

Livestock-based land use and change in the Bale Eco-Region: A comparative study between 2007 and 2016

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Summary

Livestock has been an integral part of the Bale landscape for centuries. Until recently, the system was extensive, allowing free mobility of a relatively small human and livestock population. Over time, people have increasingly turned to crop farming encouraged by the provision of seeds and agricultural extension services. Through the collection of both qualitative and quantitative data, this study presents the status of livestock land use and dynamics in the Bale Eco-Region in 2016, together with a comparative analysis to the situation in 2007. The study shows that trends seen 9 years ago have intensified in some parts. These trends include increasing cultivation and privatisation of grazing areas, loss of local control of land to investors and the Bale Mountains National Park (BMNP), intensification of livestock production and diversification of livelihoods. The most important issue for many,

particularly those bordering BMNP, is the recent designation of the Park, and plans to demarcate the boundaries and exclude herders and their livestock from grazing inside. Additional challenges include the lack of a livestock extension service, constraints arising from interventions failing to plan at a landscape or eco-region scale, and a declining resource base in both crop and livestock areas with an increase in invasive species. If the comparative advantage of the eco-region and its resources are to be optimised, investment in livestock needs to increase as part of an integrated landscape approach that also provides highly valuable environmental and social services. As a starting point, land-use planning processes should be implemented in a participatory, inclusive way involving all land users. As part of this, a common vision and consensus about future land use in the region must be reached.



Local community leaders mapping livestock routes in the Bale Eco-Region, Ethiopia.



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Background

The Bale Mountains Eco-Region, located in South-Central Ethiopia (Figure 1), has a rich history of livestock production. Despite a number of challenges, livestock remains the mainstay of the local economy in both highland and lowland areas. Movements across the altitudes still exist particularly among communities in the southern parts of the region, where livestock are taken to forest areas from drier lower parts in the dry season. However, the movement of livestock today tends to be more opportunistic and in response to available resources rather than the more predictable *godantu* movements of the past. Today, livestock pressures in the Bale Mountains National Park (BMNP) are greatest during the wetter months when crops are cultivated in the mid-altitude areas: figures show that there were around 726,020 heads of livestock using the afro-alpine area of the Park during the wet season in 2015.

Methodology

The research was undertaken in 2016 with fieldwork carried out in two phases: in (i) April-May, and (ii) November. The research was conducted in four districts and nine *kebeles*: Fasil Angesso peasant/pastoral association (PA) or *kebele*; Ashuta PA and Hilassa PA in Goba District; Erba PA and Berak PA in Delo Mena District; Sodu Welmal PA and Melka Arba PA in Harena Buluk District; and Gerambamo PA and Solana PA in Nensebo District. The same *kebeles* and districts were used in both the 2007 and 2016 studies to provide for the comparative analysis. Participatory tools and focus group discussions were used for qualitative data collection. Livestock routes and resources were mapped and digitised as part of this study. Secondary data sources included local government offices and non-governmental organisations (NGOs).

Findings from the study

Communities are struggling to maintain control of their lives, including food and land security. They also face difficulties in gaining access to inputs and extension services to improve their livestock production, dealing with diseases and new threats such as invasive species, and in maintaining access to the resources that are important for their livelihood systems. Conflicts between land users are increasing. This includes conflicts between communities that willingly shared grazing land and resources in the past.

According to government figures, livestock numbers have grown across the area and quite substantially in some cases. In the Bale zone, cattle numbers grew from



Figure 1. Location of the Bale Eco-Region.

2,290,163 in 2000 to 2,825,215 in 2015. The number of shoats increased from 653,676 in 2000 to 1,934,461 in 2015. Equines increased from 234,379 in 2000 to 519,887 in 2015. Camels increased from 67,956 in 2000 to 226,616 in 2015.

Where land pressures and land-use changes prevent livestock movement, this has led to the replacement of extensive grazing with zero-grazing systems, supplementation of grazing with cut-and-carry grasses, and the increased feeding of fodder and forage, including crop residues, plants, and *enset* (false banana). In some PAs, the fattening of livestock in enclosures now makes an important contribution to local livelihoods, influenced by improved markets and other infrastructure in the area. However, generally, most communities say that the fodder and forage are poor substitutes for grazing or grass. The feeding of concentrates to livestock is not practiced. In addition, a limited introduction of 'improved' dairy breeds has been seen over the last decade in those districts near Goba Town.

