

Managing rangelands and pastures for a changing climate in Southern Africa

S. Dube, I. Chakoma, L. Gwiriri and G. Manyawu

International Livestock Research Institute, Southern Africa Regional Office, P.O. Box MP163, Mount Pleasant Harare, Zimbabwe; Email: s.dube@cgiar.org

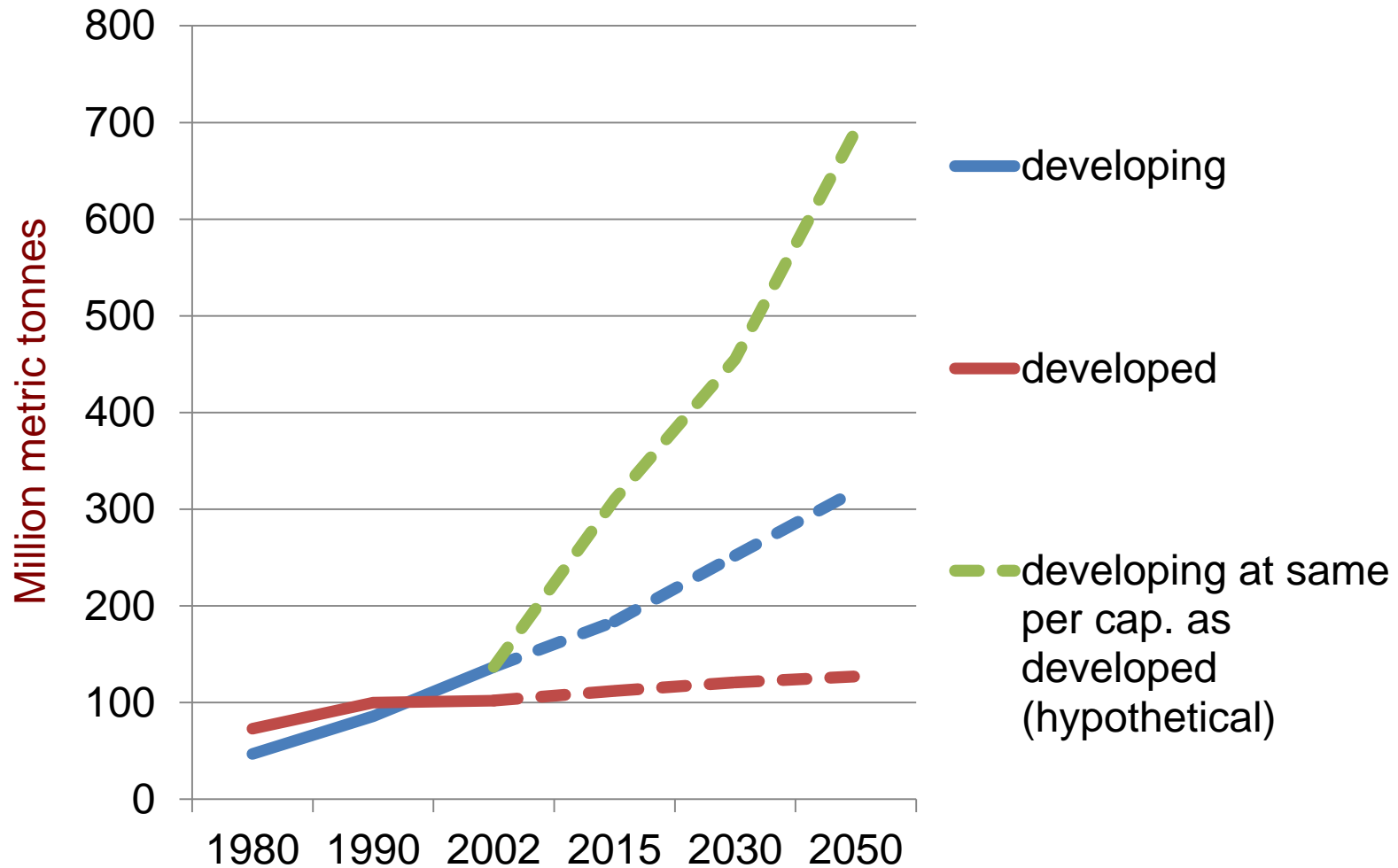


RESEARCH
PROGRAM ON
Livestock and Fish

Rangelands and pastures: Context

- Rangelands constitute 41% (394 million ha) of total land area of the SADC region (Naidoo, 2013)
- Dominated mainly by grassland, arid and semi-arid-savannah, nama and succulent karoo
- Largely used for livestock production through agro-pastoral and pastoral systems, industrial livestock systems and mixed-crop livestock systems (Thorntorn, 2006a)
- Supporting over 200 million people
- Increased demand for livestock products in Southern Africa against dwindling grazing areas, typical of demands exhibited by developing countries
 - Contend with the need for increased production in decreasing area, confounded by climate change

