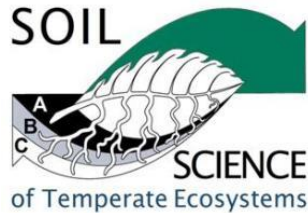


# A “win-win” scenario: the use of sustainable land management technologies to improve rural livelihoods and combat desertification in semi-arid lands in Kenya

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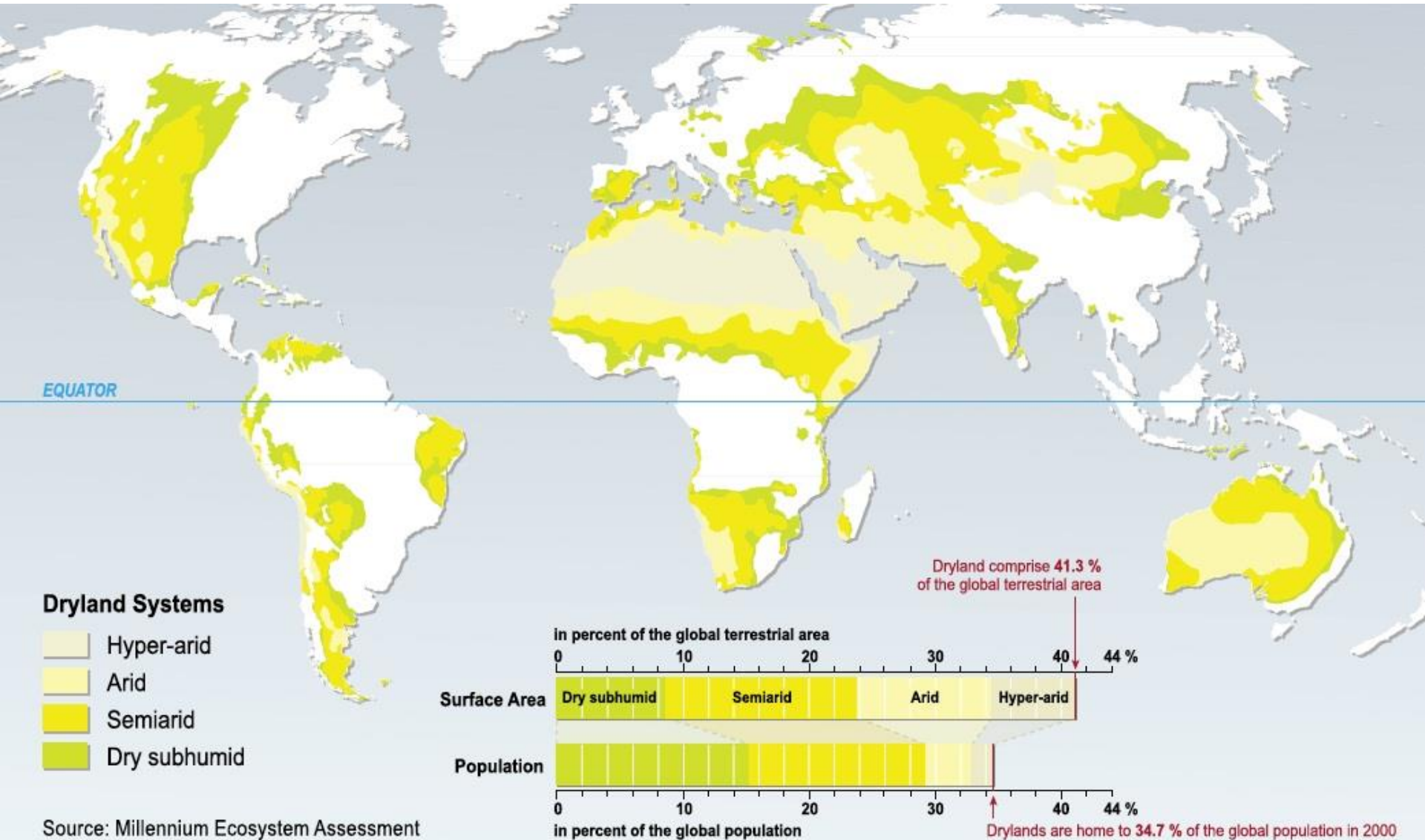
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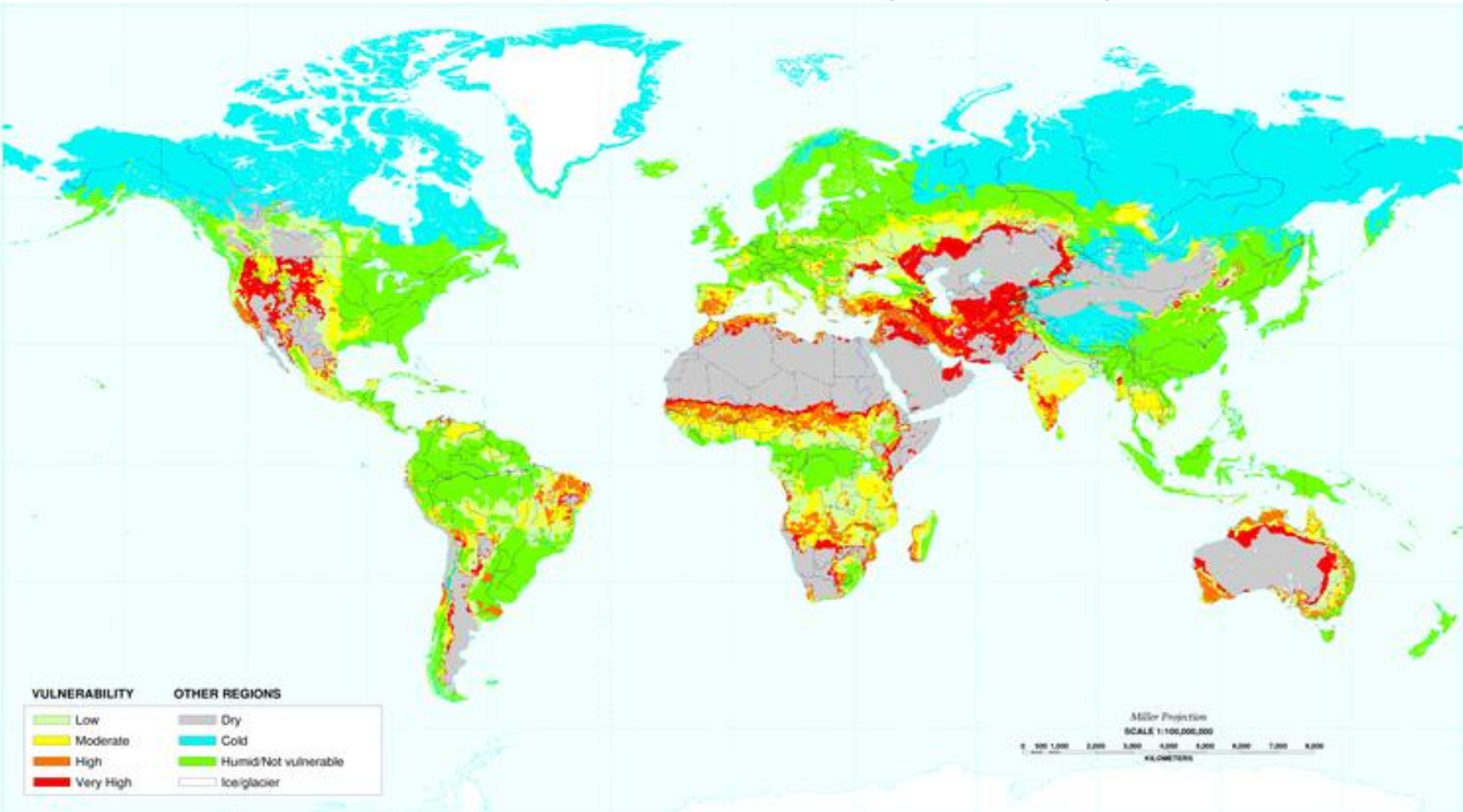


