



Using Value Chain Approach to Reveal the Total Economic Value of Pastoral Livestock in Isiolo County, Kenya

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Why pastoralism?

• ≈ 88% of Kenya

• Over 30% of human population

- Make **efficient** use of areas less suitable for **crop** farming
- Animals represent **more than economic assets** - provide **social identity** and **security**
- Known (**not in official statistics**) to be important production system
 - It is most **suitable** and **efficient** use of drylands - productivity of pastoralism can be > other systems under the same conditions
- In Africa, its 2-10 times more productive per ha than ranching systems (Scoones , 1995)

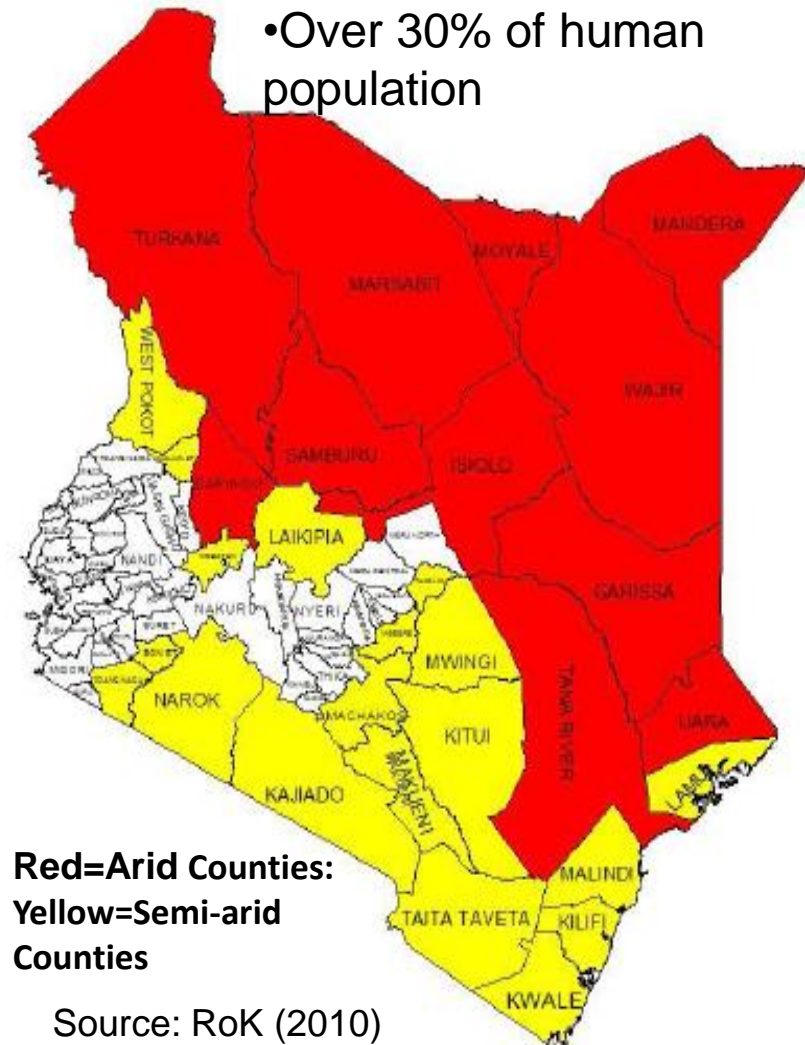
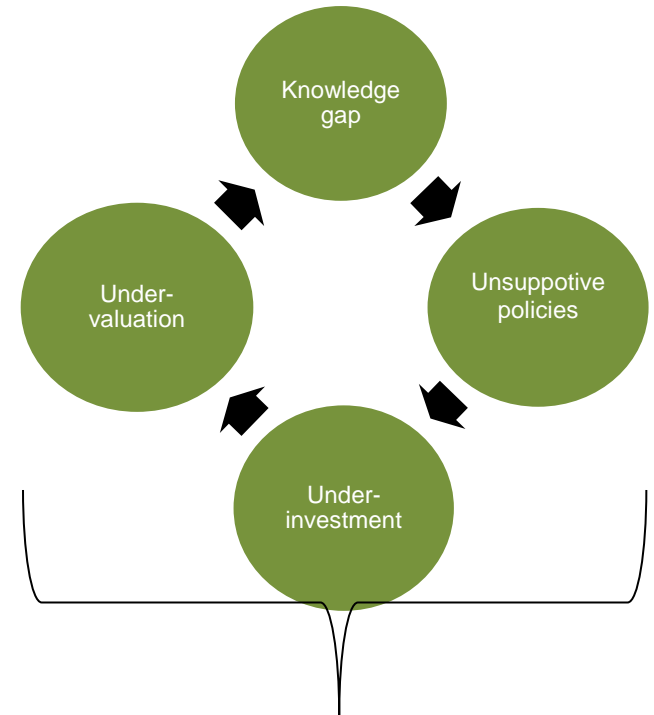


Figure 1: Pastoral areas of Kenya

What is the Problem?