Gains in meat consumption in developing countries are outpacing those of developed countries



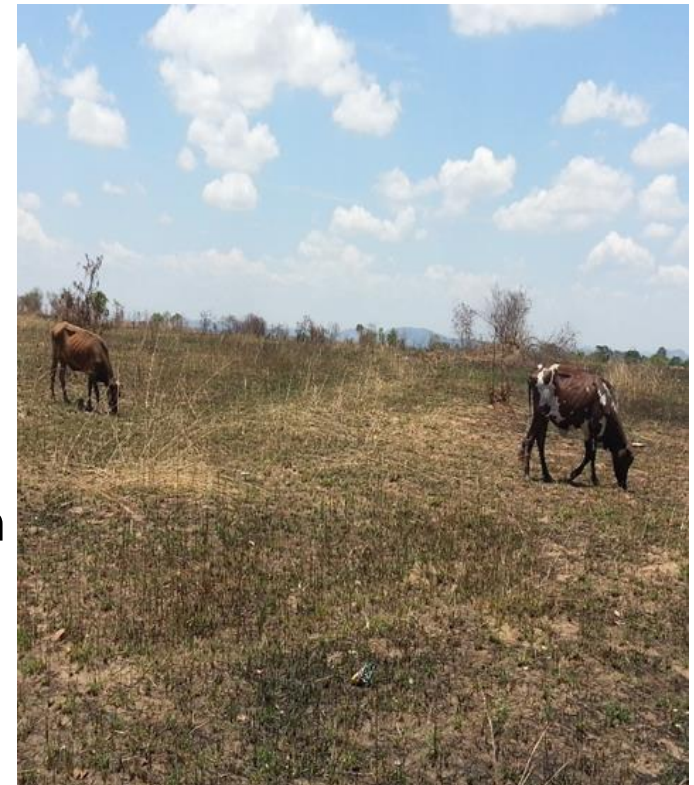
Challenges to rangelands and pastures

Climate Change and Biophysical

- Change in rainfall frequency and intensity determine rangelands species composition, with most annual species not reaching maturity and seeding.
- Variability in rainfall presents a challenge in predicting a sustainable stocking density and grazing management options
- Increase in unpalatable species and intrusion of non-native varieties of plants and weeds (e.g. *Lantana camara*, *Sporobolus pyramidalis*)
- Availability and quality of forage seeds (ZimCLIFS, SIMLESA)

Land use changes and policies

- Increase in crop cultivation; establishment of government and private ranches and tourist game parks and loss of common property resources (Fratkin 1999)
- Rangelands degradation
- Reduction in area available for pasture cultivation
- Conversion to crop lands due to population increase in urban and agrarian societies.
- Insecure land rights that limit access and create local shortages of land



Management



Opportunities

Payment for Ecosystem Services

- Recognition of the role rangelands play in the health of the ecosystem as a carbon sink has led to discussion for PES (DBSA, CSIR exploring the mechanisms for PES e.g. an Ecosystem Services Trading Model for the Mnweni/Cathedral Peak and Eastern Cape Drakensberg Areas)
- Opportunity to develop programs that will benefit and reward rangelands communities for good land stewardship

Way forward

Rangelands and pastures support a significant portion of Southern Africa's population

Their failure will lead to increased allocation of national budgets to social welfare, hampering economic growth in the region

What can we all do?

- Map of key resources so that their utilization is better managed
- Improve livestock production (improved breeds, forage supply, integrated planning)
- Influence development of policies that support the mobility of animals to track resource
 - security of investment in livestock
- Develop technologies for harvest, storage and utilization of crop residues for livestock feeding



better lives through livestock

ilri.org

Strategy materials: www.ilri.org/mission

ilri.org
better lives through livestock
ILRI is a member of the CGIAR Consortium

Box 30709, Nairobi 00100 Kenya
Phone +254 20 422 3000
Fax +254 20 4223001
Email ilri-kenya@cgiar.org

ILRI has offices in:
Central America • East Africa
• South Asia • Southeast and East Asia
• Southern Africa • West Africa



The presentation has a Creative Commons licence. You are free to re-use or distribute this work, provided credit is given to ILRI.