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## Sustainable Agricultural Livelihood Restoration, Rehabilitation and Resilience in Kenya

### Guidelines on Sustainable Ruminant Feeds and Nutrition Security for Kenya

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#### CHAPTER 3 KEY PILLARS AND ISSUES ON RUMINANT FEED AND NUTRITION SECURITY

##### 3.1.1 Strategic Issue 1. Low feed production

The following are among the major factors contributing to low feed production.

- i. Limited accessibility of inputs, including clean and certified seeds, fertilisers/manure to improve soil fertility, and appropriate research Technologies, Innovations and Management Practices (TIMPs), pasture and fodder species, farm implements, tools and mechanised farming leads to production of low yields that are also not nutritious feeds. This in turn limits ruminant production and productivity.
- ii. Diseases, desert locusts, drought and lack of early maturing crop varieties
- iii. Limited efforts in the restoration of rangelands and Climate change have led to excessive expansion of invasive and parasitic plant species such as *Prosopis juliflora* (Mathenge), *Ipomea pandurata* (Indian Potato/Wild potato vine), *Lantana camara* (Lantana) Cactus and *Cuscuta japonica* (Japanese dodder) causing severe damage to pasture lands and grazing areas further reducing the availability and quality of feed for livestock.
- iv. High incidences of diseases and pests, such as rusts, maize lethal necrosis, head smut, locusts, and fall armyworm, negatively impact forage quality, productivity, and the production economy
- v. Non-pathogenic conditions, including air pollution, nutrient deficiencies, water stress, extreme temperatures, and mineral toxicities, also significantly impact fodder yields and quality.
- vi. The occurrence of conflicts and insecurity in feed producing areas disrupts production activities and limits the availability of feeds to ruminants
- vii. The breakdown of community governance structures over land tenure systems and utilisation leads to overgrazing, thus causing land degradation and loss of fertile soil for feed production.
- viii. Land fragmentation into uneconomical units especially in the high potential areas/non-ASAL
- ix. Adverse effects of climate change and environmental shocks such as droughts, floods, and wildfires on fragile ecosystems limit feed production.
- x. Over-reliance on rain-fed forage production and high dependence on natural pastures with low biomass yield particularly during dry seasons
- xi. Poor and inadequate feed planning and budgeting lead to insufficient inputs and feed shortages