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Factors Affecting the Adoption of Forage Technologies under Smallholder Dairy Production Systems in Tanzania

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Abstract

For over fifty years, researchers have tested and introduced forage technologies aiming at improving cattle's productivity in sub-Saharan Africa (SSA). In spite the potential positive impact of improved forage varieties (IFV) on milk yields, its adoption by smallholder livestock farmers in SSA has remained unsatisfactory. Our study aimed at identifying opportunities and constraints for the adoption of IFVs in smallholder dairy production systems in SSA with a special focus on Lushoto, Tanzania. It is based on a literature review, a range of empirical social research methods alongside the application of a Qualitative Assessment Tool for Forage Technology (QATo-FT) in a multi-stakeholder learning workshop.

The most important findings for a limited adoption of IFV centred on the lack of knowledge on the stabilising effect of forage production on milk yields, the low value of labour in the dry season resulting in farmers engaging in labour intensive, long-distance cut-and-carry feeding, as well as limited access to existing dairy markets creating a bottleneck between producers and consumers.

In order to offset these challenges, the following recommendations for a wide scale adoption and up scaling of IFVs were derived: 1) Knowledge transfer on the benefits of IFVs, their proper management (establishing, maintenance, timing of harvesting), conservation and optimal utilisation in livestock is needed, using participatory approaches and mass media. 2) Local and regional administration can help to strengthen partnerships between involved stakeholders such as farmers, NGOs, service providers, extension officers and other networks beyond the existing village innovation platforms. 3) Increasing the value of labour through off-farm income possibilities will make IFV a necessary, labour-saving activity. 4) Creating better access to existing markets (e.g. through establishing better connections to local collection centres) would generate an incentive for planting IFV, supporting a higher milk production.

The aforementioned actions hold the key to motivate small-scale dairy farmers' uptake of productive farm actions such as improved forage technologies. As a result, the performance of existing heads of cattle would improve, milk yields would increase and farmers' income levels could be enhanced, helping to reduce poverty in the region.

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