

## Comparing the Effects of Public and Private Rangeland Enclosures on Pastoralists in Somaliland

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# Policy Brief

No. 2 December 2024

## Comparing the Effects of Public and Private Rangeland Enclosures on Pastoralists in Somaliland

Pastoralism is a key pillar of the economy in Somaliland. It requires access to open rangeland in which to feed and move animals but is increasingly threatened by land enclosures and privatization of land. This policy brief explores and compares two cases of private and public land enclosures, highlighting the diverse effects of enclosures on socioecological systems and rangeland resources. Several aspects of private enclosures threaten pastoralists' livelihoods; an issue requiring urgent attention by stakeholders, including policymakers. In contrast, collaborative public forms of enclosure can work to the benefit of pastoralists.

### Methodology

This study employs a mixed research methodology that incorporates data triangulation, integrating a diverse range of primary, secondary, qualitative, and quantitative data sources. Methods include structured surveys on 210 households, policy document reviews, observations, and 14 in-depth interviews with ministries, agro-pastoralists, urban camel owners, and community leaders. In addition, satellite data from the Climate Engine database, Copernicus Data Space, and Google Earth Pro were used and analysed.

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#### Project

Pastoralist Climate Change Resilience in Somaliland (PACCS)  
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#### Project partners

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Roskilde University, Denmark  
Hargisa University, Somaliland  
SORADI, Somaliland  
University of Nairobi, Kenya  
Danish Institute for International Studies,  
Denmark

## Challenges to the Rangeland

Rangeland in Somaliland has traditionally been managed as common property under the customary law systems known as *Degaan* and *Xeer*, which guide the interactions and relationships within Somali clans, establishing rules around grazing rights, resource allocation, boundary delineation, water access, and conflict resolution. Given the limited reach and capacity of formal government institutions in rural areas, these laws fill a crucial governance gap, with clan-based agreements often having a greater influence on day-to-day resource management than formal laws. Despite this, enclosures have been on the rise since the 1990s.

This policy brief examines the impacts of enclosures on pastoralism in two sites: private enclosures in Balligubadle and a public enclosure in Aroori. Balligubadle in the western Hawd region relies heavily on livestock rearing and limited crop cultivation for income and sustenance. In turn, the public enclosure Aroori is located in the semi-arid Buro district of Togdheer, where the Somaliland government initiated public enclosures in 2016 to enhance pasture and livestock infrastructure, successfully enclosing 200 square kilometers by 2018. Aroori is managed using a community-based approach alongside state governance from the Ministry of Livestock.

Pastoralists in both areas have adapted to harsh environmental conditions, particularly variable rainfall patterns, by managing communal rangelands sustainably to support their livestock and the human life depended on it. The practice of privately enclosing land is motivated by – and seemingly provides a privatized ‘solution’ to – the strains of climate variability and draughts. Yet, our research shows that in the wider context of increasingly frequent droughts, shrinking rangelands, land degradation and limited regulatory mechanisms (state and customary) for ensuring inclusive land management, the practice has several negative unintended consequences.

