

**Wildlife, livestock and food security  
in the  
South East Lowveld of Zimbabwe**

**David Cumming**

**Tropical Resource Ecology Programme, University of Zimbabwe**

## Key issues/questions:

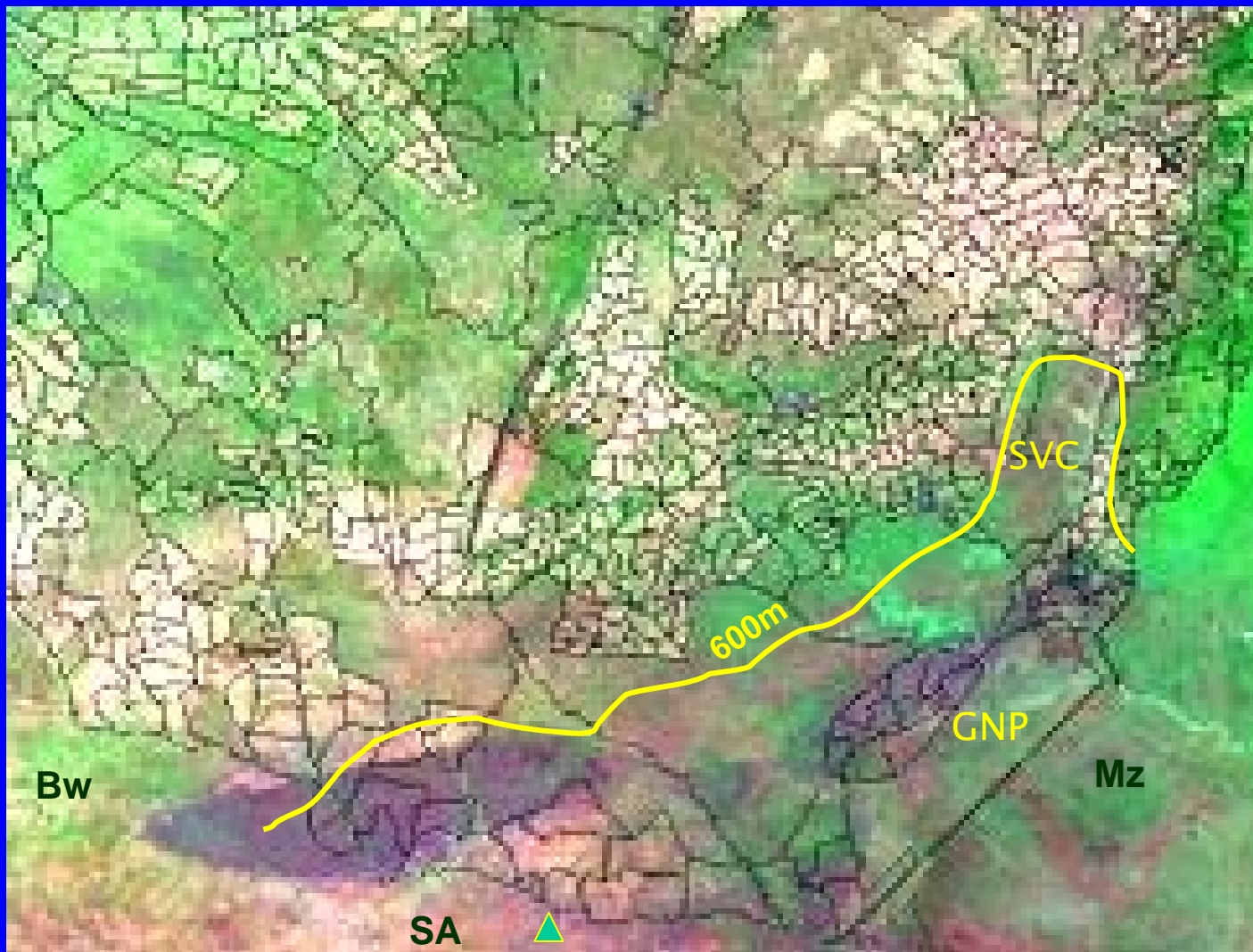
1. For *subsistence farmers* in arid areas livestock are a dominant component of their livelihood strategies
  - Wildlife diseases issues (FMD/BTB/Tryps)
  - Predators & competition for grazing
2. For *commercial farmers* wildlife/tourism is an increasingly attractive option
  - Politically it is poorly supported
  - Perceived as a threat to food security
3. For *state and private enterprise* TFCAs are a key to the development of peripheral marginal lands
  - Subsistence farmers feel threatened
  - Commercial farmers welcome the development

