

University of Hohenheim

Institute of Agricultural Science in the Tropics (Hans-Ruthenberg-Institute)
Department of Social and Institutional Changes in Agricultural Development (490c)

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Master Thesis

**Examining Development Pathways and Tradeoffs of Pastoral Livestock
Systems in Kenya**

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Submitted by

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Abstract

In the face of the current pandemic and ongoing climate crisis, it is more important than ever to focus on food security and sustainability. According to recent statistics, over 23% of Kenya's population, or approximately 12.1 million people, suffer from malnutrition (FAO, 2018). With added complications and multi-level supply chain disruptions brought on by COVID-19, these numbers are expected to rise (Laganda, 2021). As Africa's "Livestock Revolution" unfolds at an extraordinary rate, the main goal of this study is to explore the specific pathways by which farmers in Kenya's livestock systems are transitioning toward differentiated practices to meet the rising demand for animal products. While these transitions can have substantial positive impacts on poverty and malnutrition levels, they are not without costs. Therefore, extensive research was devoted to identifying subsequent socio-economic and environmental trade-offs and to determining the extent to which such negative trade-offs are addressed by current agricultural policies. Research was conducted using innovative mixed methods approaches including qualitative focus group discussions and interviews with experts, key informants, and livestock keepers. Additional data was gathered by in-person assessments of livestock management practices at the farm level. Research findings showed that climate shifts and ongoing drought conditions along with rising demand for animal products have been catalysts for changes in livestock management practices. To cope with decreased water and grazing resources, pastoralists have turned to diversification and the adoption of improved livestock breeds to boost productivity within a limited amount of space. Major tradeoffs included land degradation, jeopardization of human and animal health, genetic resource loss, and the loss of culture and traditions. As far as mitigation strategies, a fair amount of disconnect was observed between the policy and ground levels in many cases. Results and insights provided by this project will be disseminated to policy makers to inform the design of policies that will help promote the nutritional and socio-economic benefits of livestock development while mitigating negative impacts of associated trade-offs.