

Cultivation practices and utilisation of Marula (*Sclerocarya birrea* (L)) by smallholder farmers in dry region of Zimbabwe

BY

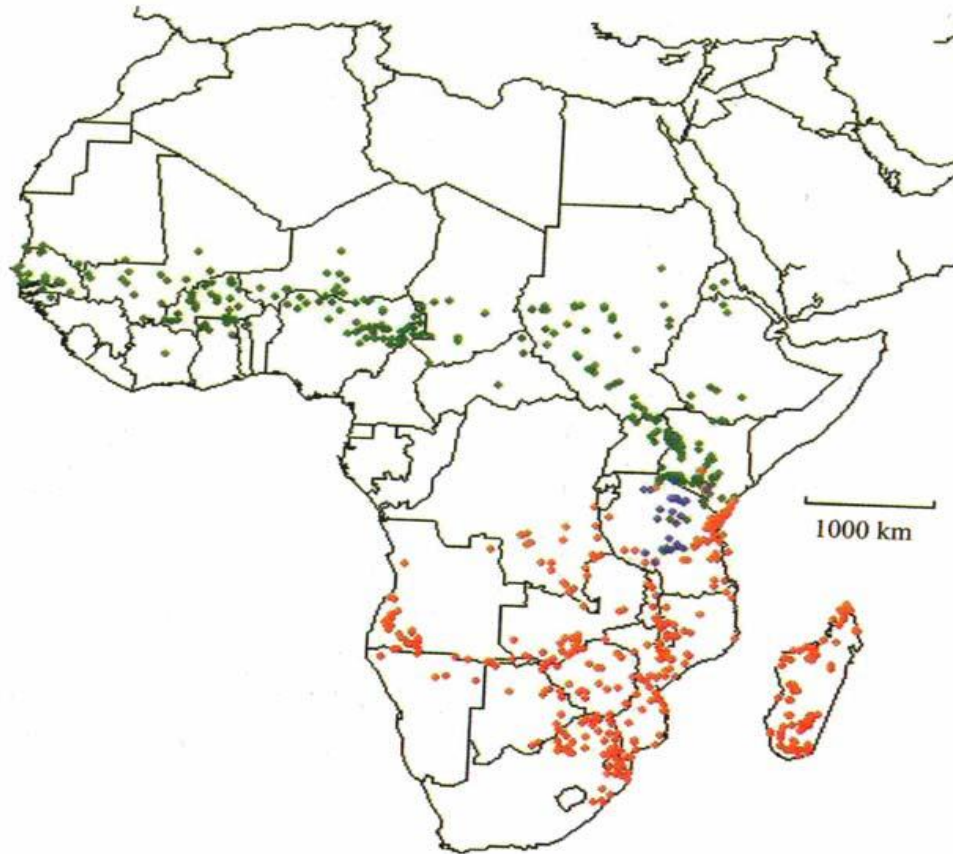
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Introduction

- ❖ Marula is one of economically important trees underutilized in Southern African countries
- ❖ The tree provides important non-timber forest products (NTFPs)
- ❖ NTFPs play a vital role in improving human nutrition, health and income.
- ❖ Commercialisation of Marula is the best to enjoy benefits
- ❖ This require sustainable domestication and cultivation practices.

DISTRIBUTION MARULA TREE IN AFRICA



MARULA TREE



Aims and objectives

❖ The aim of this study was to assess cultivation practices and utilization of Marula in dry region of Zimbabwe.

Specific objective was to:

❖ Determine the utilisation, harvesting, stem density and economic effects of Marula on human livelihoods and country at large.

Theoretical Framework

- ❖ The study was undertaken within the scope of sustainability science (humans vs environment).
- ❖ It focused on vulnerability and robustness of human-environment systems.
- ❖ Research focused on institutional frameworks which lead to sustainable management of natural resources.

