



Sustainable Rangeland Restoration

Building inclusive knowledge sharing hubs (Livestock Cafés) for resilient pastoral livelihoods and rangeland restoration in East African drylands



Background

Include2Restore builds directly on efforts to co-develop climate-smart solutions for (agro) pastoralists in the Karamoja border region, East African drylands. Given the complex and conflict-ridden history of the region, the project aims to contribute social science perspectives to ongoing restoration efforts, enabling rangeland restoration to move beyond biophysical sustainability to also become socially and economically sustainable.

The East African drylands face unique climatic and social vulnerabilities, with a history of persistent and violent conflicts over resources. People in the Karamoja border region of Kenya and Uganda face complex overlapping challenges, including land degradation, increased impacts of climate change (e.g., drought, flooding), food insecurity, animal diseases, gender inequalities, and violent conflict both within and across national borders. These challenges not only mark the border region as a climate and land degradation hotspot, but also as a conflict and social inequality hotspot where the population faces multiple interconnected vulnerabilities.

PROJECT OBJECTIVES

To overcome these challenges, Include2Restore targets four main objectives:



Co-identify rangeland management and restoration practices that will **safeguard inclusive and equitable restoration and peacebuilding** long-term on household and community levels



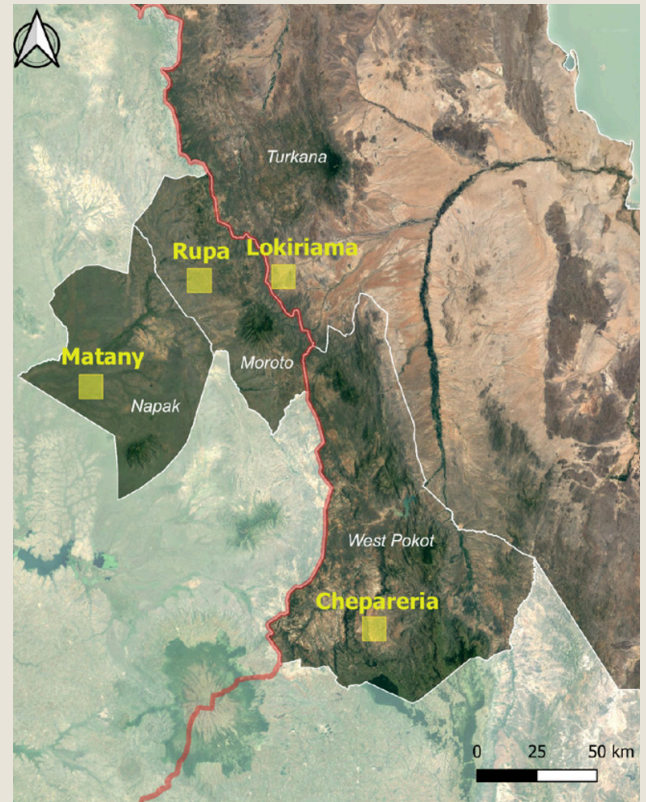
Co-identify ways to realize new **financial returns from rangeland restoration** that will safeguard and promote inclusive restoration outcomes long-term



Support and strengthen identified **practices** within local management structures by integrating them into Next Generation Livestock Cafés



Jointly test the potential of **inclusive rangeland restoration and sustainable management to build peace through scaling identified best practices** and initiate discussion of systems changes needed at higher scales



Above: The project operates in four landscapes across the Karamoja border region. Two of these landscapes (Chepareria in West Pokot County in Kenya and Matany, Napak District in Uganda) are semi-arid and inhabited by agro-pastoralist communities, and two of these landscapes (Lokiriama in Turkana County in Kenya and Rupa, Moroto District in Uganda) are arid and inhabited by pastoralists.

PROJECT OUTCOMES

Through close collaboration with local communities, the project outcomes will be **co-created approaches to rangeland restoration that are ecologically, economically, and socially sustainable**. The project will simultaneously address both adaptation to climate change and enhanced livestock productivity, as well as climate mitigation through increased carbon uptake of restored rangelands.

