

## PROTECTING LIVESTOCK MOBILITY ROUTES: LESSONS LEARNED<sup>1</sup>

### Why is mobility important?

Pastoralism is a highly effective production system for arid and semi-arid areas. It has the ability to feed the millions who live in these areas, whilst also making significant contributions to national, regional and international food security, national and regional economies, biodiversity and the environment. Where facilitating conditions exist, pastoralism can out-perform any alternative sustainable land use system in the drylands.<sup>2</sup>

The livestock sector in Ethiopia ranks second to coffee in generating foreign exchange. In 2006 Ethiopia earned US\$121 million from registered sales of livestock and livestock

products.<sup>3</sup> Pastoral areas not only meet most of the domestic meat demand but also are the main suppliers of livestock for export. Because of their adaptive and flexible nature pastoralists and pastoralism are uniquely placed to cope with predicted climate change.<sup>4</sup>

To enable pastoralism to effectively use drylands, pastoralists need to move their livestock<sup>5</sup> across the rangeland of patchily distributed resources, highly influenced by low, variable, unpredictable rainfall.<sup>6</sup> They need to access dry season grazing areas found along rivers or where there



**Main livestock supply routes through Somali region.** An estimate of the value of cross-border livestock exports in 2009 was between US\$250-300 million, most of it moving through Somali region (Aklilu and Catley 2010).

is a permanent water source. These not only provide critical grazing when resources elsewhere have depleted, but are part of strategies to allow wet season grazing areas to rest. It is also important for animal husbandry including the breaking of livestock-parasite cycles.

<sup>1</sup> This Brief has been produced as part of the Learning Initiative: Making Rangelands Secure. More information from: Fiona Flintan:

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<sup>2</sup> For example see COMESA 2009

<sup>3</sup> National Bank of Ethiopia Database in IIED and SOS Sahel 2010.

<sup>4</sup> Nassef et al 2009; Oba 2009.

<sup>5</sup> Indigenous livestock have a sophisticated digestive capacity to process fibrous vegetation, and are ideally suitable to a diverse landscape where production varies over time and from place to place and where grasses and shrubs are the forage supply (Rugadaya 2006).

<sup>6</sup> Pastoralists in East and Horn of Africa are mainly found in the semi-arid rangelands that tend to receive less than 1000mm of rainfall per year over less than six months, with the remaining months being relatively or absolutely dry.

Movement is also required for accessing minerals and medicinal herbs for livestock, house-building materials, supplementary or ‘famine’ foods, and other rangeland products used by the community for subsistence or income-generation. Movement may be required to avoid conflict or to defend lands, resources and community. And movement is vital for accessing markets with migration routes extending across countries and even across national borders<sup>7</sup>.

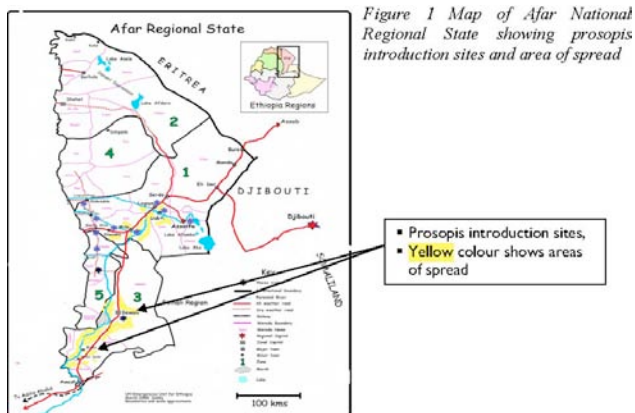


Figure 1 Map of Afar National Regional State showing prosopis introduction sites and area of spread

### Challenges to livestock mobility and its impacts

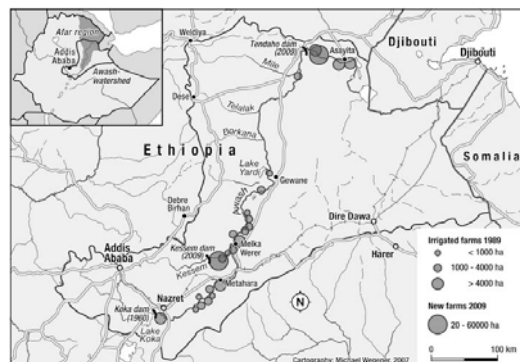
Increasingly however livestock mobility is being challenged. Mainly mobility is blocked by: i) commercial farms, in particular along riverine areas; ii) bush encroachment such as *Acacia drepanolobium* in Borana and invasive species including *Prosopis juliflora* in all regions, but particularly in Afar; and iii) uncontrolled, unplanned, private and communal fenced or unfenced livestock enclosures, fodder reserves and agricultural plots.

Source: Admassu 2008

These trends are threatening the effectiveness of pastoral production systems across the country so reducing the resiliency and increasing the vulnerability of pastoral communities in general to drought and other crises.<sup>8</sup> In order to reduce such negative impacts of these trends it is vital that migration routes start to be protected.

