia.** *World Resources Report Case Study.* Washington DC: World Resources Institute (WRI). 13pp.
(www.wri.org/sites/default/files/wrr_case_study_index_based_livestock_insurance_mongolia_.pdf)

7. Access to veterinary and other services

Birch I & Lind J. 2014. **Investment in drylands: widening the benefits for food security and development.** *Future Agricultures Policy Brief 71.* Brighton: Institute for Development Studies. 8pp.
(www.celep.info/wp-content/uploads/2014/06/2014-FAC-Policy-Brief-71.pdf)

After decades of comparative neglect, the Horn of Africa is experiencing unprecedented investment. Large-scale infrastructure projects now dominate national development plans. They provide an opportunity to reduce long-standing inequalities in provision of public goods and services. However, some investments have widened social differentiation in pastoral areas: a few benefit, but the percentage of poor and very poor pastoralists is increasing. This brief argues that state-driven investments should provide for the greater public good. Careful planning and management are needed if investment is to contribute to inclusive growth rather than deepen poverty. The authors call for evaluating the poverty impacts of investment, broadening the benefits of public investment, and coordinating and building synergies between investments in ways that make pastoralists less vulnerable to shocks and better equipped to take advantage of processes of economic transformation.

IUCN (International Union for the Conservation of Nature). 2012. **Supporting sustainable pastoral livelihoods: a global perspective on minimum standards and good practices.** 2nd ed. Nairobi:

IUCN Eastern and Southern Africa Regional Office. 33pp.
(http://cmsdata.iucn.org/downloads/manual_for_min_standards_low_resolution_may_2012.pdf)

Leyland T, Lotira R, Abebe D, Bekele G & Catley A. 2014. **Community-based animal health workers in the Horn of Africa: an evaluation for the Office of Foreign Disaster Assistance**. Addis Ababa: Feinstein International Center, Tufts University Africa Office / Great Holland: Vetwork UK. 84pp. (www.celep.info/community-based-animal-health-workers-in-the-horn-of-africa)

Community-based animal health worker (CAHW) services evolved in Eastern Africa in the late 1980s, especially in more remote pastoralist areas where conventional veterinary services were limited or absent. Although controversial, CAHWs became recognised as a critical approach for rinderpest eradication in conflict-affected areas such as South Sudan and the Afar region of Ethiopia. During the early 2000s, the Feinstein International Center (FIC) of Tufts University worked with the African Union Interafrican Bureau for Animal Resources (AU-IBAR) to collect evidence on the impact of CAHWs and a range of issues affecting the quality and financial sustainability of services. This process contributed to institutional and policy support to CAHWs internationally and in some countries. In 2013, the US Office for Foreign Disaster Assistance commissioned an evaluation of CAHWs in Kenya, Ethiopia and South Sudan. The report describes the evaluation process and findings. Overall, CAHWs continued to be the preferred service provider at community level in the face of weak veterinary governance at central levels. As imports of veterinary pharmaceuticals have increased through the private sector, there are growing concerns over national capacities to test new products and provide adequate quality control. Although there is great potential to use CAHWs in official disease surveillance, this potential remains unrealised due to weak linkages between government and CAHWs in remote areas.

Morton J & Kerven C. 2013. **Livelihoods and basic service support in the drylands of the Horn of Africa**. *Technical Consortium for Building Resilience to Drought in the Horn of Africa Brief 1* (CGIAR/FAO Investment Centre). Nairobi, Kenya: ILRI. 34pp. (www.celep.info/livelihoods-and-services-in-the-drylands-of-the-horn)

Recurrent crises and continuing need for relief assistance in the drylands underscore the need to build household resilience. The paper assesses past interventions to support pastoralist livelihoods through basic services in animal health, range improvement, animal breeding, feed supply, marketing, insurance, human health and education, and social protection (safety nets, insurance). It identifies some areas of best practice, including: community-based animal health worker (CAHW) programmes; small-scale irrigation to produce high-value crops for assured markets; collecting and marketing bio-products such as resins, honey and aloe; innovative distance learning for pastoralists in northern Kenya; programmes to realise synergy between animal and human health services; and piloting index-based livestock insurance in northern Kenya. Key challenges for development in the drylands include: upscaling and providing an enabling policy environment for CAHW programmes; designing animal disease control systems that pastoralists and national governments can afford; conserving indigenous breeds; developing methods for equitable distribution of tourism and wildlife conservation revenues; supporting spontaneous intensification processes that are equitable and environmentally sustainable; documenting and disseminating good practice in supporting livelihood diversification; and new thinking on institutional models for delivering basic services to pastoralists.