At the center of the debate are the issues of:

- Food security for subsistence farmers
- Distribution of benefits from wildlife as a land use

Three questions:

- How important is livestock to food security in the South East Lowveld?
- Can wildlife production systems meet livelihood needs more efficiently than livestock?
- If not what are the alternatives



Area:  
c. 50,000 km<sup>2</sup>

Altitude:  
300-600m

Rainfall:  
<400mm,  
CV >35%

Temp:  
25-27.5° C

Growing season:  
c. 90 days

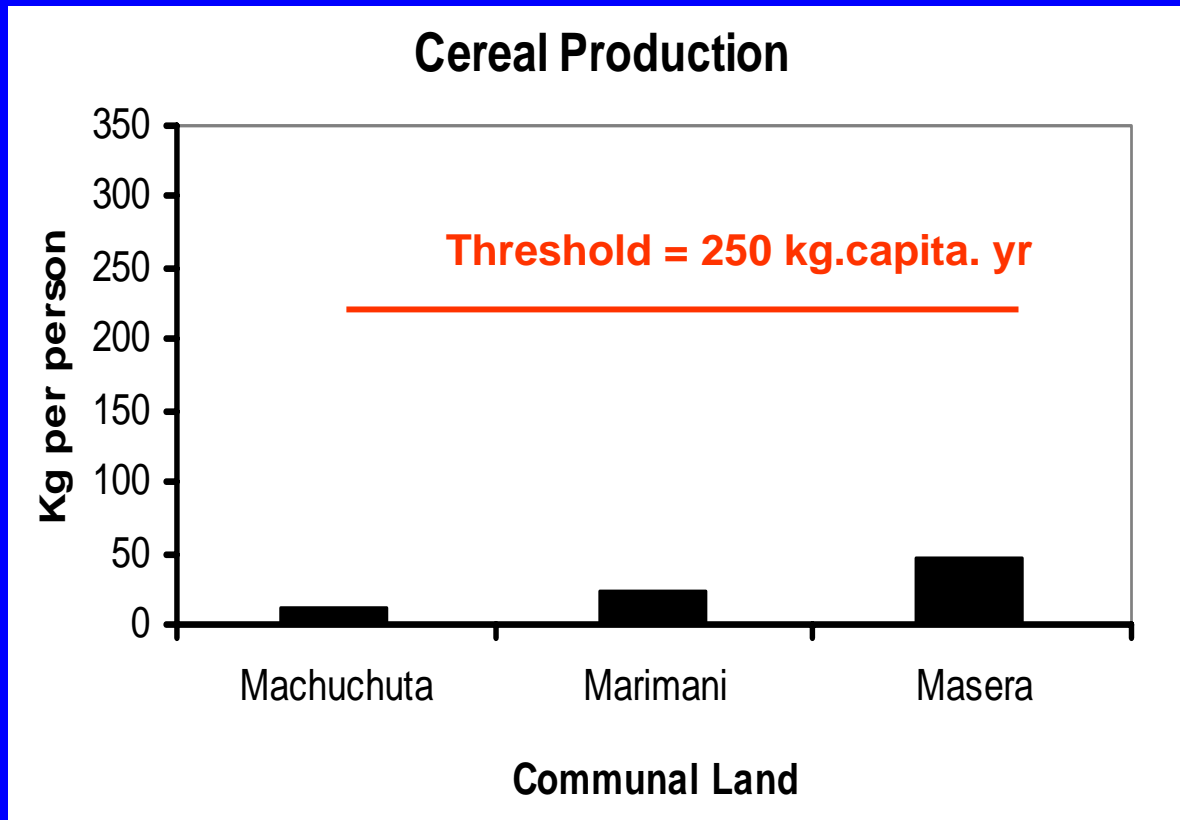
## South East Lowveld of Zimbabwe

## ***Land tenure in SE Lowveld - 57,000 km<sup>2</sup>***

<b>Land category</b>	<b>% of Area</b>	<b>People/km<sup>2</sup></b>