### Ways to protect migration routes: Experience of Niger

In Niger “mobility is a fundamental right of herders and transhumant pastoralists”.<sup>9</sup> As a result, livestock corridors are being protected across regions and villages, facilitating movement from the pastoral zone in the mid and northern parts of the country through the agricultural zone in the south. This allows use of parts of the agricultural zone during the dry season when crops have been harvested, as well



Irrigated large farms in the Awash Basin block access to water and remove vital dry season grazing (Source: Müller-Mahn et al 2010)

<sup>7</sup> In just five border areas including eastern Ethiopia/Somaliland, southern Somalia/northeastern Kenya, western Ethiopia/eastern Sudan, southern Ethiopia/northern Kenya, northern Kenya/southern Kenya, the cross-border livestock trade is estimated to be worth US\$61 million per annum with about 90% occurring through unofficial channels (COMESA 2009).

<sup>8</sup> Flintan, F (2011) “Broken lands, broken lives?” Causes, processes and impacts of land fragmentation in the rangelands of Ethiopia, Kenya and Uganda. Nairobi: REGLAP.

<sup>9</sup> As enshrined in the 2010 Pastoral Code, Article 3.

as access to livestock markets including in neighbouring countries. Cross-border movement between Niger and the majority of its neighbours is legitimised through the use of the ECOWAS (Economic Community of West African States) passport, issued by 10 of the 15 ECOWAS member states including Niger.<sup>10</sup>

Though the protection of these livestock corridors is provided for within Niger's Rural Code (1993) and revised Pastoral Code (2010), the government lacks funds for implementation. As a result NGOs and development agencies are supporting the process working hand-in-hand with local and regional governments.

For example the Swiss Development Cooperation is facilitating a project called PASEL (*Programme d'Appui au Secteur de l'Élevage* - Support Programme for the Pastoral Herding Sector), which seeks to protect migration routes at a landscape level. It was established to reduce the incidence and intensity of conflicts between pastoralists and agriculturalists on key transhumant routes.

PASEL has been implemented in three regions of the country. As a first step inter-community dialogue is carried out, together with other local actors in order to reach agreement over the location of migration routes and local grazing areas. The route is then marked out with beacons or stones, and fences protect agricultural lands. Local committees are set-up to deal with claims on infractions and ensure enforcement. A hierarchy of dispute resolution processes ensure that any conflicts are resolved transparently and equitably. GPS (geographical positioning systems) have been used to improve the mapping process. The work is linked to the establishment of services for pastoralists in the transit areas such as health centres and schools. Over 3,000 kms of livestock corridors have been rehabilitated and marked/mapped. Conflict in the area has almost disappeared.<sup>11</sup>



Livestock corridors and grazing areas mapped, from the pastoral zone through the agricultural zone in three regions in Niger facilitating movement to markets etc.

<sup>10</sup> Similar protection of livestock corridors is provided in other West African States including Mali (see A. Mulatu 2012, *Report on Pastoral Legislation in Niger and Mali*. Experience sharing report for USAID.

<sup>11</sup> Byrne, S., P. Fendrich, P. Arhold, and A. M. Acosta (2011) *Four Case Studies on the Experience of SDC and its Partners Supporting Socially Inclusive Local Governance*. SDC, IDS, InterCooperation; SDC (2005) *Programme d'appui au secteur de l'élevage (PASEL) (PASEL IV)*. Swiss Development Cooperation, Niamey.



At a village level, IFAD (International Fund for Agricultural Development) and the International Land Coalition (ILC) have also been working to protect livestock corridors. In Dan Saga Village, Aigue District they are testing a methodology with local government that allows the Village to identify and draw boundaries around privately held land (individual and group), and to protect livestock corridors between them. A title is provided to the landowners and corridors are marked out with beacons, protected by local by-laws.

A map of Dan Saga Village showing protected livestock migration routes through them.

### Experience of Sudan

Good practice can also be found closer to home. In Darfur State, Sudan, camel owners need to make protracted migrations from the north to the south in search of browse during the dry season. In 2005 a committee was set up at State level to demarcate transhumance routes and develop services along them. To date around 4,000 km of routes have been demarcated, 150 metres wide, marked with posts at intervals of 1-3 km. Farms that fell within the routes (part or whole) were removed and compensated in cash. Services are being provided along the routes including water points, schools for nomads and mobile veterinary centres. During transhumance, pastoralists are accompanied by police, local administrators, and a veterinarian.<sup>12</sup>

### Implications for Ethiopia

The protection of migration routes or livestock corridors is a must if pastoral production is to be optimised. This is becoming ever more critical as trends of land use change in Ethiopia's dryland areas progress. Livestock corridors need to be protected through and around commercial farms, and across areas where enclosures and small-scale agriculture have been established. In addition, problems such as bush encroachment and the invasion of non-local species need to be tackled. In some cases it may be necessary that fences and/or small-scale farms are removed or relocated.

How best to do this should be part of well-defined and strategic land use planning processes that seek to optimise drylands production including providing support for pastoralism. Participatory rangeland mapping and community action planning is a good starting point for this. Such processes require the involvement and commitment of all stakeholders including local land users (primary and secondary), commercial investors, and regional and local government representatives, 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.

<sup>12</sup> Pastoral Society Sudan (2007) *Sudan's Policy Towards Traditional Livestock Migration Routes (Darfur States Case)*. Report for IUCN-WISP, Nairobi.