# Global dryland systems



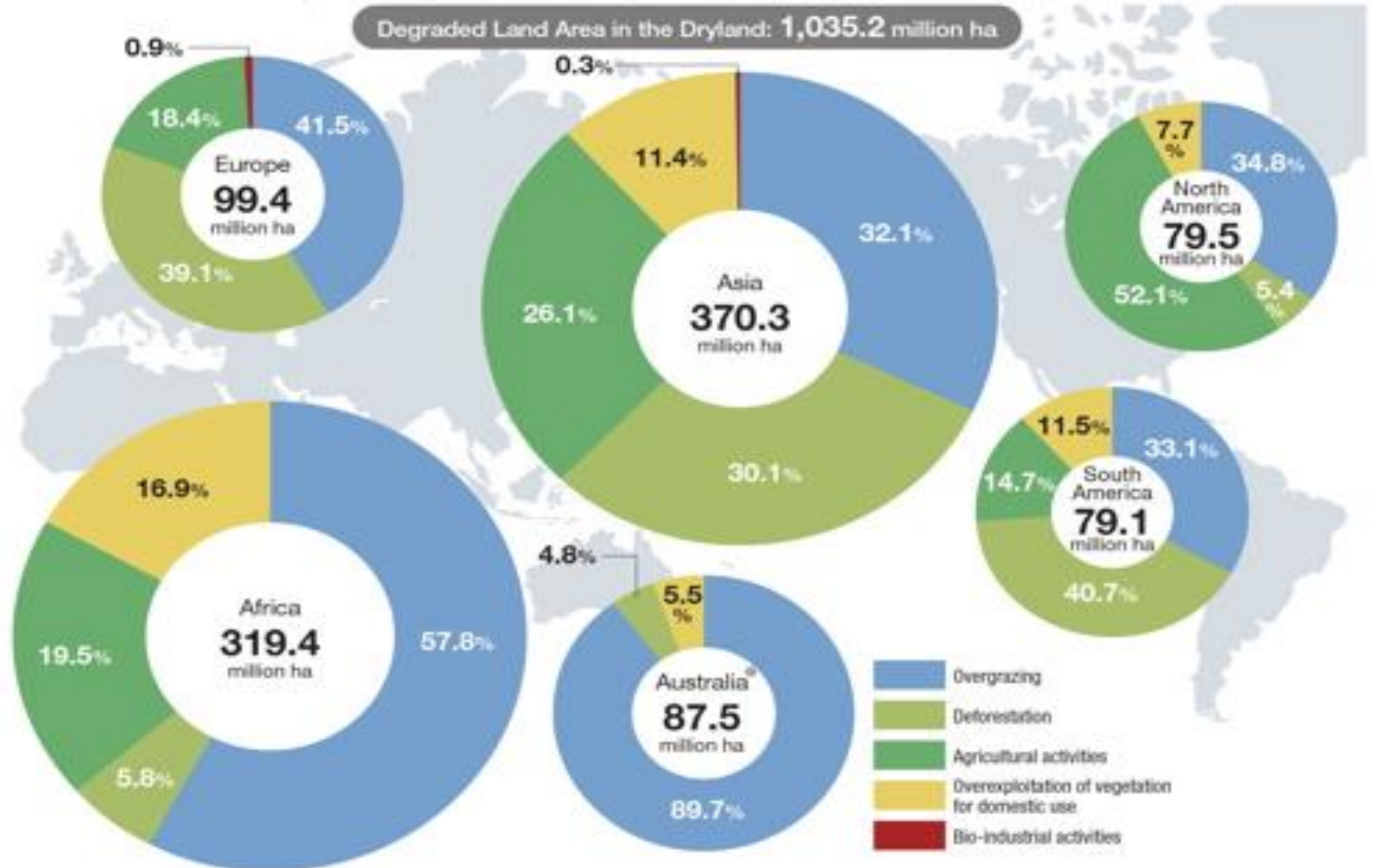
Source: Millennium Ecosystem Assessment

## Desertification vulnerability in the drylands





# Causes of desertification



## Objectives of the study

- ❖ To determine what agropastoralists inhabiting semi-arid land in Kenya, attribute to be the causes of desertification;
- ❖ To document sustainable land management (SLM) technologies being undertaken to combat desertification and improve livelihoods;
- ❖ To identify the factors that influence the choice of these SLM technologies.

