Maziwa Zaidi (More Milk) in Tanzania

Increased Napier cultivation in Lushoto could increase milk production 103%

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Key messages

• Farmers in Lushoto underfeed their cattle, leading to low productivity
• Farmers are interested in cultivating Napier around the homestead to make forages easily accessible year-round
• Such a scenario could increase milk production by 103% and household income by 88%
• Fetching livestock feed currently consumes more than 30% of on-farm work
• However there is a risk of nutrient mining if Napier is not fertilized – a higher risk due to lower food self-sufficiency

Objectives and approach

• Inadequate quality and quantity of feed causes low livestock productivity. Improved forage technologies have been promoted in Tanzania for sustainable intensification
• However, we have insufficient information on impacts on household economics as well as the environment
• Methods included household surveys, milk and meat measurements, focus group discussions, bio-economic household modeling

Key results I

• Farmers fed on average only half of recommended feed quantities, and only one farmer provided drinking water. The diversity of feeds was high, pointing to opportunistic feeding (see figure 1)
• 31% of on-farm work used for livestock feeding, especially for fetching natural grasses
• Total average annual household income was only 618$
• Farmers were most interested in increasing Napier cultivation around the homestead to provide year-round, easily available fodder

Key results II

Increased Napier cultivation around the homestead could:
• Decrease labor demand by 3% – however low opportunity costs of labor will not favor adoption
• Increase milk production by 103%
• Increase gross total household income by 88%
• Aggravate nutrient mining if Napier is not fertilized;
• Decrease initial income due to long establishment period of forages in Lushoto
• Lead to higher risks due to lower food self-sufficiency

Opportunities to invest and scale

• Wide-scale training of extension officers for daily follow-up with farmers
• Administrative support to buffer risks for farmers in the transition period to forages
• Increase credit availability

Figure 1: Different feeds (kg fresh weight) given to one cattle equivalent per farm per day

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