

**INVENTORY, MANAGEMENT AND REHABILITATION OF  
KEY PASTORAL AND AGRO-PASTORAL RESOURCES  
IN BARINGO COUNTY, KENYA**

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## ABSTRACT

The loss of key resources/areas in Baringo County, Kenya, essential for the ecological functioning of the pastoral and agro-pastoral systems, has affected livelihoods of the communities leading to hunger and poverty. The study was aimed at identifying, mapping the spatial extent, quantifying production, determining condition, degree of resource degradation, assessing the management of the key resources and suggesting possible ways of rehabilitating the degraded ones. The study area (934,026 ha) was divided into three strata corresponding to the Il Chamus, Tugen and the Pokot ethnic community grazing areas. Ecological data was collected from field sites and remotely sensed data using site assessment and geographical information system (GIS) techniques. Social data was collected using Key Informant Interviews, Focus Group Discussions, and a sample survey. The identified key resources/areas were mapped using a GIS platform, they included: water sources, elevated grazing sites, riverine areas, swamps, irrigated and valley bottoms. An index of rangeland health was developed and used to assess the condition and the rehabilitation needs of the resources. A total of 804,000 ha were in different levels of deterioration, with 68 % needing rehabilitation, while 30 % were in fair condition and only 2% in good condition. Factors affecting the key resources/areas included managerial factors (non-functional institutions, increased animal numbers, and reduced animal mobility). Socio-economic characteristics (age, gender, household numbers, formal education, technical training, livelihood diversification, and change in land use) of the three communities were positively associated with resource degradation. It is recommended that the ecological resources be rehabilitated through: exclusion from use, provision of seed stock to the soil and by controlling the number of grazing animals and season of use. The study is significant as it covers a large area and provides information on the condition of the resources and specifically identifies areas that need rehabilitation, information that is useful in resource restoration planning.

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