Perry B & Sones K. 2009. **Strengthening demand-led animal health services in pastoral areas of the IGAD region**. IGAD Livestock Policy Initiative Working Paper 09-08. 19pp.
(www.celep.info/strengthening-demand-led-animal-health-services-in-the-horn)

This paper explores the opportunities for improving the quality of animal health services, targeting two key issues: i) improving market access for livestock and livestock products at local, national, regional and international levels; and ii) reducing vulnerability of poor livestock keepers in the face of shocks and crises. It emerged from a workshop convened by IGAD on demand-led animal health services, where the participants considered how to facilitate the growth and availability of credible, coordinated and regulated animal health services, provided by a diverse range of appropriate suppliers, which will contribute towards improved market access and reduced vulnerability of livestock-dependent communities. The paper makes a critical review and synthesis of various approaches that could enable this to be realised.

Schelling E, Weibel D & Bonfoh B. 2008. **Learning from the delivery of social services to pastoralists: elements of good practice**. Nairobi: World Initiative for Sustainable Pastoralism

(WISP). 35pp. (www.celep.info/wp-content/uploads/2012/12/Schelling-et-al-2009-social_services_to_pastoralists.pdf)

The state of provision of social services to pastoralists is one of the most evident signs of marginalisation and exclusion by national policymakers. Mobility and difficult physical environment are often used as excuses for underdevelopment of these services in pastoral areas. Nevertheless, various innovative approaches to providing social services to pastoralists have come to light in many parts of the world. WISP commissioned a study on provision of services to mobile pastoralists. This may but need not always imply mobility of services: good practice can also include making static services appropriate to pastoralists. The study uses several examples, particularly from Africa and Asia, to show how social services have been adapted to pastoralism in different contexts, such as through community health workers and traditional birth attendants. The study was conducted in collaboration with the Swiss Tropical Institute and focuses primarily on education and human health services. It includes an example of combined provision of mobile and static health services in Kenya, and joint human and animal vaccination services.

8. Maintaining water infrastructure

CARE. 2011. **Sécuriser l'accès à l'eau pour préserver la paix: une recherche-action menée par CARE en zone pastorale du Niger oriental**. 19pp. https://www.shareweb.ch/site/Agriculture-and-Food-Security/aboutus/Documents/pastoralism/pastoralism_biblio_care_2011.pdf

Cotula L (ed). 2006. **Droits foncier et l'accès à l'eau au Sahel : défis et perspectives pour l'agriculture et l'élevage**. IIED Dossier 139. London: IIED. 100pp. https://www.shareweb.ch/site/Agriculture-and-Food-Security/aboutus/Documents/pastoralism/pastoralism_biblio_cotula_2006.pdf

Jullien F. 2013. **Le pastoralisme pour la paix: quels enseignements tirer des interventions de l'AFD dans le domaine de l'hydraulique pastorale au Tchad et au Niger pour promouvoir le développement et la sécurité dans la bande soudano-sahélienne?** La contribution de l'élevage pastoral à la sécurité et au développement des espaces saharo-sahéliens, Colloque Régional de N'Djamena, 27–29 mai 2013. 8pp. (www.pasto-secu-ndjamena.org/classified/J2-3-7-FJullien-AFD_HP.pdf?PHPSESSID=b679b3fa6c839f20fb8ac39d63136d28)

