Land Degradation Neutrality

Land degradation is the decline in the quality and productivity of land due to natural or human induced processes. It results in the reduction of the land capacity to provide ecosystem services such as food production, water filtration, biodiversity support and climate regulation.

Land Degradation Neutrality (LDN) refers to a state where the amount and quality of land resources remain stable or improve over time.

It focuses on **balancing degradation with restoration**, aiming for **no net loss of productive land**.

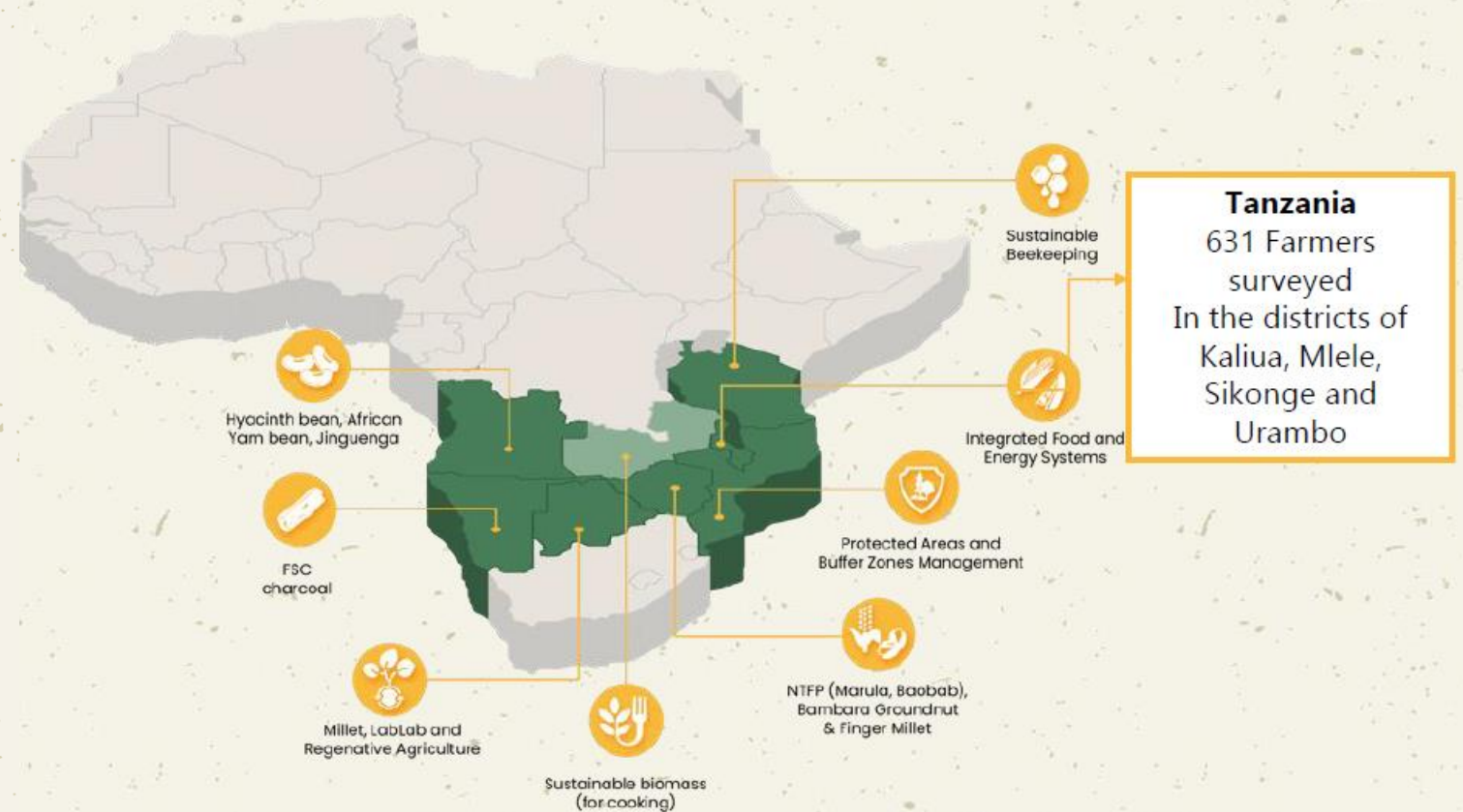# Resilience and Land Degradation Neutrality (LDN)