In general, water access for livestock and human consumption was not considered as a problem due to high and regular rainfall. However, though some community members mentioned that it takes longer now to transport livestock to water points due to routes blocked by crop farming, most communities have access to water all year round. In addition, the use of *hora* (mineral springs) and *haya* (mineral licks) is still common, providing important health-giving minerals for the livestock. Though some *haya* have been lost to agriculture since 2007, it would seem that the majority of both *haya* and *hora* are still in use. Where communities do not have access to these natural salt sources and/or where livestock do not move (i.e.,

in Nensebo District), nutrient-rich soil is purchased as a mineral supplement. Where veterinary services, including vaccination, are available, they appear to be well used by community members.

The government promotes individual landholding over communal landholding, which is reflected in the strong drive in the area to allocate and certify plots of farming land to individuals or households. Communal lands, including those remaining grazing areas that many livestock keepers depend upon, remain unregistered and uncertified. When livestock are moved to different areas for grazing during the wet and dry seasons, the land from which they have come is left temporarily 'vacant.' The local government argues that this land could be put to better use, and with no certified owner, the government may allocate that land to other users such as investors or landless youth. In some PAs, e.g., Ashuta in Goba, the government is encouraging the community to *pay* for grazing; and in Solana and Gerambamo, the leasing of grazing areas to other uses such as crop farming is a common occurrence.

The introduction of participatory rangeland management (PRM) in Berak PA by Farm Africa and SOS Sahel Ethiopia has to a degree legitimised local land use, including grazing, and contributed to greater resource and land tenure security. This follows the development of a management plan and regulating bylaws with a resource user agreement established between the local PA government and the designated cooperative(s). However, this increased formalisation, and control of access to grazing areas (traditionally used by many neighbouring communities in the wet season) is now leading to conflicts between livestock keepers in Berak PA and their neighbours. This situation highlights the need for a watershed- or landscape-level planning approach that considers land and resource use across the entire Bale Eco-Region (i.e., not only in a single PA) and the interconnections between these.

Forest encroachment from farming is an issue of significant importance for many communities and particularly those that use the forest areas for grazing. Although the Oromia Forest and Wildlife Enterprise (OFWE) state that they support *participatory* forest management, the complaints received from the community suggest otherwise and they argue that OFWE is restricting or preventing access to the forest. This seems to be a lost opportunity for a win-win situation where the OFWE would benefit from the community helping to manage the forest and the community benefiting from access to it.

However, the most important issue for majority of the communities around BMNP is the recent designation and demarcation of the boundaries, and statements made by the Park authorities that all grazing will be prevented. There was a high level of resentment among the local communities about this. They argued that they have always protected BMNP and wildlife, such as the Ethiopian Wolf, and are still willing to do so. The local communities feel marginalised from BMNP and from related decision-making processes. They believe that, if BMNP was to work with them, compromises and solutions could be found that will benefit all.

Key recommendations

To optimise land use in the Bale Eco-Region, investments in sustainable livestock production are required, including an improved livestock extension system and, where appropriate, its intensification. An assessment of the resource base across the Eco-Region should be undertaken together with a larger, more in-depth and quantitative as well as qualitative study of livestock numbers in the area. With such information, a landscape-level livestock 'carrying capacity' of the land and resources can be identified, and an agreement can be reached among stakeholders over land and resource use in the future. All evidence suggests that extensive livestock as a land-use system is more favourable to wildlife and the local environment than crop farming, and should thus be supported in areas bordering BMNP. For communities to remain or become 'custodians' of the land and to be supportive of BMNP, its wildlife and its resources, the Park should include communities in decision-making processes, and be prepared to compromise some of the 'protection' and 'exclusion' policies that they are currently promoting. This approach is indicated in BMNP's General Management Plan, but has not been implemented yet. Related to this, an important future development for the region would be land-use planning at different levels, including through PRM at the most local level. A key component of such land-use planning should be a consideration of different scenarios, e.g., with or without grazing in BMNP, and what investments might be required to enable communities to benefit from outcomes in these different scenarios.

About the SHARE Bale Eco-Region (BER) project

Conservation of Biodiversity and Ecosystem Functions and Improved Well-being of Highland and Lowland Communities within the Bale Eco-Region (BER) is one of the European Union (EU)-funded projects that stands for Supporting Horn of Africa Resilience (SHARE) initiative. In Ethiopia, the project covers 16 districts (*woredas*) in West Arsi and Bale zones of Oromia Regional State, around 22,000 km², with a population of about 3.3 million. The life span of the project is 42 months starting in July 2014 and ending in November 2017. Five partners are implementers of the project: Farm Africa; SOS Sahel Ethiopia; Frankfurt Zoological Society (FZS); International Water Management Institute (IWMI); and Population, Health and Environment (PHE) Ethiopia Consortium.



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