- Full appreciation of pastoralism is marred by:
 1. Scarce and poor quality data
 2. Aggregated (pastoral and non-pastoral contributions)
 3. Lack of time series data
 4. Different methodologies - aggregated regional or sectoral inequalities not evident
 5. Focus on direct values and final products only (e.g. number produced and trade)
 6. Informal markets and records not considered
- ↓
- Results: Inadequate data on the comparative advantages of pastoralism over the competing land uses



- Attempts to replace pastoralism with “more productive” alternative land uses such as irrigated agriculture –
 - perpetuating a vicious circle - reinforces the very preconceptions and misunderstandings of pastoralism

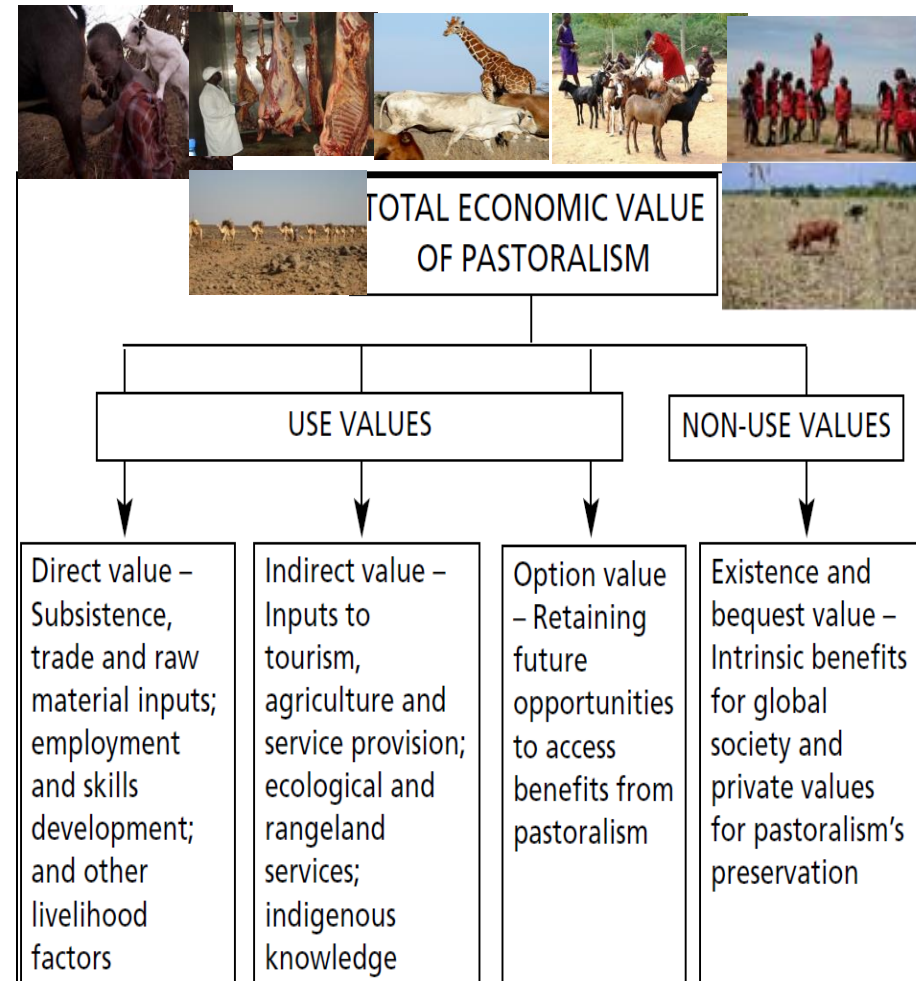
Figure 2: Vicious cycle of under-valuation of pastoralism

Why Valuation?