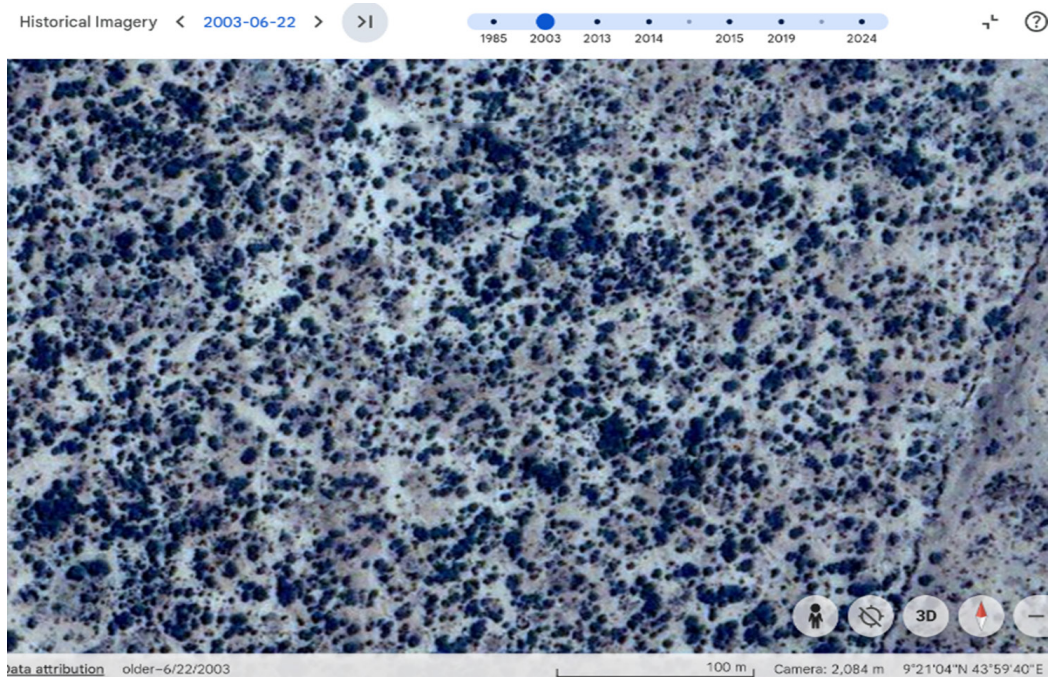
## Key Findings

- 1** This study shows that the practice of privately enclosing land has several unintended negative consequences: It has disrupted traditional grazing patterns, restricted access to communal rangeland, hindered pastoralist mobility, and exacerbated disputes and conflicts in the area. It has decreased livestock holding, leading to a decline in livestock products and household cash income, impacting the overall households well-being and undermining the resilience capacity of pastoralists. Finally, private enclosures have worsened deforestation of woodlands, shrublands, and bushlands, as well as an expansion of agricultural land over time in the area.
- 2** The current agricultural land policy does not address rangeland management, creating a policy gap that has enabled the expansion of private enclosures. Furthermore, our findings suggest that customary laws, such as *Degaan* and *Xeer*, have weakened and are no longer effective in regulating rangeland enclosures in Baliguballe.
- 3** Pastoralism is crucial for the livelihoods of large parts of the population and the overall economy of Somaliland; however, our research shows that it is not receiving adequate support. This lack of backing reflects a policy gap and the marginalization of this vital sector.
- 4** The Public Enclosure in Aroori demonstrate an alternative to the trend of private enclosures that threaten communal access and customary practices. Instead, Aroori showcases a structured framework for rangeland management, addressing the gap created by existing policies that overlook communal grazing areas.

## Findings from Private Enclosures in Balligubadle

In the study area of Baliguballe, households own both enclosed and unfenced land. Our finding indicates that one of the primary drivers of private enclosures in Baliguballe is drought, in combination with very limited support for adaptation, which has increased pastoralists' vulnerability by diminishing their livestock assets.

The transition of land cover from woodland to cultivated areas has occurred over time in most villages, reflecting changes in land cover to different land use types. Additionally, rangelands that were not enclosed twenty years ago have since been fenced, indicating a shift towards more privately controlled land use practices as illustrated in images from the Gumburuha village in the Baligubadle district (see picture).



Note: Images of the same area in Gumburuha Village in 2003 and in 2024, illustrating rangeland changes. (Source: Google Earth)

The enclosure of rangeland impacts pastoralist livelihoods by affecting feeding management. With reduced common grazing areas, pastoralists are pushed to keep their livestock on enclosed land year-round. This leads to a negative feedback loop, making it difficult to provide adequate feed throughout the year, both because of degradation of land (in the absence of restoration time) and because private enclosures diminish feed for wider pastoral communities. The enclosure restricts mobility, undermining pastoralists' capacity to maintain their traditional livelihood practices and adapt to changing environmental conditions.

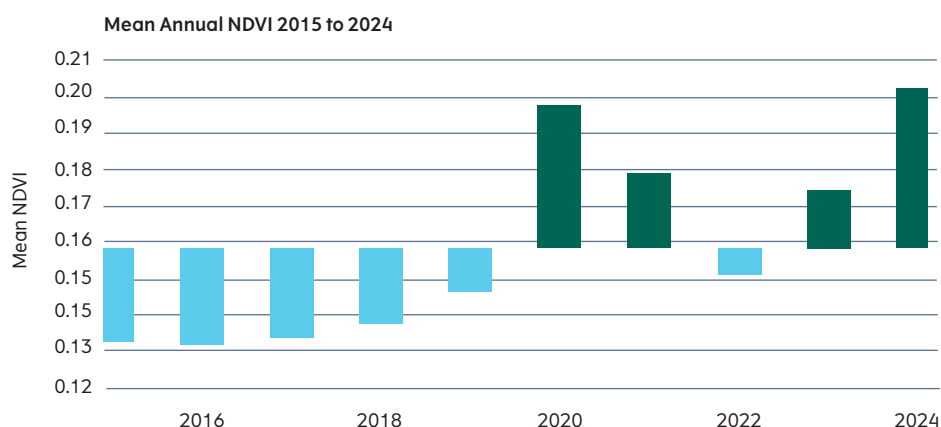
As a consequence, the decline in access to communal rangeland threatens the sustainability of livestock-based economies, leading to reduced livestock holdings, decreased milk production, and lower household incomes. While enclosed land allows individuals to exert control over their properties, it excludes others from accessing these resources, resulting in disputes among pastoralists. Private enclosure also alters land use patterns, shifting areas from grazing land to agricultural land. Over time, agricultural expansion in Baliguballe has come at the expense of native woodlands, shrublands, and other natural vegetation.

