

Enabling locally relevant planning for sustainable livestock sector development: the CLEANED approach

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Key messages

- Agricultural development, including livestock, is crucial for national economic growth and to guarantee nutritional security.
- The CLEANED approach, using the CLEANED R tool, explores alternative ways to increase productivity and well-being while minimizing the amount and distribution of negative environmental and well-being impacts across the chain. As such, this contributes to sustainable water and land use management.
- The approach allows local government and value chain actors to translate national policies such as the Agricultural Sector Development Programme Phase II into plans for implementation that are locally relevant and agreed on by all actors.
- In high potential areas, the approach can be used to refine strategies of livestock improvement, while in agro-pastoral areas the approach can contribute to conflict resolution over land use for livestock production.



What is the CLEANED approach?

The Comprehensive Livestock Environmental Assessment for improved Nutrition, a secured Environment and sustainable Development (CLEANED) approach is a computer-assisted participatory learning process that aims to understand the opportunities and constraints for sustainable livestock production in a local context. By combining the CLEANED tool with a Transformation Game, local stakeholders can explore productivity, environmental, equity and well-being in different livestock futures. It identifies trade-offs and synergies between productivity, environmental and well-being impacts associated with different livestock value chain options. This helps to design a locally supported, shared vision of an ambitious, realistic livestock sector.

The CLEANED approach seeks to strike a balance between being implementable within a short time and being sensitive to a specific context. It does this by combining existing data with local and expert knowledge. The aim is to capture locally relevant livestock value chain dynamics so as to produce meaningful information for decision making.

The CLEANED approach involves four steps:

Steps 1 and 2 are a reconnaissance tour by a facilitation team with stakeholder interviews and a participatory stakeholder workshop aimed at understanding the context well with local expert knowledge.

Step 3 is the set-up of the CLEANED R tool, a computer simulation that computes water, greenhouse gas,

biodiversity and soil nitrogen impact for the specific context by combining expert knowledge and geographical data.

Step 4 is a second workshop in which stakeholder groups play a board game that facilitates development and evaluation of possible livestock futures.

Why do we need the CLEANED approach?

The Agricultural Sector Development Programme Phase II (ASDP-II) emphasises that agricultural development is crucial for national economic growth and nutritional security. It calls for enhanced agricultural productivity with sustainable water and land use management, in other words sustainable intensification. The livestock sector is critical as it provides: (1) important nutrients for a diverse diet, (2) high value food and non-food products, (3) risk mitigation for smallholder farmers and (4) manure for soil health. However, livestock keeping is resource intensive and can cause environmental damage if poorly managed. A three-country project (ResLeSS) has shown how, by using the CLEANED approach, local governments and value chain actors can explore alternative ways to increase livestock productivity, to produce more animal sourced food while maintaining or even reducing the pressure on their local environment.

Lessons from high potential highland Lushoto

The CLEANED approach was used in Lushoto district to explore different scenarios for improving livestock breeds for dairy production, namely local breeds (kienyeji), cross-breeds (chotara), and mostly exotic

breeds (kisasa). The scenario for 2030 agreed by the stakeholder groups showed that an increase of 160% of milk production is possible without increasing the existing animal density, but the trade-off would be 50% reduction of staple food production. Participants felt that they had no competitive advantage in staple food production and already need to purchase food. Getting more income from milk will improve producers food security as well as fulfil their other objectives.

Improved breeds require more management in terms of housing, veterinary services and high value feed. High value feed means more planted fodder, which competes with food production and more concentrates such as brans or oil seed cakes which need to be purchased. The stakeholders agreed that a move to improved breeds therefore means competition for limited

financial resources, such that emergencies may even require families to sell land to maintain good livestock management.

In addition, the move to purchased concentrates, that do not require local land, will reduce the overall pressure on land and the environment. Greenhouse gas emissions and water needed per unit of milk will be reduced compared to the current situation.

Farmer participants learned to look beyond their own farm and assess benefits of moving to more intensive production together. This is because their joint increased demand for veterinary services and livestock-related inputs will increase the provision and quality of these services as costs of providing them will reduce.

How the CLEANED approach can help implement Livestock Policy and Plans

Tanzania's livestock master plan is ambitious in terms of animal sourced food production, especially in the high potential areas. Yet it does not take the local resource base or the environment into account. Neither does it suggest how to mobilize actors on the ground.

The CLEANED approach can be used to:

“Down-scale” the Livestock Master Plan to the local context, to develop a shared vision among the different actors of how they can contribute to national development.

Develop a locally relevant road map to a realistic implementation of the national master plan, in collaboration with local and international businesses and knowledge partners. For sustainable implementation, the CLEANED approach should be a complement to capacity building of local institutions and communities.

Recommended way forward:

The Government of Tanzania to pilot the CLEANED approach in other districts to assess results in different settings. The focus in high potential areas can lie in improving dairy value chains through management and breeding, making use of a parametrisation of the CLEANED R tool similar to Lushoto. For drylands, the focus can be on tackling the conflict between farmers and pastoralists, making use of a version of the CLEANED R tool for agro-pastoral areas similar to that developed in Burkina Faso, but adaptable to the Tanzanian context.

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