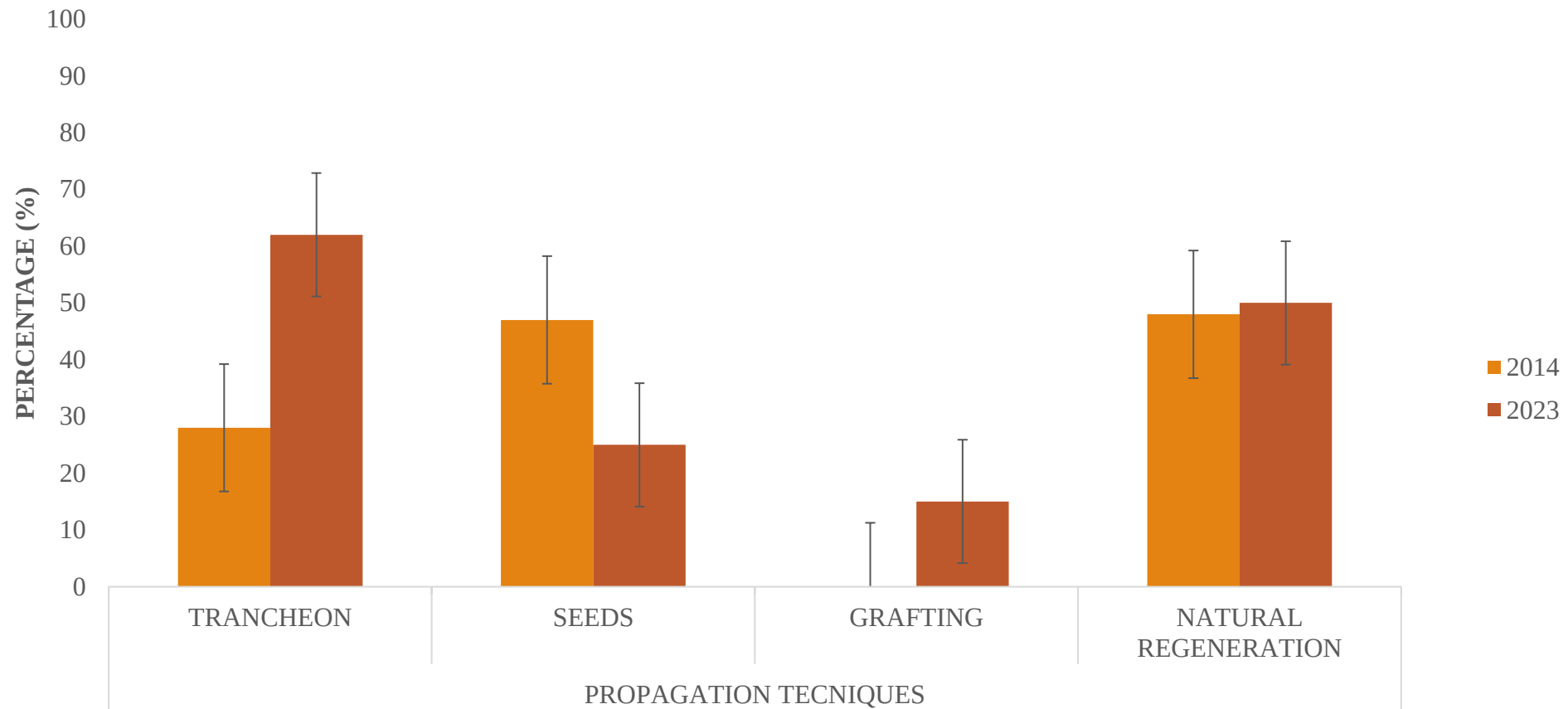
Propagation techniques

- ❖ Majority of participants (48 %) indicated that Marula is nurtured from self seeded seedling.
- ❖ Farmers had limited knowledge in tree propagation especially using grafting which increase growth and fruit yield.