Theory of Change

When **rangelands are restored**, multi-functional trees planted and grazing areas flourish with pasture, droughts and floods and other extreme climatic events have less severe impacts, and water, feed, food and nutrition security, livestock and human health are improved.

An **equitable and inclusive approach** ensures access to benefits from restoration to all.

Regenerative kitchen gardening for improved food and nutrition security and dietary diversity in the households.

Fodder business development will **enhance livestock productivity** and increase the **sustainable involvement** of women and youth. Better livelihood opportunities and less severe shocks from extreme climatic events will lead to **fewer conflicts**.

Inclusive restoration will result in improved gender and social inclusion. Peace-building efforts in the Livestock Cafés will lead to greater security, less conflicts and improved livelihoods and well-being for all groups.



Methodology

The project Restore4More has pursued ecological sustainability through rangeland restoration in the four engagement landscapes, but change has been slow. **Include2Restore will build on Restore4More to innovate next generation Livestock Cafés with strong social and economic components.** We believe that this contributes a key missing piece to the puzzle and will encourage a faster pace of change, eventually achieving sustainability socially, economically, and biophysically.

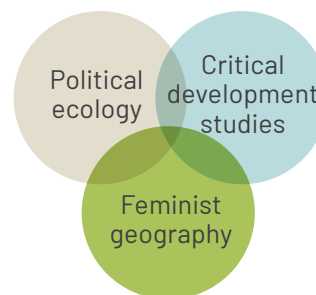
PROJECT ORGANISATION

In Include2Restore, we will combine social science and biophysical perspectives organized into three interrelated work packages (WPs) to:

- ▶ investigate how management practices can contribute to **socially inclusive rangeland restoration** (WP1),
- ▶ explore potential **income-generating opportunities** coupled with the restoration practices (WP2), and
- ▶ explore how to build **peace, security and social stability** through gender-transformative approaches (WP3).

CO-CREATING WITH LOCAL COMMUNITIES

Include2Restore will employ a methodology that investigates the interplay of ecological, economic, and social-relational factors within and between communities. The project draws and combines three theoretical perspectives:



Building socio-ecological and community resilience requires governance mechanisms that are co-designed with local communities. Therefore, this research will be developed and conducted in close collaboration and co-creation with local communities, elevating local needs, knowledge and perspectives in all stages of the research process. This requires a flexible and varied toolbox of methods, including interviews, group discussions, observations and co-creative methods.

WHAT ARE LIVESTOCK CAFÉS?

Livestock Cafés are knowledge-sharing hubs with experimental plots and demonstrations of innovative rangeland restoration through water harvesting and management practices, revegetation, grazing management and regenerative kitchen gardening, all that sustainably ensure sufficient pasture and fodder, and food and nutrition security for the household and community. They aim to increase sustainability and resilience of not only the rangelands but also of the livestock and the people who depend on them.