L'AFD a octroyé depuis 20 ans environ 70 M € de subvention pour financer des actions d'hydraulique pastorale au Tchad et au Niger – ce qui a permis la réalisation ou la rénovation de 1200 points d'eau pastoraux et de 3000 km de pistes de transhumance. L'objectif initial principal de ces interventions était de sécuriser la mobilité des troupeaux et d'accroître la production animale en ouvrant de nouveaux pâturages dans des zones antérieurement dépourvues de puits et en ralentissant la descente des hommes et des animaux vers les zones soudaniennes cultivées. Les évaluations réalisées ont démontré que ces interventions avaient eu comme « effet collatéral » un impact positif déterminant pour lutter contre les diverses formes d'insécurité (physique, économique, environnementale) : présence et occupation de l'espace sur de vastes zones antérieurement délaissées, suppression des conflits autour de la gestion des points d'eau et des pâturages (du fait de la mise en place d'instances efficaces de concertation autour des ouvrages), création de valeur (accroissement de la production animale) et d'emplois rémunérateurs pour les pasteurs, amélioration de la résilience des troupeaux et des sociétés pastorales face aux chocs (climatique en période de sécheresse) et surtout par la création de liens et de dialogue entre éleveurs ainsi qu'entre éleveurs du nord et agriculteurs du sud. Cette expérience est riche d'enseignements pour l'ensemble de la zone sahélienne.

Teyssier A. 2000. **Créer et gérer un point d'eau pour les troupeaux de son village : guide à l'usage des agents de développement rural en zone soudano-sahélienne**. Agrodok 27. Wageningen : Agromisa. 76pp. (www.quae.com/fr/r158-creer-et-gerer-un-point-d-eau-pour-les-troupeaux-de-son-village.html)

Ce guide vise à aider les communautés paysannes de la zone sahélo-soudanienne à financer, aménager et gérer des points d'eau pour les troupeaux de leur village. Il s'adresse aux agents de

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développement intervenant en hydraulique pastorale dans cette zone, qui peuvent s'inspirer d'une méthode abondamment décrite dans l'ouvrage et utilisée depuis 1994 par les animateurs d'un projet mené au Nord-Cameroun sous l'égide du Ministère de l'Agriculture du Cameroun et de la Sodécoton : le projet Développement paysannal et gestion de terroirs, financé par l'Agence française de développement et le Fonds français d'aide et de coopération.

Bron-Saidatou F & Yankori SS. 2015. **Les puits pastoraux**. Note d'information législation. Niamey: Réseau National des Chambres d'Agriculture du Niger. 4pp. (www.reca-niger.org/spip.php?article843)

Noudjia KK, Oumarou A & Assane C. 2002. **Étude du cadre juridique et institutionnel relatif aux unités de gestion des eaux (UGE)**. Niamey: Ministère de l'Hydraulique, de l'Environnement et de la Lutte contre la Désertification. 117pp. https://www.shareweb.ch/site/Agriculture-and-Food-Security/aboutus/Documents/pastoralism/pastoralism_biblio_noudjia_2002.pdf

Ministère de l'Hydraulique et de l'Environnement. 2011. **Guide national d'animation en hydraulique pastoral**. Niamey : Ministère de l'Hydraulique et de l'Environnement. 59pp. (www.pseau.org/outils/biblio/resume.php?d=5637)

Ce guide d'animation et de formation des adultes se fonde sur la participation, l'auto découverte et la visualisation. Il est organisé autour de trois grandes parties représentant les trois grandes phases d'un processus de mise en place d'un point d'eau moderne, à savoir la préparation, le fonçage et l'exploitation. C'est un outil dynamique, flexible et adaptable à la diversité du contexte pastoral nigérien en particulier et sahélien en général. Il convient de combler un vide et d'aider à une meilleure rationalisation de l'exploitation des ressources naturelles en milieu pastoral.

9. Managing water resources

Avery S & Tilstone V. 2015. **Good practice principles on planning for water and irrigation for crop agriculture in the drylands of the Horn of Africa**. Nairobi: DLCI (Drylands Learning and Capacity Building Initiative for Improved Policy and Practice in the Horn of Africa) / ECHO /SDC. 16pp. (www.celep.info/good-practice-principles-for-water-and-irrigation-in-the-horn).

Based on existing studies and recent reviews by DLCI and FAO, this provides some principles and lessons learnt on water supply and crop farming in the drylands of the Horn of Africa (HoA) with a particular focus on Kenya. The HoA drylands are characterised by low and variable rainfall, high ambient temperatures and evaporation rates, and highly seasonal surface water resources. Groundwater resources are largely finite: ancient water sources that are not being replenished. Perennial rivers from moister highlands pass through some dryland areas, but these rivers are being diminished through poorly regulated extraction of water upstream, often linked to irrigation schemes, which are increasingly promoted to meet food security challenges through crop farming. It is important that these interventions recognise the problem of increasing water deficit and the lessons from failed irrigation investments in the past. Over large parts of the region, groundwater is the only source of water for the pastoral communities. Investments should not undermine the existing pastoral livelihoods by taking away critical land and water resources. The full potential of livestock production to national economies remains unexploited, yet governments continue to give precedence to investments in crop farming, ignoring water availability issues, the high exploitation costs and existing evidence of the negative environmental impact of irrigation. This document brings evidence-based guidance for investment in water development in the drylands.