<b>Communal Land</b>	<b>44.2</b>	<b>11 - 52</b>
<b>Large-scale C. Farms - irrigation</b>	<b>&lt;0.01</b>	<b>?</b>
<b>Cattle ranches</b>	<b>16 ?</b>	<b>&lt; 3</b>
<b>Wildlife + cattle</b>	<b>9</b>	<b>&lt; 3</b>
<b>Conservancies</b>	<b>13</b>	<b>&lt; 3</b>
<b>Small-scale Commercial Farms</b>	<b>0.5</b>	<b>&lt;10</b>
<b>Resettlement land</b>	<b>5.6</b>	<b>?</b>
<b>Parks &amp; Wildlife Estate</b>	<b>11.1</b>	<b>&lt;1</b>

**→ *Wildlife use on c. 35%+ of the SEL***

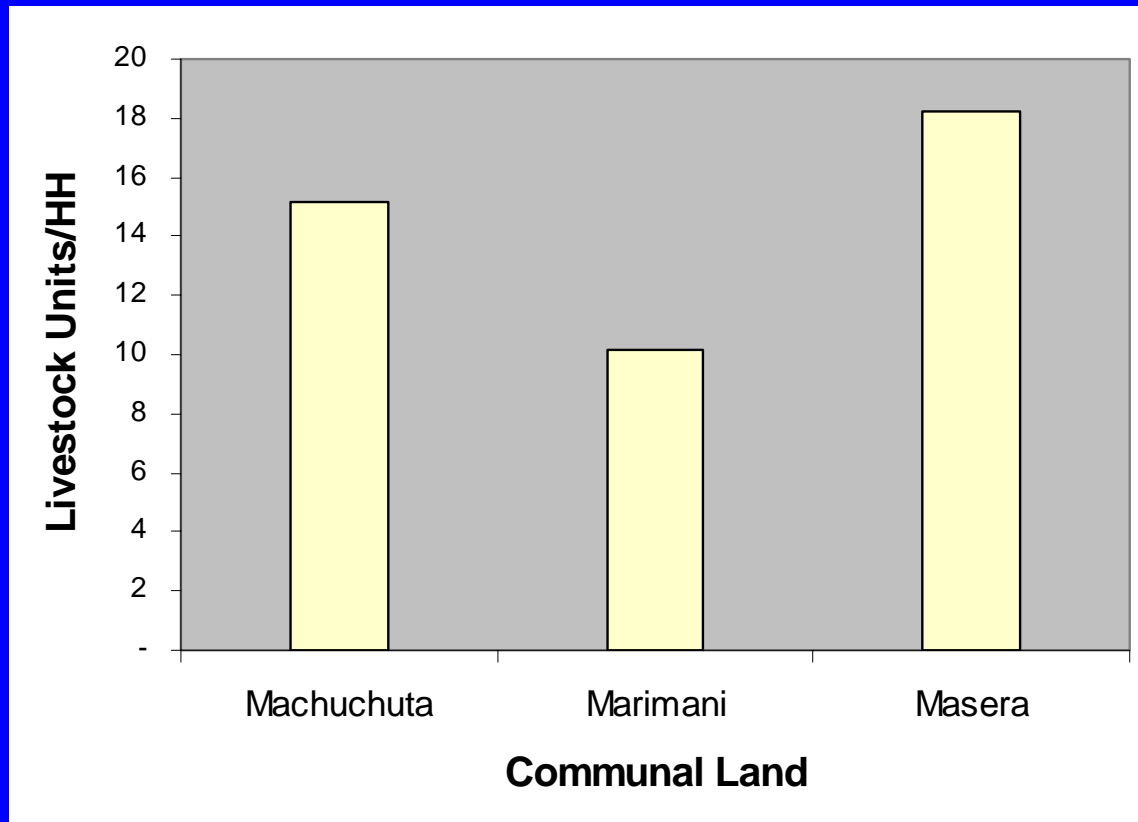
## ***Communal Lands – subsistence & vulnerability***