- Valuation - important in **decision making over the allocation of resources**
- Allows **prioritization** and **selection** of the best means to satisfy human needs at minimum costs and at peak gains
- Gross Domestic Product (GDP) - used to determine national wealth
 - weaknesses → aggregation of economic variables
- “Summarizes in a single number value of economic activity in a given period of time- usually one calendar year”
- In Kenya, GDP is compiled using both the **production** and **expenditure** approaches
 - Production and income by industry
 - Consumption, private and public (government)

Why Total Economic Valuation (TEV)?

- Estimating economic contributions of pastoralism using “conventional” methods presents significant challenges at national
- TEV recognizes:
- **multiple dimensions** and;
- **differences** between values;
- finally **combine** them into a single currency unit -used to support decision e.g. In cost-benefit analysis



Source: Hesse and McGregor (2006)

Photo credit: Roberts; Olpejeta conservancy; Oliver

Figure 3: Simplified schematic framework of TEV of pastoralism

Table 1: Conceptual framework for assessing the direct and indirect values of pastoralism

Direct values		Indirect values	
Measured	Unmeasured	Measured	Unmeasured
Livestock sales	Employment	Input to tourism	Ecological and rangeland services
Hides and skins	Social capital	Input to agriculture (manure, traction, transport)	Agricultural services
Subsistence	Transport services	Taxes and levies	Global goods
		Input to dryland products e.g. Gum arabic	Socio-cultural resources
			Animal genetic resources

Source: Modified from Hesse and McGregor (2006)

What VCA does that GDP doesn't reflect

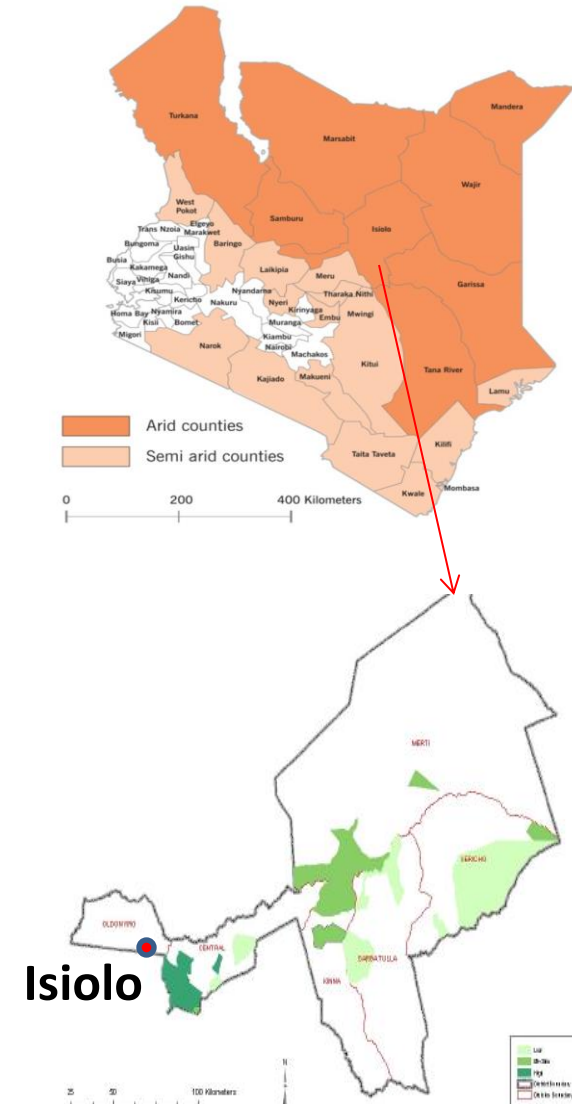
- **Disaggregation** of data (e.g. Species, systems –ranching, pastoralism etc)
- Pre- and primary markets captured → **intermediate and by-products** are captured - value at every nod of the chain
- **Employment** along the chain captured (benefits to individual actors)
- **Non-market**/peripheral transactions can be traced
- **Fringe**/indirect benefits can be captured
- Linking the final the source and processes – **proper placement of value added**

Proposed study area - Why Isiolo town?

- In the arid northern Kenya ($\approx 468\text{mm}$ per annum)
- Pastoralism - main source of livelihood ($> 70\%$)

Why Isiolo town?

