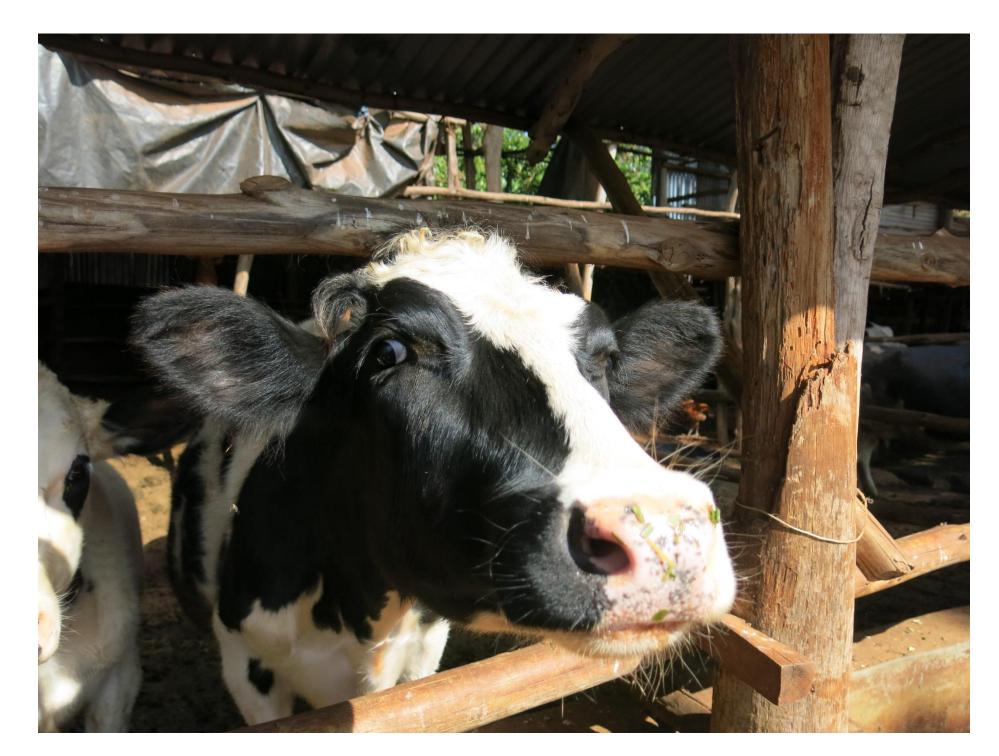
Maziwa Zaidi (More Milk) in Tanzania Towards climate-smart dairy development