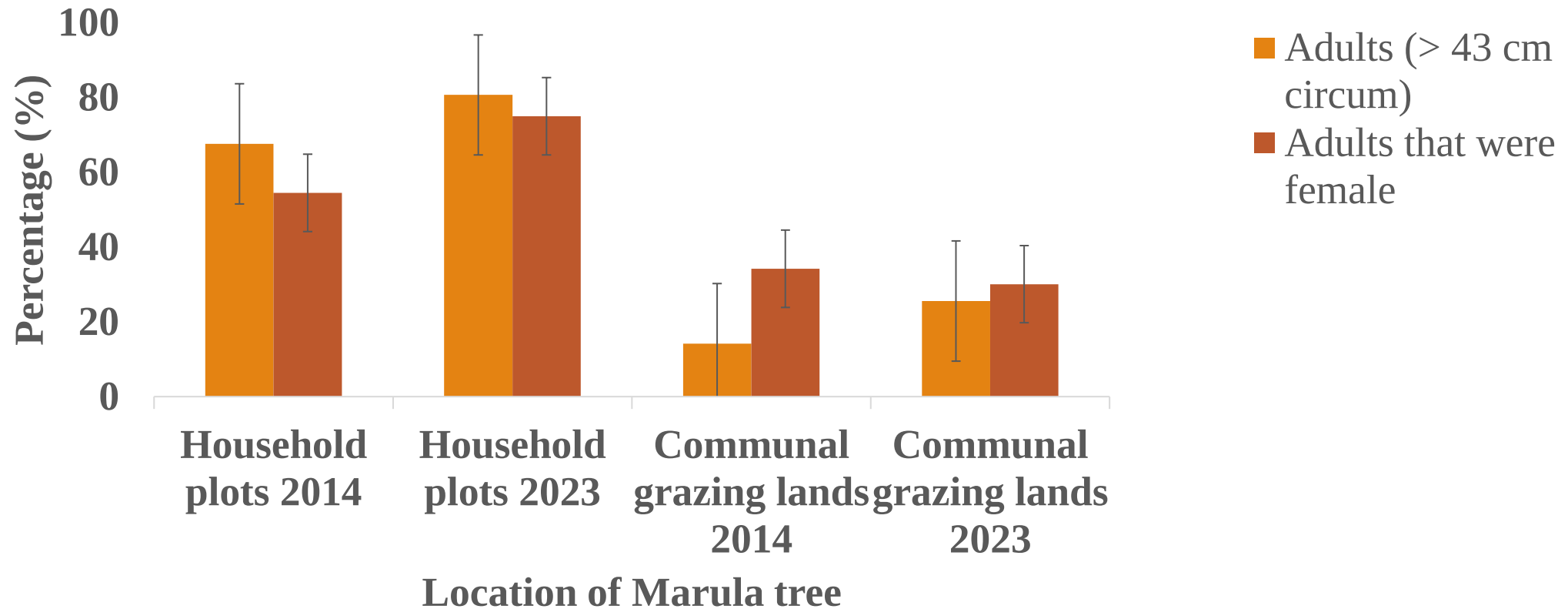
PROPAGATION USING SEED AND TRUNCHEON



Propagation techniques



Stem density in arable and non-arable



MARULA FRUITS

FRUIT BEFORE RIPE (GREEN IN COLOUR AND HARD)

Fruit before ripe, attached to tree



FRUIT AFTER RIPE (YELLOW IN COLOUR AND JUICY)