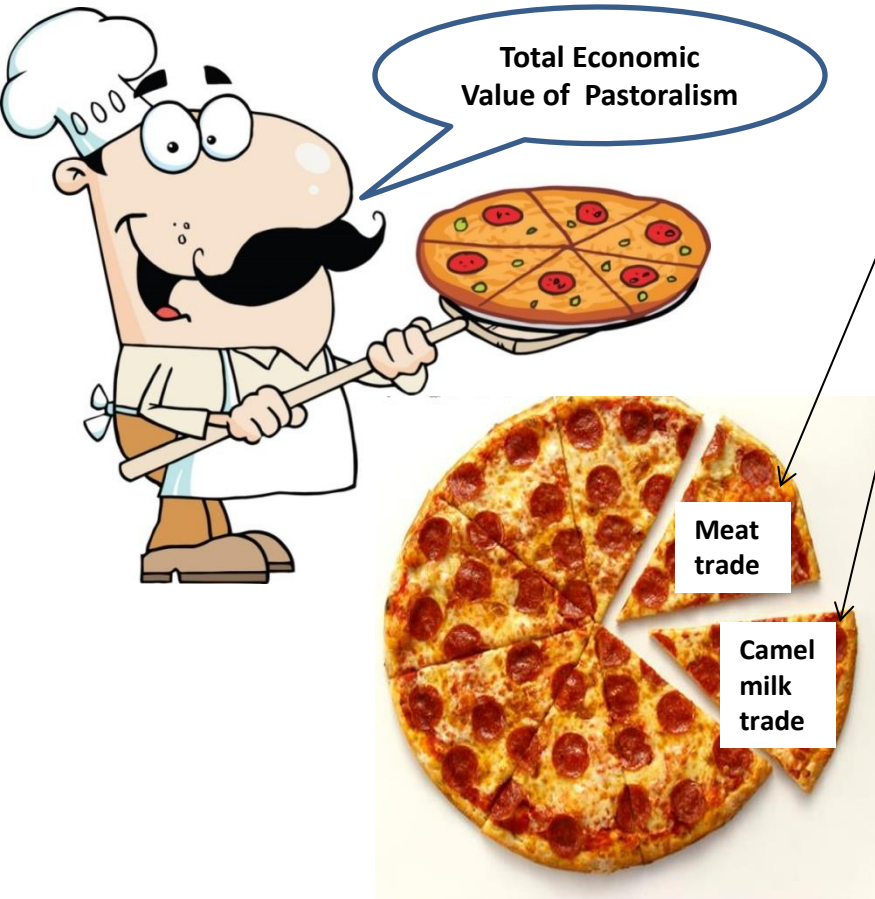
- Hub for **livestock and livestock products trade**-links the vast north and urban centres to the south – through to city of Nairobi
- $\approx 274\text{km}$ from Nairobi
- Fast growing and at the centre of government projects:
 1. The Lamu Port Southern Sudan-Ethiopia Transport (LAPSSSET) Corridor project
 2. Proposed Resort City
- Need for evidence based information to the Counties guide- **targeting the newly devolved County** government
 1. Resource allocation
 2. Development interventions
 3. Land-use planning



Source: Elmi and Birch (2013)

Figure 4: Proposed study site

Two very small slices - to start with



Research questions:

1. Which are the **marketing channels** for pastoral meat and camel milk in Isiolo town?
2. What is **number** of people **employed** in the pastoral meat and camel milk value chain?
3. How many **dependants** are supported from the meat and camel trade?
4. How much **revenue** accrue to the County council from pastoral meat and camel milk trade?

- Changing policy makers' perceptions of pastoralism is a complex and long-term process.
- Starting point: improving their understanding of its **dynamics and economic rational**, particularly the its **direct economic contribution**

Methodological approach

Objective	Method/source of data
<p>1. Characterization of marketing channels (actors, roles and interactions)</p> <ul style="list-style-type: none"> • Identification of meat wholesalers, butcheries, restaurants/eateries selling pastoral meat 	<ul style="list-style-type: none"> • Key informant interviews (KIIs) with sellers and buyers at the market and, slaughter slab operators, butchers, owners/managers of restaurants and eateries, and revenue, livestock & public health and livestock marketing officers at the County) • Focus group discussions (FGD) with traders (livestock & meat) • Secondary data (county)
<p>1. Quantify the number of people employed in the pastoral meat trade and their dependants</p> <ul style="list-style-type: none"> • Estimate the income of traders and employees from pastoral meat trade 	<ul style="list-style-type: none"> • Semi-structured interviews (SSI) interviews with, livestock traders, meat wholesalers, butcheries, slaughter slabs, managers or owners of restaurants/eateries; employees dealing in pastoral meat
<p>1. Determine revenue (licences, cess, fees, meat inspection fees) to the County from pastoral meat trade</p>	<ul style="list-style-type: none"> • Key informant interviews (KIIs) & Secondary data with revenue, livestock & public health and livestock marketing officers at the County)

