



Effect of Postharvest Losses of Traditional Vegetables on Market Participation by Smallholders in Tanzania

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Introduction

- More than 60% of households buy or grow Amaranth
- Rough handling, poor packaging, delayed symptoms
- Market quality?
- Impact of physical and economic losses not certain

Vegetable surveys in Tanzania

- **Previous AVRDC studies:**
 - **High nutritional content for AIVs**
 - **Share of AIV in household diet = 27.7%**
 - **Contribution to household income = 13%**

- **Dodoma region (D. Lotter) – studies on marketing and postharvest handling:**
 - **AIVs unsold (by vendors) = 13%**
 - **No shade (during vending) = 20%**

Survey objectives

- **Provide information on qualitative and quantitative losses for Amaranth**
- **Provide Socio-economic and marketing information on Amaranth producers**



Methodology

- **Survey in Arusha, Tanga & Morogoro**
- **160 farmers in Tanga, Arusha districts**

- **Trader and Farmer survey**
- **Postharvest loss evaluation survey**



Survey sites





Questionnaire format

- Socio-economic information
- Marketing and transport arrangements
- Postharvest handling information





Postharvest Loss Survey

Reasons for Spoilage	Percent
Hot Weather	8
Diseases	22
Harvesting damage	18
Damage during transport	4
Transport delay	2
No market	6
Poor quality of Variety	2
Other	2



Quality Assessment

27 Samples from each district

10 bundles of Amaranth per sampling

Mechanical damage and disease incidence

Scale:

1 = 0 % (None)

2 = 1 - 10% (Minor)

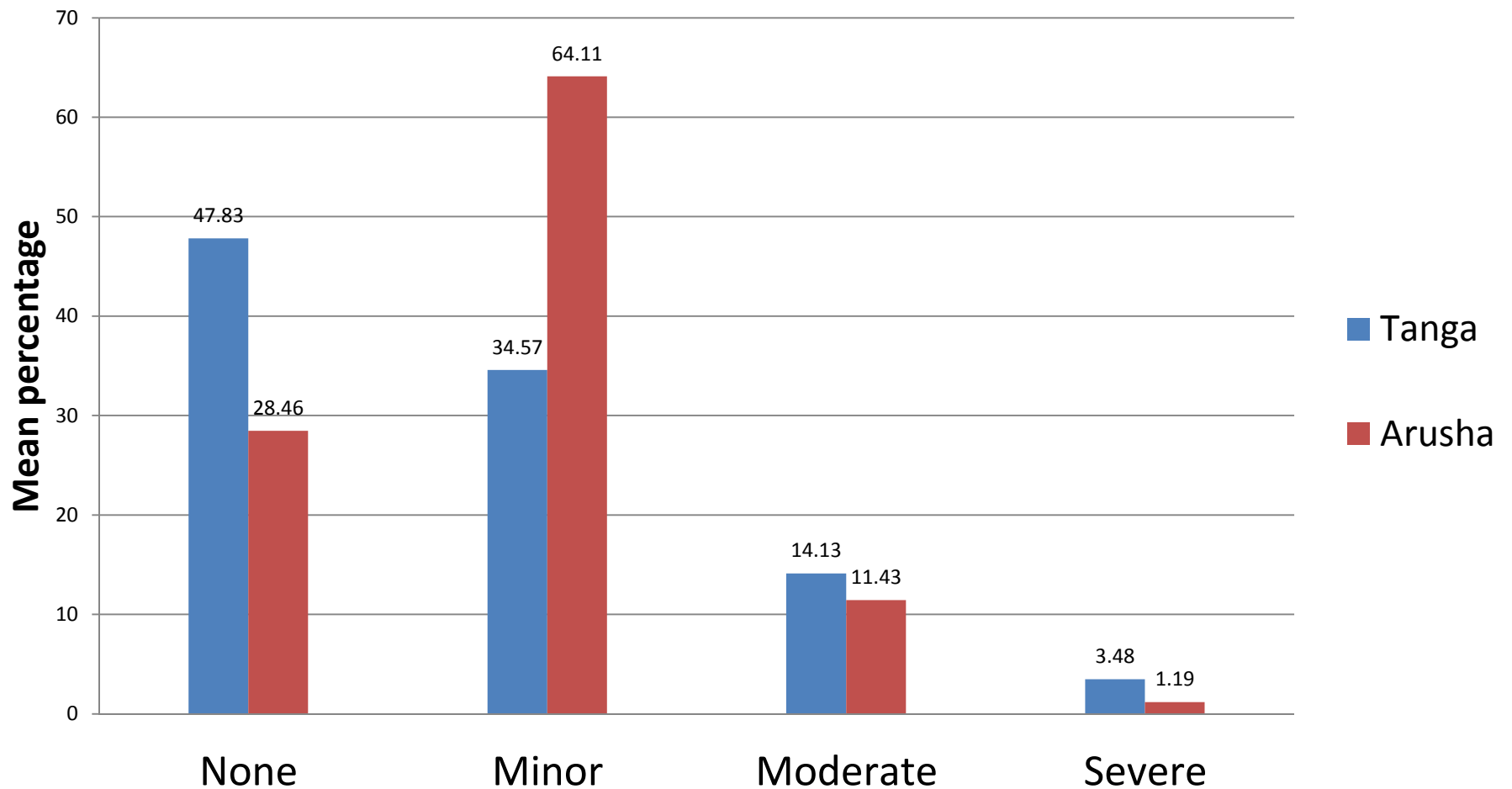
3 = 11 - 50% (Moderate)