**All well below the  
security threshold of  
250kg/person/year**

**Cereal Production in 3 Communal Lands in Beitbridge District  
15 year average**

## ***Communal Lands – subsistence & vulnerability***



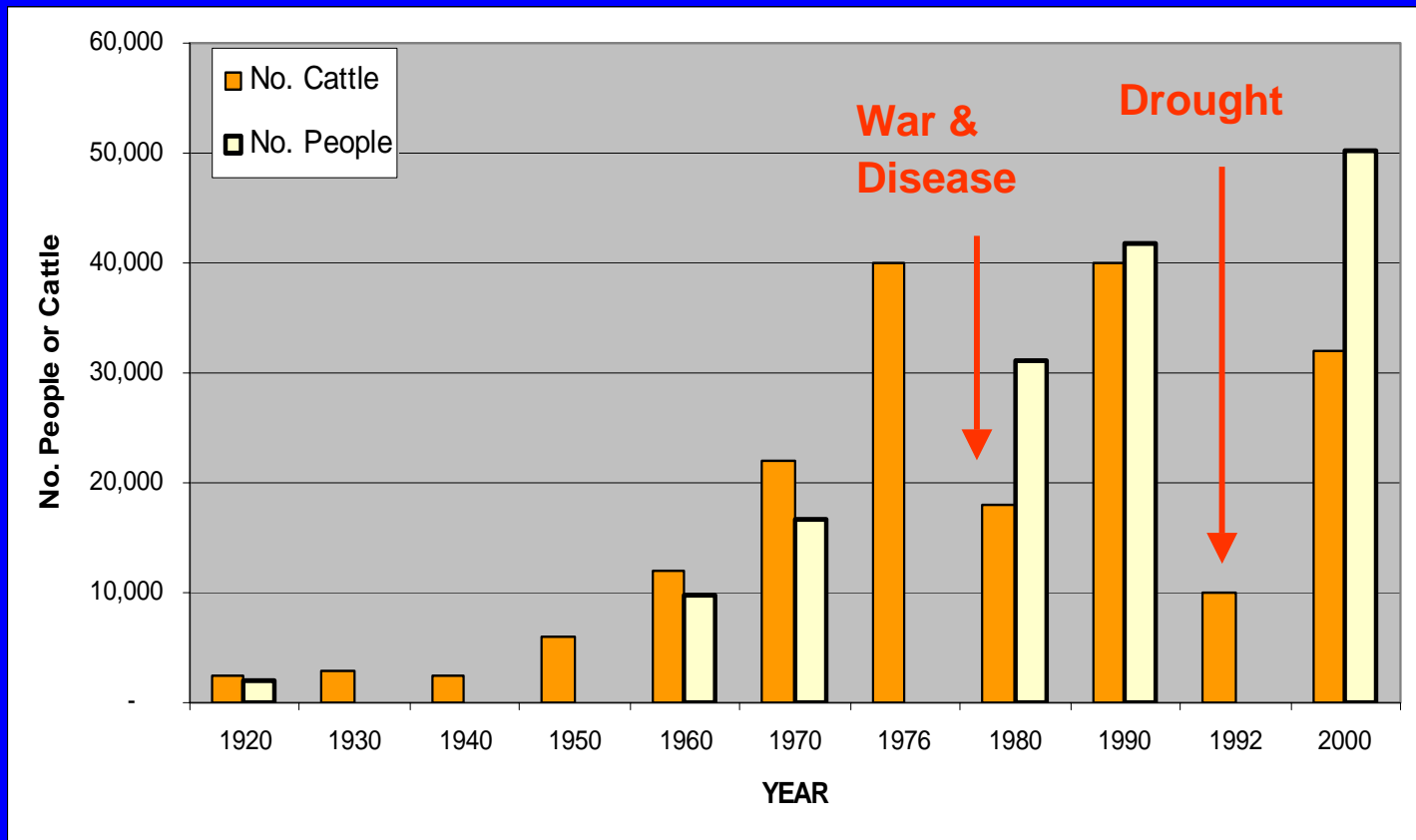
Maize equivalent income from livestock 1998/1999 above 250 Kg threshold