Economic contribution of pastoral meat to Isiolo Town

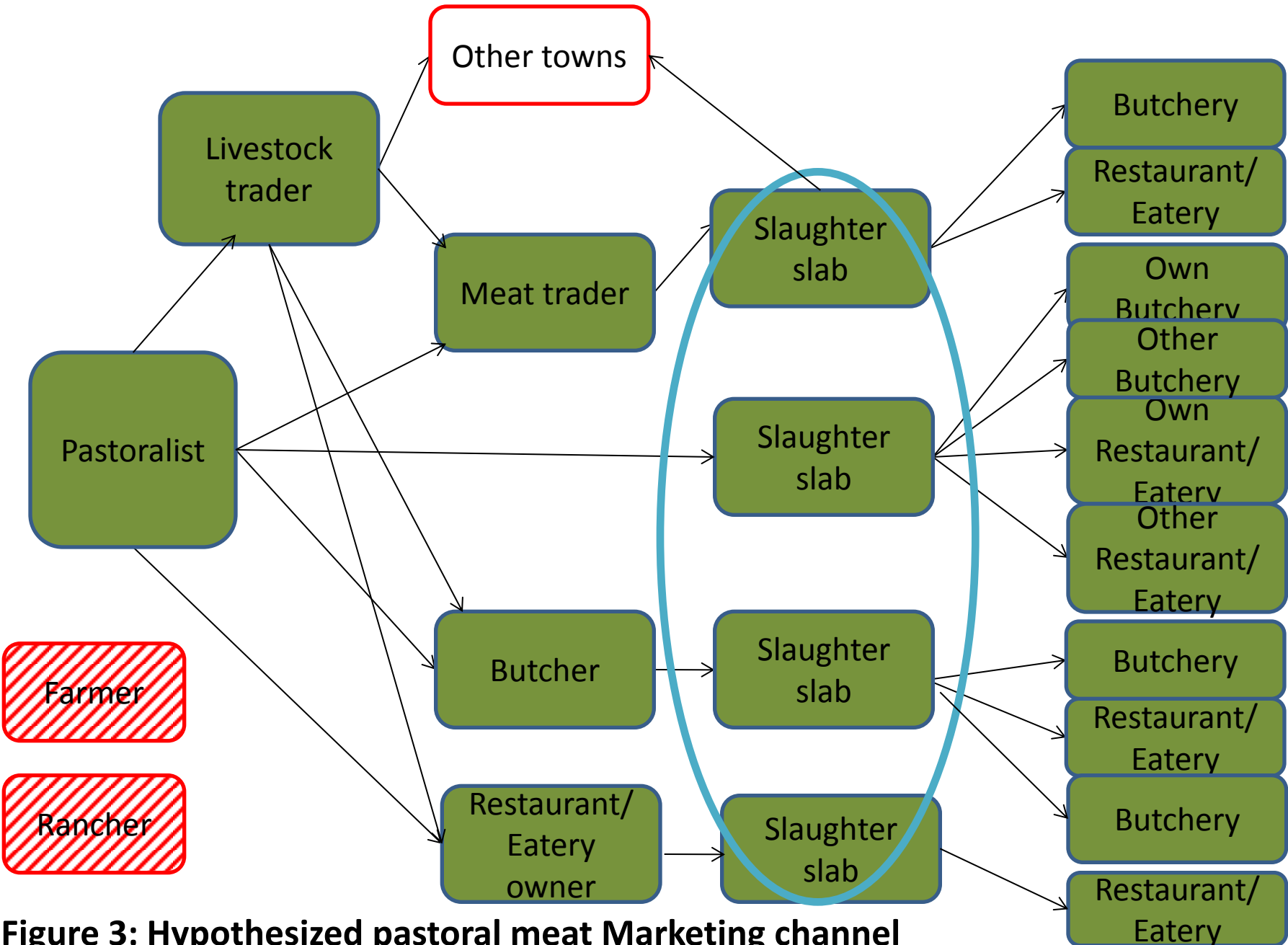


Figure 3: Hypothesized pastoral meat Marketing channel

Economic contribution of camel milk to Isiolo Town

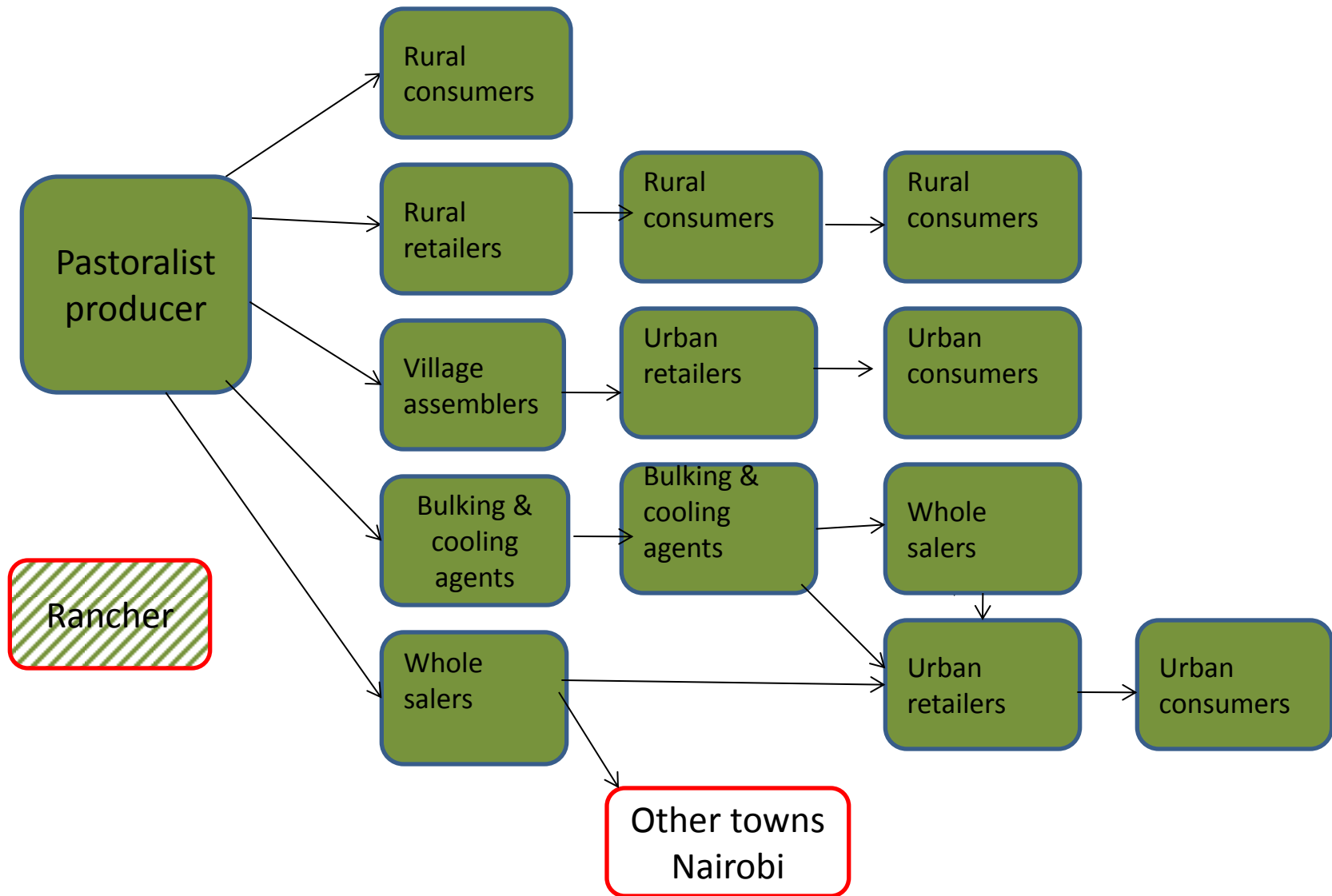


Figure 3: Hypothesized pastoral meat Marketing channel

Expected Outputs

1. Market map
2. Number employed
3. Income and number of dependents of actors
4. Revenue to County
5. A policy brief highlighting the policy implications of the findings

Acknowledgements

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Economic contribution of Nyama choma (roast meat): Case of Arusha

- **601** Nyama Choma businesses
- Employ **5,600** people - **25,000** dependents
- Numerous jobs are supported
- 6.6% of the population of Arusha benefits in some way
- In **2005**, over **31,000** cattle -slaughtered in Arusha mostly for Nyama Choma

- **If extrapolated for entire country :**
- **2.2** million people obtain some of their income from pastoral meat trade
- **15,600** Nyama Choma businesses
- Annual turnover of **USD 22million.**

Nyama choma case (Source: Letara (2006))