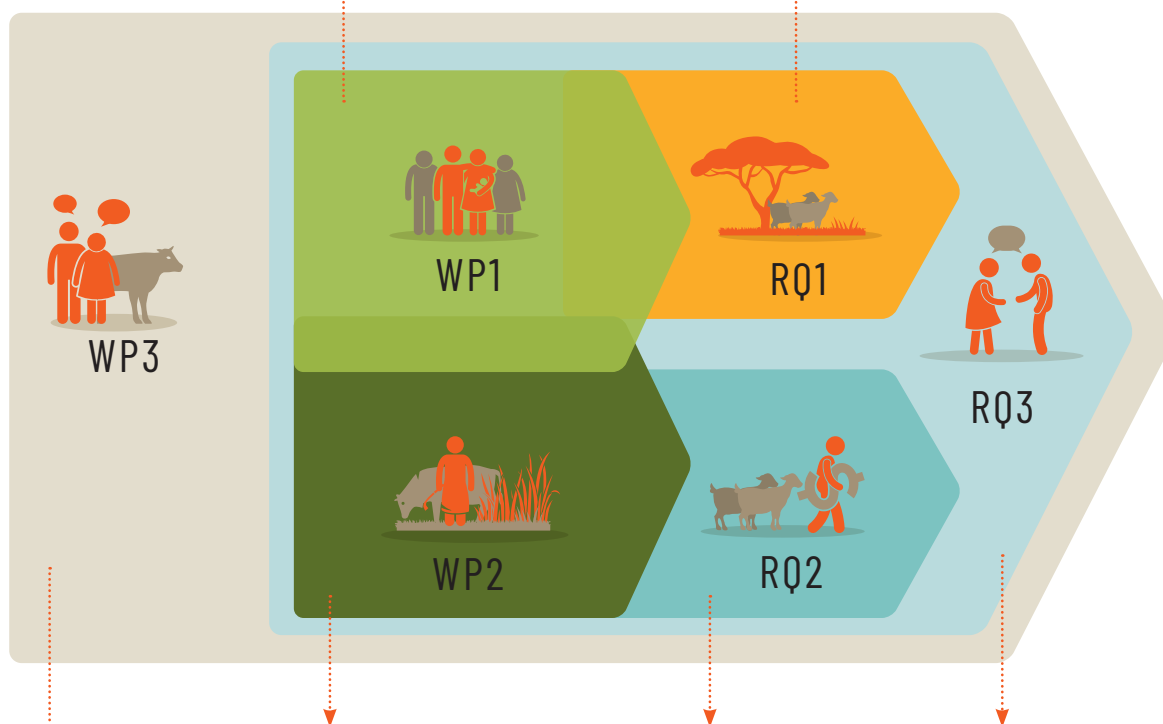
Include2Restore will design and pilot improved, next-generation, Livestock Cafés that function as platforms where women, men, youth, and elders can share and co-create knowledge alongside researchers, extension workers, and NGOs to advance sustainable, inclusive and climate-smart rangeland restoration for resilient livestock-dependent livelihoods in the region.



INVESTIGATING THE SUSTAINABILITY OF RANGELAND RESTORATION

WP1: Socially sustainable and inclusive rangeland restoration
WP1 will focus on ensuring that rangeland restoration practices piloted within the Livestock Cafés are socially inclusive.

Research Question 1:
How is local land and grazing management organized in terms of gender and inclusion perspectives? What management practices are needed to safeguard restoration outcomes long-term?



WP2: Economically sustainable rangeland restoration
WP2 will focus on making rangeland restoration economically sustainable and the potential for pastoralists to realize financial returns from restoration.

Research Question 2:
Can financial returns be realized by pastoralists engaged in restoration? Could innovative livestock and fodder value-chains, fodder refinement and commercialization be an alternative? Is carbon market integration an option?

Research Question 3:
Is it possible to build peace, security and social stability through gender-transformative collaboration around the above questions concerning sustainable rangeland restoration and management?

➔ **WP3: Livestock Café potential for systems change**

The insights gained from the two first WPs and research questions will be integrated into the work at the Livestock Cafés. The goal is to expand this initiative and achieve systems change at scale.

UNDERSTANDING THE PROJECT'S 3 WORK PACKAGES



WP1: Socially sustainable and inclusive rangeland restoration

WP1 will focus on the social sustainability of the rangeland restoration practices piloted within the Livestock Cafés. In this WP we apply critical social sciences perspectives and methodologies to fill current gaps in knowledge surrounding the social sustainability of the Livestock Cafés and pilot strategies for securing social inclusion long-term.

- ▶ The project will work with Livestock Café participants to identify and investigate structural barriers to achieving social sustainability at a community level (e.g., conflicts around or governance of natural resources, gender relations and social norms related to rangeland restoration).
- ▶ The project will test gender-transformative approaches with interested households, and with Livestock Café participants to identify barriers to achieving social sustainability experienced in households and families (e.g., gender gaps, reproduction of or resistance to cultural norms, negotiation of roles and responsibilities, and control over resources).



WP3: Livestock Café potential for systems change

The insights gained from the two first WPs and the reflections around the research questions will be integrated into the work at the Livestock Cafés. These recommendations will add to already-existing practices, or lead to the implementation of new ones. These Next Generation Livestock Cafés will provide a platform where various social segments of the involved pastoral and agro-pastoral communities can share and co-create knowledge alongside researchers, extension workers, and NGOs to advance sustainable, climate-smart, rangeland restoration.

