



Eco-Friendly Practices in Livestock Husbandry: Reducing Carbon Footprints and Enhancing Income Among Smallholder Farmers in Congo's Maize Belt,

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Abstract

Livestock husbandry plays a crucial role in the agricultural economy of the Democratic Republic of Congo (DRC), particularly within the maize belt region. Smallholder farmers, who constitute a significant portion of the rural population, often employ traditional practices that contribute to environmental degradation and economic instability. A mixed-methods approach was employed, combining a survey of 150 randomly selected smallholder farmers with qualitative interviews of 20 key informants. Data were collected through structured questionnaires and semi-structured interviews, focusing on carbon footprint measurement and income analysis over two years. The findings indicate that integrating rotational grazing systems reduced the carbon footprint by an average of 15% among participating farmers, while increasing herd productivity led to a 20% rise in annual incomes. These practices are particularly effective for small-scale operations. This study underscores the potential of eco-friendly livestock husbandry as a viable strategy for reducing environmental impact and improving economic outcomes for DRC's maize belt smallholder farmers. Policy makers should encourage adoption of these practices through targeted interventions, such as providing financial support for infrastructure improvements like fencing and water sources. Agricultural extension services are also recommended to disseminate knowledge effectively. Eco-friendly livestock husbandry, carbon footprint reduction, income enhancement, smallholder farmers, Democratic Republic of Congo

Keywords: *Geography, Africa, Maize, Belt, Livestock, Husbandry, Eco-Friendly, Carbon, Reduction, Smallholder, Farming, Income, Earnings, Policy, Development, Investment, Agroecology, Community,*

Participation, Indicators, Monitoring, Assessment, Climate, Resilience, Adaptation, Integration, Innovation, Technology, Education, Transfer

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