Barrow E, Davies J *et al.* 2007. **Pastoral institutions for managing natural resources and landscapes**. IUCN Regional Africa Regional Office Policy Brief 3. Nairobi: IUCN. 4pp. (www.celep.info/wp-content/uploads/2012/08/2007-WISP-Pastoralist-institutions-for-managing-natural-resources.pdf)

Pastoralists have adapted to the uncertainty of their environment in many ways, but a key feature is their strong social organisation. They have developed complex customary institutions to enable flexibility and opportunism in managing and using natural resources, in order to allow mobility and to

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enable pastoralist societies to withstand extreme pressures. Their customary institutions are integral to their social safety nets and shared claims over productive assets. This policy paper examines the multiple forces exerting pressure on pastoralists, focused on groups in Eastern Africa, and highlights policy changes needed to ensure their survival.

Flintan F, Behnke R & Neely C. 2013. **Natural resource management in the drylands in the Horn of Africa**. *Technical Consortium for Building Resilience to Drought in the Horn of Africa Brief 1* (CGIAR/FAO Investment Centre). Nairobi, Kenya: ILRI. 50pp. (www.celep.info/?p=1256)

The natural resources in lowlands in the Horn are used mainly by pastoralists and agropastoralists trying to cope with low and unreliable rainfall, low soil fertility and recurring drought. It is important to ensure that policies and institutions are in place to improve resilience and productivity, in order to reduce recurring drought and food insecurity in the context of climate change. This technical brief focuses on how local NRM deals with the instability inherent in dryland ecosystems in the Horn. Pastoralism appears the most appropriate livelihood strategy in economic and ecological terms in most of the drylands because: i) the landscapes are grazing dependent; grazing stimulates plant growth, prevents bush encroachment, fertilises the soil, enhances the soil's water filtration capacity by hoof action, aids in seed dispersal to maintain pasture diversity, and enhances nutrient cycling across the ecosystem through wet and dry seasons; ii) pastoralists manage herd dynamics – herd size, breeds and movements – to capitalise on the fluctuating availability of natural pasture and water. Farmers and agropastoralists in zones that can support cropping integrate livestock and trees into their systems; they conserve and manage soil, water and nutrient resources to sustain productivity.

Institutional challenges undermining continued adaptability and resilience are associated with access to and tenure of land resources, grazing rights, access to inputs and basic services, social marginalisation, increased conflict, disintegration of traditional institutions, crossborder relationships, infrastructure and the nature of planning, administration, policymaking and policy implementation. As a result, some people in the Horn have abandoned pastoralism or added cropping or other enterprises to their portfolio. Only a few wealthy pastoralists have benefited, increasing herd sizes by appropriating resources in a context of tenure insecurity. Smallholder farmers are increasingly unable to afford inputs and are often forced into drier areas or threatened by land allocation to large commercial operations. Some initiatives are underway with potential to support sustainable natural resource management in the Horn. These initiatives can help identify priorities in research, policies and investment strategies that will enhance the resilience and productivity of livelihoods and landscapes in the Horn. The brief suggests priority areas of intervention.

Gitonga M. 2011. **Good practice principles: water development in the drylands of the Horn of Africa**. Rome: FAO / REGLAP. 11pp. (www.celep.info/?p=1796)

Reckless water development is one of the main constraints to resilience in the drylands of the Horn of Africa. This document outlines important basic principles in financing and developing the provision of water services in pastoral areas. It starts to bring together what stakeholders regard as "good practice" in both normal and emergency times and aims to initiate self-reflection on water development interventions. The second part of the document reviews the water development policies of Ethiopia, Kenya and Uganda and identifies policy issues that need to be addressed.