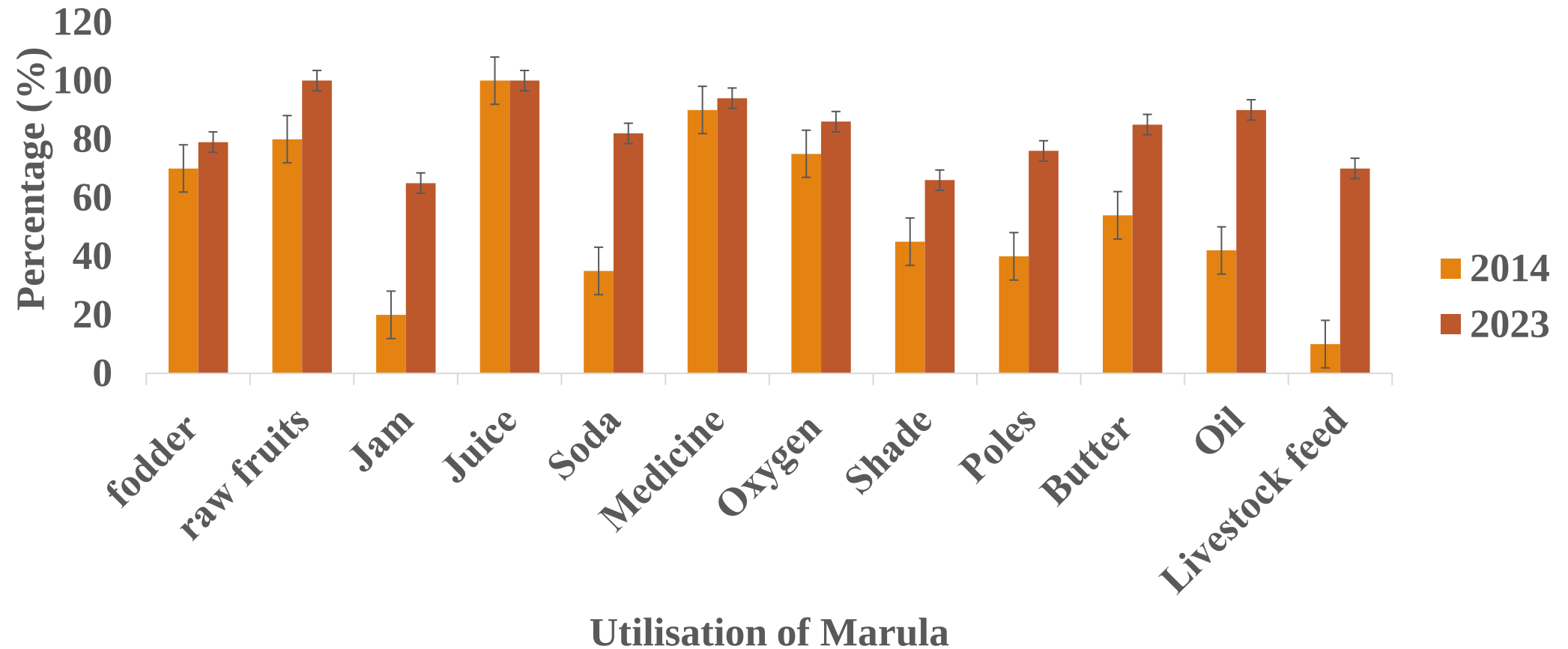
Harvested ripe Marula fruit



MARULA NUTS



Utilisation of Marula



Potential economic benefits of Marula

- ❖ On average Marula tree yield 300 kg (72 litres juice).
- ❖ A farmer is guaranteed US\$60-72 per tree.
- ❖ Domestication with 246 tree/ha (9 m between rows and 4.5 m within rows).
- ❖ Expected yield (65 000 kg/ha) i.e. 15600 l (translates to US\$15600).

MARULA BEER, WINE AND OTHER USES



MARULA CAKE AND OIL



TRADING POTENTIAL IN SADC COUNTRIES

Product	Current trade (US\$/yr)	Potential trade (US\$/yr)	Current households employed (gathering only)	Potential households employed (gathering only)
Baobab	11,203,928	961,358,568	1,165,965	2,640,333
Kigelia	375,563	1,588,050,000	441,125	1,764,500
Marula	425,000	263,001,008	3,475,250	4,436,667
Ximenia	58,500	37,566,884	303,933	1,514,667
Trichelia	-	501,665,967	1,144,833	2,289,667
Kalahari Melon	58,500	21,126,226	745,083	1,483,167
Manketti	-	19,677,684	197,208	42,597
Parinari	-	36,516,431	1,774,250	2,365,667
TOTAL	12,121,491	3,428,962,767	9,247,649	16,537,264

WHAT SHOULD BE DONE

- ❖ Crafting of legislations (management and conservation).
- ❖ Management strategies that support sustainable utilisation and marketing.
- ❖ Creating public-private partnership.
- ❖ Governments to come up with clear policies.

THE END

THANK YOU

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