The communities adjacent to the LCs are already slowly copying the new techniques, with the help of community members trained by Drylands Transform. However, this is a slow process and the insights from WP1 about social factors that may need to be accommodated to catalyze increased adoption, and the work in WP2 identifying economic opportunities for individuals and communities from rangeland restoration, will be crucial to spur greater success and sustainability.



WP2: Economically sustainable rangeland restoration

WP2 will focus on making rangeland restoration economically sustainable and the potential for pastoralists to realize financial returns from restoration. This will include:

- ▶ **Fodder business development.**
To attract the interest of pastoralists, and scale restoration from the Cafés, we will develop a business case for the fodder value chain and determine the potential financial returns for pastoralists engaged in restoration (e.g., fodder refinement and commercialization). Presently, Kenya faces a shortage of 70% of the fodder demand each year. This is a huge economic opportunity with four-fold benefits: restoration, pastoral livelihoods, social inclusion, and carbon sequestration. There is also potential to replace unsustainable and hazardous practices (e.g., charcoal burning, gold mining) as income sources for women, while also increasing food security and reducing biodiversity loss.
- ▶ **Animal nutrition development.**
Beef production in the Karamoja Cluster depends on grazing pastures, predominantly native grasses. Poor grazing conditions slow the rate at which beef cattle attain market weight (280–350kg), resulting into less tender meat and attracting poor prices for the pastoralists. Improving dryland pastures with forage legumes and manure provides opportunities to produce cattle with significantly higher growth rates.
- ▶ **Carbon market development.**
The project will investigate the possibility of connecting restorative rangeland practices to the carbon market to generate income for (agro)pastoral communities engaged in restoration.



Scaling and adoption plan

Successful scaling needs to include adaptation to different community-specific realities and challenges. Include2Restore will therefore arrive at detailed recommendations for community-level inclusive restoration practices, gender and social inclusion-focused household planning tools adapted for the pastoral context, and concrete ideas for income generation connected to rangeland restoration and improved livestock production systems. These suggestions will be flexible so that they are adaptable to specific contexts and focused on supporting marginalised groups.

1 The end-phase of the three-year project includes **workshops in the Livestock Cafés with relevant stakeholders** (including activities targeted at women and youth) that address the evidence-based recommendations of the project. Through comprehensive, participatory discussions with communities, we will validate the practicality and transformational potential of our proposed solutions, allowing for otherwise marginalised voices to truly influence the recommended solutions.



2 After local-level workshops have resulted in improved suggestions, these will be raised at a **sub-national and cross-border level workshop** to which Ugandan and Kenyan arid and semi-arid districts and counties, and regional policymakers and stakeholders will be invited.



3 To support these workshops, we will produce a **robust list of feasible, evidence-based recommendations for achieving sustainable systems change at scale**, also potentially scalable beyond the Karamoja border region.



Project activities

- **Inception:** Initial visit to the four sites, pilot studies and baseline assessment undertaken on-site
- **Research questions confirmed** and detailed research plan jointly developed
- **Website developed;** social media accounts created; information briefs produced and shared
- **Social science data collection**
- **Livestock Café (LC) activities/trainings**
- **Investigation into carbon market** experiences in Kenya and Tanzania

- **Preliminary results and progress sharing:** First research results feedback to the communities and stakeholders in the LCs
- **Quantitative and qualitative data collection** by project Postdocs, PhD and Masters researchers
- Potential for **carbon market integration explored** at LC sites
- Potential for **commercial fodder production, and livestock fattening for local markets explored** at LC sites
- **Capacity building:** Community, stakeholders and project team members discuss and present their work



- **Project workshop in Sweden** where key project participants discuss results and synthesize suggestions
- **Validation, dissemination and co-creation at local level:** Research results shared with communities and stakeholders at local workshops; feedback and suggestions obtained
- **Co-creation and dissemination at regional level:** Research results and suggestions for structural changes discussed at larger regional level workshop with cross-border participation from both countries

- **Final recommendations** synthesized from all workshops and discussions
- **Recommendations** for future steps charted, aimed at achieving systems change at scale
- **Research articles submitted;** PhD and MSc theses finalized.



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