4 = Above 50% (Severe)



Mechanical Damage – Amaranth

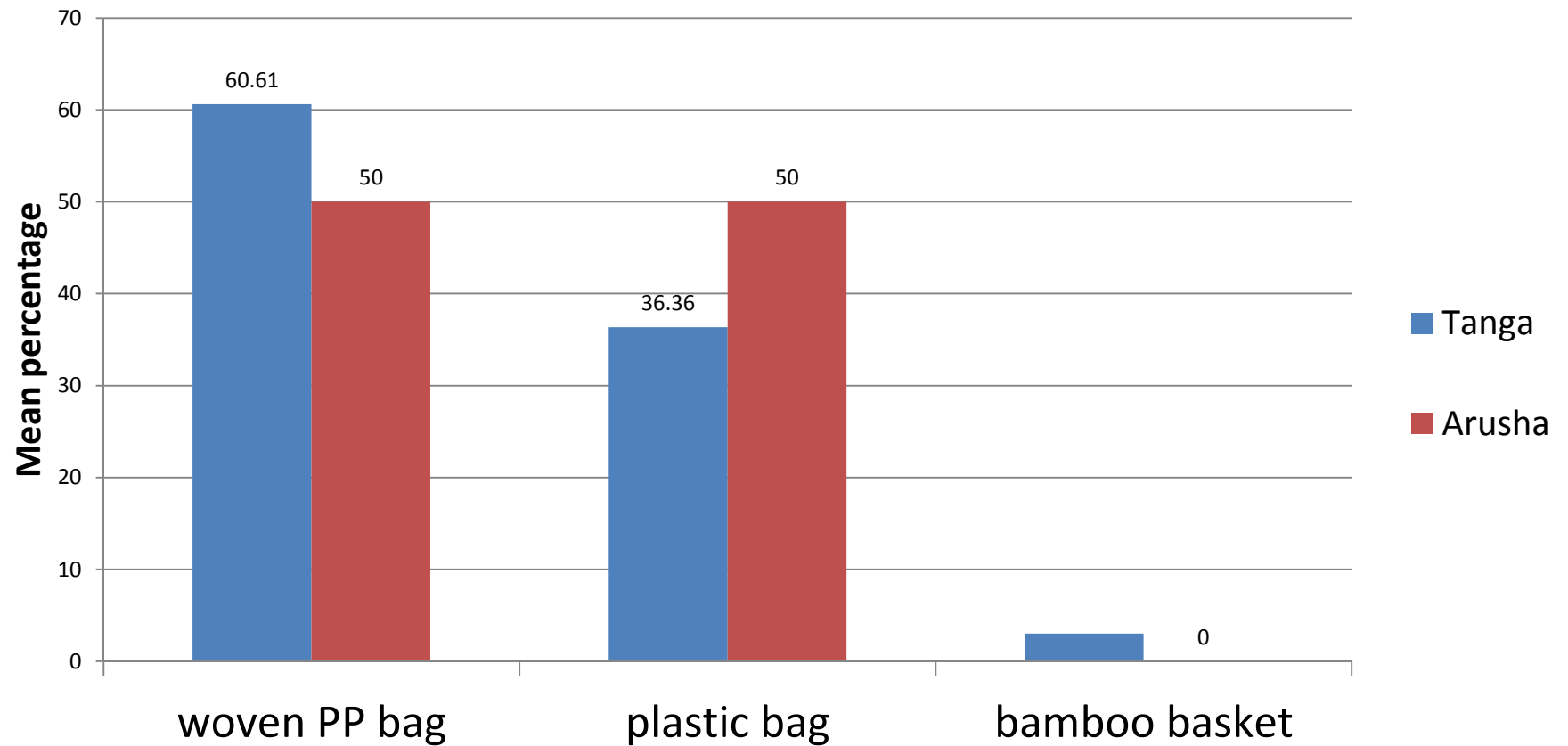
Amaranth (mechanical damage)