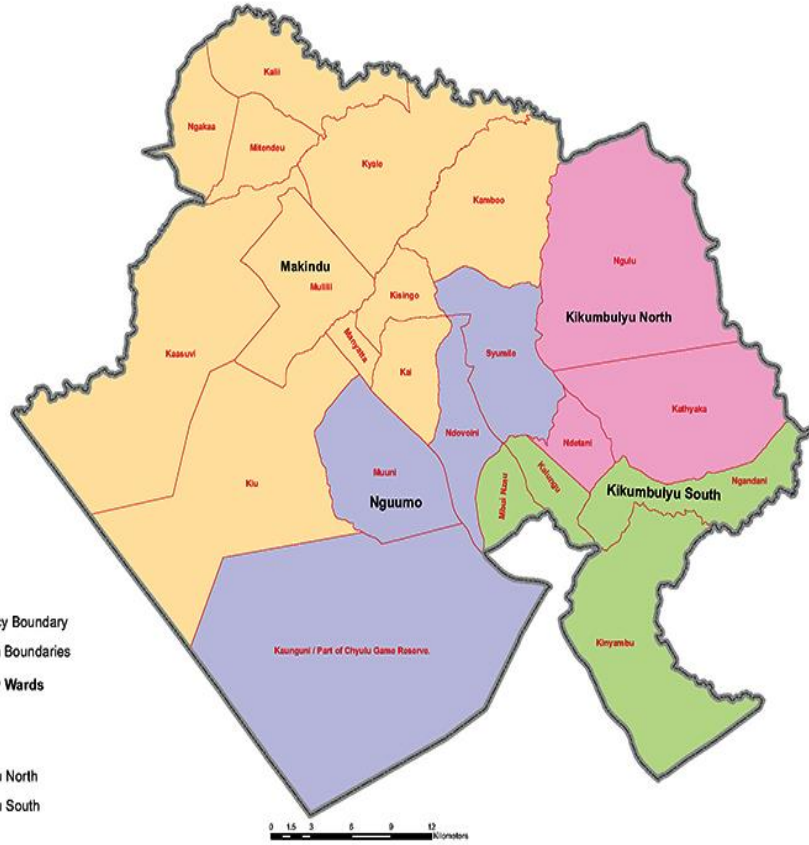


# Study Area, Makueni County, Kenya



## Legend

- Constituency Boundary
- Sublocation Boundaries
- County Assembly Wards
  - Makindu
  - Nguumo
  - Kikumbulyu North
  - Kikumbulyu South



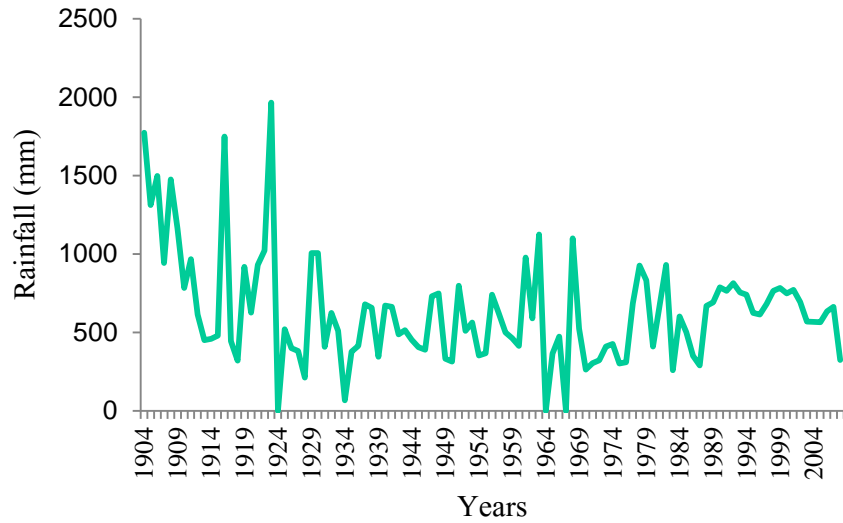


## Methods

- ❖ **Household interviews** were administered to the head of each household using the national language, Swahili.
- ❖ **Focus group discussion (FGD)** involving ~20 participants.
- ❖ **Key informants interviews** with the local area chief, village elders and older (>50 years old) farmers.
- ❖ **Annual rainfall data (1904-2008):** Makindu Meteorological Station, Makueni County.



# Causes of desertification





# SLM 1: Grass reseeding



*Eragrostis superba*



*Cenchrus ciliaris*



*Enteropogon macrostachyus*





## SLM 2: Agroforestry: Multipurpose tree species



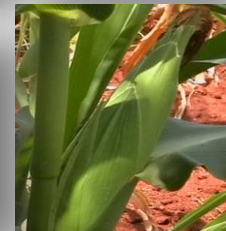


# SLM 3: Soil conservation and water harvesting





# Why these technologies?

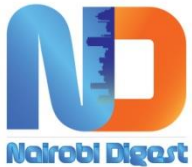




## Conclusions

Successful sustainable land management in the drylands must:

- a. target the diverse biophysical and socioeconomic contexts in dryland ecosystems.
- b. allow for adaptation to specific agroecological conditions
- c. create avenues for resilience in the midst of environmental and climatic changes.
- d. Create a ‘win-win’ scenario for the target group.



Grass farmers earning millions, making a difference in the ASALs

Posted by Nairobi Digest on 24th October 2012 by Caleb Mutua

...“Traditionally, farmers would keep livestock and sell them during dry spells to buy food. But since we started growing grass, our livestock have enough quality forage that meets their nutritional value demands....”

...“When I first started growing grass, people thought I was **crazy** because grass grows naturally. But with time and because of the progress I have made, my neighbouring farmers have joined me...”

# Acknowledgements