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Key messages

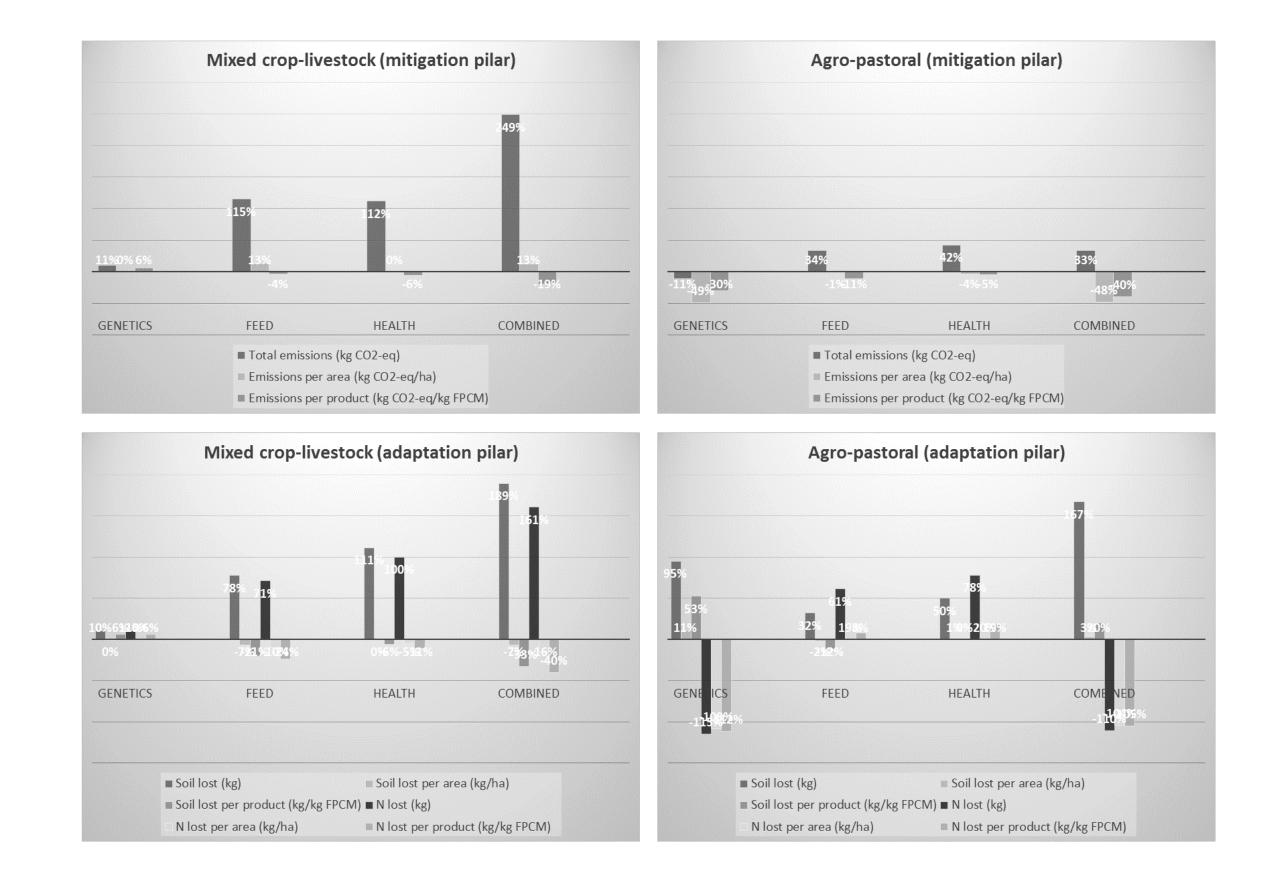
- Dairy development can improve the welfare of producers and their market agents
- BUT it also has the potential to harm the environment
- It is thus important to estimate such environmental impact before investing
- Productivity-increasing interventions (such as improved breeds, improved animal health, improved markets, improved feeding) increase the overall use of natural resources – despite more efficient use of resources
- This points to the need for appropriate manure and soil fertility management

Objectives and approach

- Livestock production is a key driver of global environmental change.
- Before embarking on large-scale development projects targeting intensification of livestock production and value chain transformation, it is important to assess potential environmental impacts.
- We developed a framework for ex-ante assessments of environmental impacts of development interventions, to assess the potential environmental impacts of four intervention scenarios: (i) introduction of improved breeds, (ii) reduced seasonality of feed availability (iii) improved animal health, (iv) these three technology interventions packaged together.
- We described their impact on productivity, GHG mitigation potential, erosion rates and nutrient balances in (i) extensive agro-pastoral and (ii) more intensive crop-livestock systems in Tanga.

Key results

- Due to current low productivity in agro-pastoral systems, productivity and production as well as resource use efficiency are likely to increase.
- Productivity-enhancing interventions can result in mitigation co-benefits across the different systems.
- Most interventions are likely to increase nutrient (N) losses in mixed systems.



Opportunities for inclusive investment and scaling

- This study demonstrates that rapid assessments of alternative intervention scenarios can provide useful information supporting climate-smart livestock development.
- Efforts to increase the uptake of appropriate manure and soil fertility management will be needed to ensure sustainable development of the dairy sector.



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