Resilience refers to the ability of soils, vegetation, and ecosystems to:

- Withstand pressures such as drought, overgrazing, deforestation, or climate change
- Recover from disturbances without shifting into a degraded state

Why resilience matters for LDN:

- Indicates the capacity of land systems to bounce back after stress
- Reflects the ability to maintain essential ecological functions over time
- Signals long-term sustainability and the continued delivery of ecosystem services
- Serves as a key factor in assessing the stability and productivity of landscapes

Household survey: resilience assessment in Tanzania

Tanzania
631 Farmers surveyed
In the districts of Kaliua, Mlele, Sikonge and Urambo

Sustainable Beekeeping

Integrated Food and Energy Systems

Hyacinth bean, African Yam bean, Jinguenga

FSC charcoal

Protected Areas and Buffer Zones Management

Millet, LabLab and Regenative Agriculture

Sustainable biomass (for cooking)

NTFP (Marula, Baobab), Bambara Groundnut & Finger Millet

Significance of bringing in farmers' perspectives

Provides a comprehensive understanding of the resilience of agroecosystems, and the behaviors and challenges faced by smallholder farmers in adopting sustainable agricultural practices.

How is the data useful in the DSL-IP interventions?

➢ The assessment reveals **gaps in coping strategies**, with households predominantly relying on off-farm employment or aids in times of shock. This call for a need to **develop strategies and adaptation measures** like upscaling the Non-Utilized Species (NUPS) which are climate resilient.

➢ Existence of a **knowledge gap regarding long-term effects of land degradation** which might impact their urgency toward SLM adoption. Therefore, **right interventions or information** could motivate the adoption of SLM practices to prevent further degradation.

➢ The assessment provides a way for the **project on tailoring the capacity needs of the community** with regards to their needs so as to strengthen their resilience, adaptation and coping strategies to climate changes.

Key findings on target agricultural activities

➤ The assessment revealed **how farmers are experiencing difficulties in access to farm inputs especially quality seeds**. This signifies the need of developing the Community seed banks **(CSBs)** which will act as hubs for conservation of seeds as well as knowledge sharing among farmers.

➤ Promoting land management practices which ensures soil health is maintained as well as improved farm yields such as intercropping skills and agroforestry to be promoted.

Challenges and opportunities

Challenges faced during the Assessment:

i. Some **women were not ready to respond** to the questionnaire incase men were not found at home (Fear and lack of confidence).
ii. **Inconsistence in translation** between each enumerator may have lead to bias.
iii. To some respondents, the questionnaire was a **bit bore some.**
iv. Some respondents **had their own expectations** on mind for instance expecting to receive money or material immediately

Opportunities:
i. **Agriculture programs to be introduced** to encourage crop and income diversification, reducing resilience on single sources of crops.
ii. Provide **awareness sessions** to explain the long-term benefits of SLM practices in protecting land productivity. Engage successful SLM adopters as "local champions" to demonstrate simple, high-impact practices that can be implemented with limited resources.

Lessons learned

Lessons Learned:

❖ Incorporating resilience into LDN monitoring and decision-making ensures that investment in land **restoration are durable and adaptive**, especially in the face of climate change and socio-economic pressures.

❖ **Strengthening household resilience** across multiple dimensions will also impact the achievement of LDN.

❖ The need for **better information dissemination systems** and more inclusive farmer group membership to ensure farmers are equipped with the necessary resources and knowledge to respond to challenges.

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