## Findings from the public Aroori Enclosure

Not all practices of enclosing land have been private. In fact, evidence from Aroori shows that collaborative public-community driven forms of enclosure can work to the benefit of pastoralists. The Aroori enclosure is managed through collaboration between the community and the government. While the process of ensuring community 'buy in' has been long and challenging, the community's engagement in managing public enclosed areas fosters a fairer distribution of rangeland resources and their associated benefits.

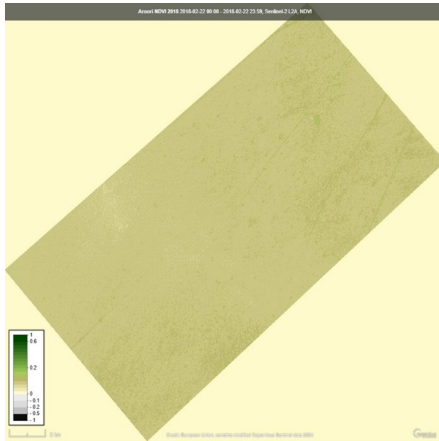
The public enclosure in Aroori promotes greater equality in the utilization of rangeland resources, regardless of household status, thereby mitigating the risks associated with concentrated land ownership that often arise from unregulated enclosure processes. This approach to land management enhances the resilience of pastoral livelihoods.

Contrary to the private enclosures, the public enclosure in Aroori also supports sustainable grazing practices: Since Aroori was enclosed in 2016 the amount of vegetation, as measured by the Normalized Difference Vegetation Index (NDVI), has increased between 2019 to 2024 (except for the year 2022).<sup>1</sup> In other words, the public enclosure has led to the restoration of previously deteriorated rangeland (see graph and image).

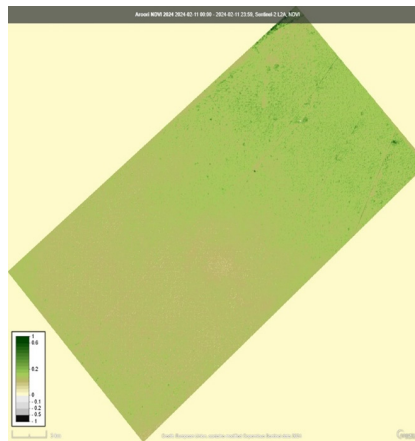


Note: NDVI refers to the Normalized Difference Vegetation Index, which measures the greenness, and the density of the vegetation captured in the satellite image. Healthy vegetation has a very characteristic spectral reflectance curve which can be measured by calculating the difference between two bands: visible red and near infrared. The value range of the NDVI is -1 to 1. Negative values of NDVI correspond to water. Values close to zero generally correspond to barren area of rock, sand or snow. Low, positive values represent shrub and grassland, while high value indicates temperate and tropical rainforest. (Sources: Own computation using data from Climate Engine 2024)

Aroori NDVI Feb 2018



Aroori NDVI Feb 2024



Note: NDVI refers to the Normalized Difference Vegetation Index, which measures the greenness and the density of the vegetation captured in the satellite image. Healthy vegetation has a very characteristic spectral reflectance curve which can be measured by calculating the difference between two bands: visible red and near infrared. The value range of the NDVI is -1 to 1. Negative values of NDVI correspond to water. Values close to zero generally correspond to barren area of rock, sand or snow. Low, positive values represent shrub and grassland, while high value indicates temperate and tropical rainforest.<sup>2</sup> The image is downloaded and presented in the original form from Copernicus Browser. (Sources: Own computation using data from Climate Engine 2024)

## Conclusions

Unregulated private enclosures are a significant problem, but do not receive enough attention from various stakeholders including policy makers. Customary institutions, such as *Degaan* and *Xeer*, along with existing agricultural land laws, are inadequate for protecting rangeland from enclosure and addressing the unique needs of pastoralists.

There are different ways of enclosing land, and it is important to be aware of the different related impacts. Private enclosures have had severe exclusionary and undermining effects for pastoralists and rangelands. The disruption of traditional grazing patterns due to private enclosures undermines the resilience of pastoral production systems and ultimately threatens the well-being of these communities. Private unregulated enclosures have fed into significant land use changes, transforming woodland and bushland into agricultural land over the past two decades.

The Aroori case study shows that, unlike the private enclosures, public enclosures created through collaboration between public authorities and local communities can yield significant benefits for pastoralists. The Aroori enclosure has improved vegetation cover, enhanced ecosystem services through rehabilitation of degraded rangeland, and ensured equitable access to rangeland resources for the community especially during bad times.

## Recommendations

- 1 Prioritize and enhance inclusive policies on rangeland management that protect the interests of pastoralists and the environment.
- 2 Establish frameworks and create incentives for local governments and community groups to negotiate agreements with owners of land to allow regulated communal access.
- 3 Build on the positive lessons learned from public-community led enclosures (with Aroori as a key case).

## Acknowledgements

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1) Due to severe draughts a large amount of livestock entered Aroori in 2022. This was not coordinated and therefore disrupted the scheme of rotational grazing for the area.  
2) [custom-scripts.sentinel-hub.com](https://custom-scripts.sentinel-hub.com)