Amaranth packaging

Amaranth (packaging material)



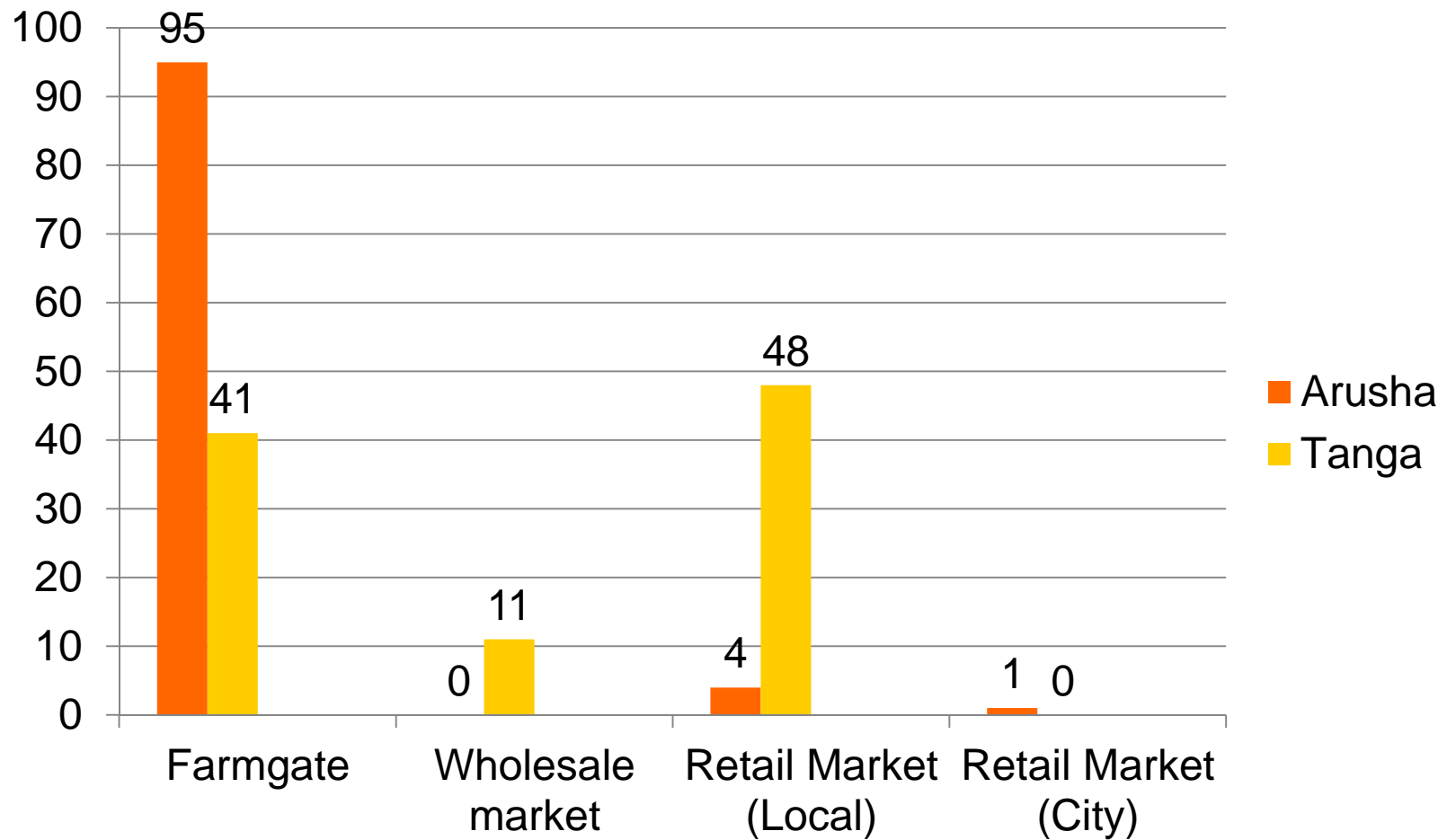


Amaranth Leaf damage

- Tanga region less damage to produce
- Tanga region baskets also used
- Use of baskets may provide more protection



Marketing outlets





Postharvest Economic Losses

	Dry Season	Wet Season
Quantity wasted (kg)	20	22
Quantity lost from total sales (%)	10	15
Cost (TSh)	5611	6504
Price reduction (TSh)	226	754

Take home message

- Regional differences in market participation
- Regional differences for losses
- Next step is research into reducing losses



Thank you!