Masera 1,433 kg/capita

Maramani 290 kg/capita

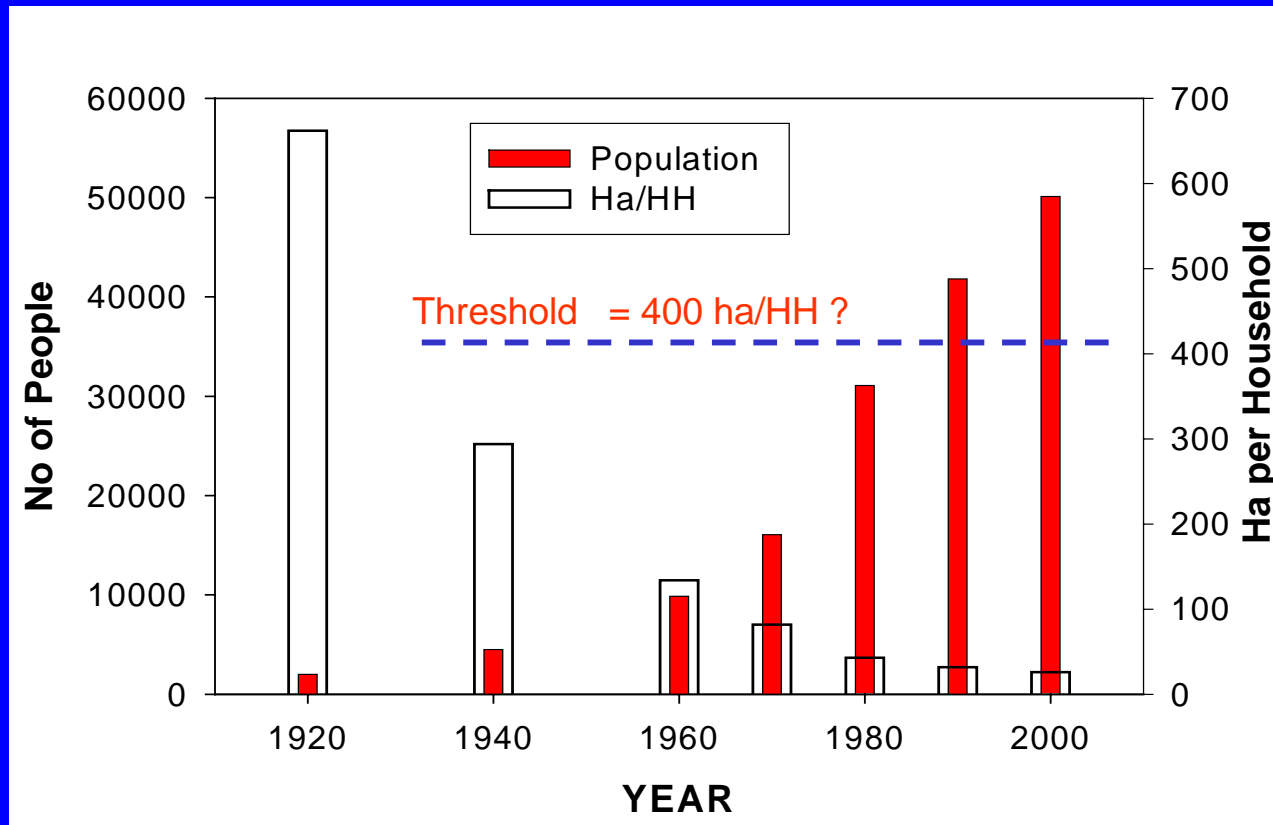
# *Communal Lands – subsistence & vulnerability*