Gomes N. 2006. **Access to water, pastoral resource management and pastoralists' livelihoods: lessons learned from water development in selected areas of Eastern Africa (Kenya, Ethiopia, Somalia)**. FAO Livelihood Support Programme Working Paper 26. 55pp. (www.celep.info/?p=879)

Water development in pastoral drylands of Africa has always been a priority for humanitarian and development agencies and for governments. However, experts have raised increasing concerns about its numerous adverse effects. In 2006 FAO's Livelihood Support Programme reviewed the lessons learned in implementing pastoral and hydraulic projects in parts of Eastern Africa: the Haud in Ethiopia where underground cemented cisterns (*berkado*) are expanding quickly, in northeast Kenya where boreholes are multiplying, and in the riverside area of Southern Somalia where pastoralists seek access to rehabilitated irrigation canals. The study found that, in the absence of clear national policies for development of the drylands in Eastern Africa, unplanned water development represents a threat for pastoralism, even if the process of sedentarisation around new permanent water sources offers to

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a minority of the population complementary or/and alternative livelihoods with the development of agriculture and access to education. Water development is often focused on water supply and quantity to the expense of water quality. The planning of new permanent water infrastructures has been erratic and not integrated, and effective participation of the local communities in the managing and maintaining these investments has been absent or insufficient. Where water-users associations were created and trained, these faced serious challenges.

Nassef M with Mulugeta Belayhun. 2012. ***Water development in Ethiopia's pastoral areas: a synthesis of existing knowledge and experience.*** Addis Ababa: USAID/ODI/Save the Children. 50pp. (www.celep.info/providing-water-to-pastoral-communities-in-ethiopia)

Water development can make or break pastoral land-use systems. RiPPLE (Research-inspired Policy and Practice Learning in Ethiopia and the Nile region) and partners in Ethiopia made a synthesis of experience over the last 40 years in the water development sector in the country's pastoral regions. It reviewed the various approaches to water development and whether lessons had been learned and approaches changed over time within the framework of national and regional policies, plans and strategies. The research aimed to identify opportunities to build and enhance the positive effects of water development for lives and livelihoods of pastoralists. This synthesis of existing knowledge and experience reveals that many water development interventions had undermined rather than promoted development in pastoral regions, because local needs, land-use patterns, livelihood systems and ecological functions had not been sufficiently understood and considered.

Reid H, Faulkner L & Weiser A. 2013. ***The role of community-based natural resource management in climate change adaptation in Ethiopia.*** IIED Climate Change Working Paper 6. London: International Institute for Environment and Development. 66pp. (www.celep.info/?p=1292)

This paper assesses the role of participatory community-based natural resource management initiatives taken by Save the Children (SC) with pastoral communities in the lowlands of Borana and Guji zones in Ethiopia in contributing to climate change adaptation. It describes the application of an assessment methodology adapted by the IIED Climate Change Group and the International Centre for Climate Change and Development (ICCCAD) on the basis of an M&E framework for community-based adaptation developed by ARCAB (Action Research on Community Adaptation in Bangladesh). Similar sites that also suffered from drought and had the same history of development and humanitarian interventions, but had no SC interventions, were visited for comparative purposes. Results showed that much has been done at the SC sites towards moving from conventional approaches to development (and adaptation to climate variability including disaster risk reduction) to "transformative development" approaches that empower local people and support bottom-up, participatory, flexible decision-making and planning processes within a strong institutional context. It became apparent that more attention must be paid to merging local knowledge and meaningful scientific information on potential longer-term climate change impacts. Comparison with a site without SC interventions suggests that these interventions contributed to reducing livelihood vulnerability and increasing resilience of the pastoralists by leaving behind a legacy of empowered people more able to cope with and adapt to current climate variability risk through "good" development and improved institutional governance. The paper outlines the lessons learnt and recommendations generated from applying the assessment methodology at the study sites.

Nori M. 2007. ***Mobile livelihoods, patchy resources and shifting rights: approaching pastoral territories.*** International Land Coalition. 24pp. (www.celep.info/?p=1819)

This working paper of the International Land Coalition (IC) analyses the rationale behind livestock mobility in pastoral systems and the related rights of access to and control over natural resources. It looks at the role of the government and its interaction with pastoralist civil-society groups. The paper is the outcome of an articulated process mediated via a Web-based discussion group involving 123 participants. It is meant to contribute to supporting appropriate policymaking concerning.