



THE ECONOMICS OF
LAND DEGRADATION

Policy Brief

Policy options for mitigating impact of land degradation on livelihoods of pastoral and agropastoral communities in Somaliland

- Trends in land use and climate change have resulted in severe land degradation in rangelands in Somaliland over the past four decades, threatening the viability of the traditional pastoral and agropastoral livelihoods that form the backbone of household livelihoods and the economy. Land degradation has already led to a significant decline productivity of rainfed, rangelands and pasture, and woodlands because of more intensified and unregulated land uses and other processes arising from changing human activities and habitation patterns. Deforestation driven by large-scale commercial charcoal production fuelled by growing demand from rapid urbanisation has driven extensive tree cutting, whilst recent social changes toward more sedentary rural lifestyles has encouraged emergence of land enclosures for private uses. Private enclosure of pastureland historically used for open livestock grazing by nomads is increasingly pushing larger numbers of 'landless' households to the remaining shrinking communal rangelands, causing severe overgrazing and limiting natural vegetation recovery between seasons. Enclosures are also a source of intractable social conflicts.
- A recent case study examined the extent and impact of these undesirable changes on livelihoods of Somaliland communities. In consultation with local stakeholders, including relevant public institutions, researchers and communities two study sites were identified: Bookh (Gacan Libax highlands; a hilly grassland with sparse shrubs and no tree cover) and Baligubadle (a rangeland area with grass, shrub and tree cover). The study adopted the internationally-recognised environmental valuation (ELD 6+1 step) approach based on cost-benefit analysis (CBA), incorporating relevant data on household production and consumption.
- Comparison of Business as Usual (BAU) to different interventions provided illuminating results. In the absence of action, significant economic losses will continue, in the form lower availability and quality of pasture and therefore lower livestock production, poorer crop productivity, and declines in firewood availability. Without intervention, under a Business-As-Usual (BAU) scenario, the economic benefits of the Baligubadle rangeland would likely be approx. USD 37 million over a 43-year time horizon (to 2063), as measured in 2020 prices. This amounts to an income of just USD 258 per household per each year or just USD 0.12 per person per day, assuming households comprise six people.





- A land tenure law designating land use and mandating registration of the existing land enclosures under the three historical uses (of agricultural, pastureland and forestry) will likely slowdown or halt the land degradation. Mandatory registration yields economic benefits of USD 182 million, or roughly USD 1,283 per household per year, amounting to an 80% increase in daily per capita income compared to the corresponding BAU scenario. The high rate of improvement reflects both the potential protective effect of registration, leading to activities supporting regeneration of land cover, greater access to pasture and improved productivity.
- A similar picture emerges from the Bookh site. Under BAU, the economic benefits of Bookh rangeland will amount to total of USD 64 million or USD 541 over the 47 years to 2063. With policy measures enhancing existing community-led land management models and greater enforcement capacity by relevant authorities, NPV improves by 60% to USD 102 million under a management model that combines vegetation restoration measures, soil bunds to reduce erosion and regulated access to manage livestock density. Per household annual NPV increased from USD 541 USD to 868 USD, corresponding to USD 0.25 and 0.40 per person per day respectively. Enforcement of the regime to maintain these benefits is nevertheless uncertain.
- To conserve rangeland and enhance livelihoods, land tenure law is needed, alongside implementation of subsidiary regulation to create administrative and enforcement capacity to execute the law. Such efforts include registration of land enclosures and rangeland management measures. All key stakeholders including relevant line ministries, agencies, research community, civic society, rural communities should be involved in this process to ensure legitimacy and mobilise the necessary support for future policy interventions. Financial and technical resources need also be invested to support sound policymaking and enforcement, as well as the gathering of further evidence through more comprehensive research in the future to strengthen evidence.

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