## Fluctuations in livestock holdings – Matibi II Communal Land





## Communal Lands – farm size e.g. Matibi II



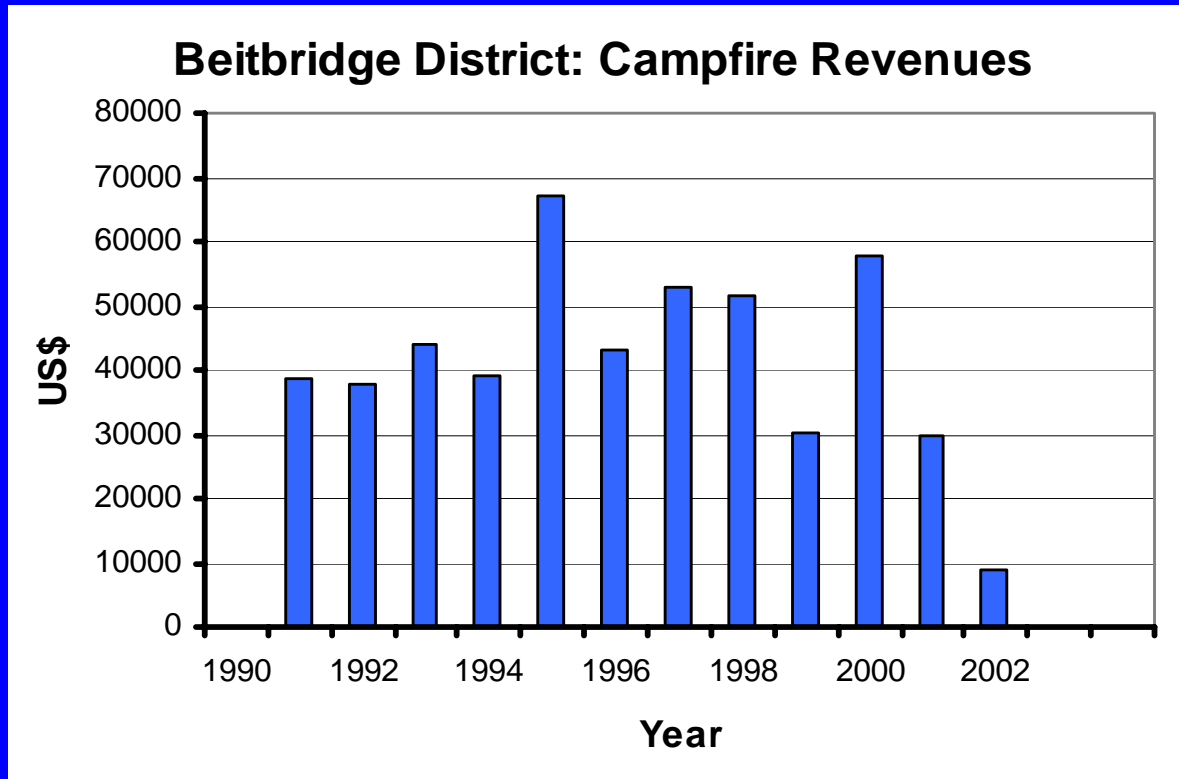
*Land required per HH with minimum external inputs:*

- Access to 20 ha arable (5 year rotation of 4ha)
- c. 400 ha of grazing land to maintain a herd of 25 cattle and 35 goats

→ *By 1940 land available per HH was less than required*

## ***Communal Lands – Returns from wildlife***

**What wildlife returns are required to move HH above the subsistence level?**



**US\$ 30,000**

**= c.100,000 kg maize meal**

**= food for 400 people**

**Population of Marimani**

**Communal Land = 4,200**

**→ Negligible contribution to food security**

## ***Commercial Ranches – Returns from wildlife***

### **Wildlife based economy and food security?**

#### **Returns from commercial wildlife (US\$):**

**Gross revenue                      \$6 - 8 ha**

**50% profit                          \$3 - 4 ha**

#### **Maize Equivalent Income from profits:**

**= c. 10kg maize meal per ha**

**or 3- 4 people per km<sup>2</sup>**

**or 1 HH to 200 ha**

**➔ *At current human densities of 1 HH to <50ha the wildlife option is also not a viable food security option***

**“The problem is that cattle are mine but wildlife is ours”**

# ***Solutions?***

- 1. Put a premium on, and invest in, higher valued land uses, diversification and intensification**
  - Irrigation + markets at scales from HH gardens to major schemes
  - Wildlife and cultural tourism
- 2. Decouple wealth creation from NPP**
- 3. Match land use and ecological process scales**
- 4. Develop policy and supporting legal frameworks that enable, rather than stifle, innovation and adaptability in resource access rights**