OPPORTUNITIES AND CHALLENGES IN ZAMBIA’S LIVESTOCK SECTOR

Antony Chapoto, PhD
Presented at the Duo Western/Southern Provincial Outreach Meeting, Livingstone, 13th November, 2015
Presentation Outline

- Overview of livestock sector
- Opportunities
- Smallholder Livestock Production
- Challenges to Livestock Production
- Policy Options
Overview of the Livestock Sector

Livestock contributes

- 3.2% to national GDP and over 30% to agric. GDP
- 6% to smallholder households’ income
  - Can be as high as 30% (among livestock market participants)
- constitutes 20% of household assets

Yet livestock budget share of the Poverty Reduction Program is remains very small
Opportunities

Livestock revolution taking place

Projections of Zambia’s total meat/milk demand from 2012 to 2027 show that

- (120 to 600) thousand tonnes of meat
- (260 - 1200) million litres of milk

Evidence - as people emerge from poverty, consumption patterns changes

- Consume more high protein foods - derived from livestock
- Population growth, urbanization, increasing incomes
- Increase demand for livestock/ livestock products
Opportunities

- With the rapidly increasing demand
  - deficit of ~320 thousand tonnes of meat and 760 million liters of milk will result (MAL et al, 2011)
- Meeting this rapidly increasing demand for animal-source foods presents a

  “big opportunity for smallholders to earn a better living”
Smallholder Livestock Production
## Distribution of Livestock among Smallholder Households by Province in 2015

<table>
<thead>
<tr>
<th>Province</th>
<th>Cattle</th>
<th>Goats</th>
<th>Pigs</th>
<th>Sheep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>439,660</td>
<td>613,907</td>
<td>40,468</td>
<td>4,356</td>
</tr>
<tr>
<td>Copperbelt</td>
<td>276,598</td>
<td>101,297</td>
<td>52,861</td>
<td>9,132</td>
</tr>
<tr>
<td>Eastern</td>
<td>625,851</td>
<td>371,083</td>
<td>440,434</td>
<td>16,548</td>
</tr>
<tr>
<td>Luapula</td>
<td>8,136</td>
<td>173,402</td>
<td>31,878</td>
<td>6,857</td>
</tr>
<tr>
<td>Lusaka</td>
<td>112,327</td>
<td>135,381</td>
<td>27,969</td>
<td>8,410</td>
</tr>
<tr>
<td>Muchinga</td>
<td>79,185</td>
<td>128,678</td>
<td>52,669</td>
<td>2,244</td>
</tr>
<tr>
<td>Northern</td>
<td>44,586</td>
<td>130,095</td>
<td>58,174</td>
<td>1,536</td>
</tr>
<tr>
<td>North western</td>
<td>63,210</td>
<td>119,098</td>
<td>8,155</td>
<td>3,251</td>
</tr>
<tr>
<td>Southern</td>
<td>1,294,580</td>
<td>1,085,652</td>
<td>96,313</td>
<td>47,155</td>
</tr>
<tr>
<td>Western</td>
<td>362,538</td>
<td>27,589</td>
<td>33,409</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Indicative numbers from RALS 2015
Livestock Production Trends - National

Cattle  | Goats  | Pigs  | Sheep
---|---|---|---
2001 | 1489728 | 1179301 | 492465 | 51336
2012 | 2162357 | 2073493 | 942349 | 49063
2015 | 3306676 | 2886187 | 842334 | 99492


NEED LIVESTOCK CENSUS
Cattle Production

% of smallholder households producing cattle

Source: PHS 2013/14
Goat Production

% of smallholder households producing goats

Source: PHS 2013/14
Sheep Production

% of smallholder households producing sheep

Source: PHS 2013/14
Pigs Production

% of smallholder households producing pigs

Source: PHS 2013/14
Village Chicken Production

% of smallholder households producing village chicken

Source: PHS 2013/14
Average head size

Source: PHS 2013/14
Challenges to Livestock Production
East Coast Fever status in Zambia

Source: Mwacalimba and Makungu, (2014)
## I. High Livestock Mortality Rates

Livestock mortality rates (per 1000) by province 2013/14

<table>
<thead>
<tr>
<th>Province</th>
<th>Cattle</th>
<th>Goats</th>
<th>Pigs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>279</td>
<td>111</td>
<td>78</td>
</tr>
<tr>
<td>Copperbelt</td>
<td>80</td>
<td>98</td>
<td>74</td>
</tr>
<tr>
<td>Eastern</td>
<td>83</td>
<td>48</td>
<td>390</td>
</tr>
<tr>
<td>Luapula</td>
<td>15</td>
<td>83</td>
<td>24</td>
</tr>
<tr>
<td>Lusaka</td>
<td>148</td>
<td>59</td>
<td>29</td>
</tr>
<tr>
<td>Muchinga</td>
<td>88</td>
<td>99</td>
<td>338</td>
</tr>
<tr>
<td>Northern</td>
<td>57</td>
<td>123</td>
<td>198</td>
</tr>
<tr>
<td>NorthWestern</td>
<td>38</td>
<td>74</td>
<td>111</td>
</tr>
<tr>
<td><strong>Southern</strong></td>
<td><strong>93</strong></td>
<td><strong>126</strong></td>
<td><strong>52</strong></td>
</tr>
<tr>
<td><strong>Western</strong></td>
<td><strong>174</strong></td>
<td><strong>166</strong></td>
<td><strong>266</strong></td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td><strong>127</strong></td>
<td><strong>100</strong></td>
<td><strong>259</strong></td>
</tr>
</tbody>
</table>

Source: RALS (2012)
II. Livestock Diseases Prevalence

Smallholder farm households reporting that their animals were diseased

- Cattle
- Goats
- Pigs
- Sheep
- Village Chickens

Source: RALS (2015)
Southern Province: Extent and Methods of Disease Control

- Cattle: 90% treated with veterinary drugs, 10% traditional medicines, 5% not treated.
- Goats: 70% treated with veterinary drugs, 30% traditional medicines, 5% not treated.
- Pigs: 80% treated with veterinary drugs, 20% traditional medicines, 5% not treated.
- Village Chicken: 60% treated with veterinary drugs, 40% traditional medicines, 10% not treated.
Western Province: Extent and Methods of Disease Control

- **Cattle**
  - Veterinary drugs: 100%
  - Traditional Medicines: 0%
  - Not treated: 0%

- **Goats**
  - Veterinary drugs: 60%
  - Traditional Medicines: 20%
  - Not treated: 20%

- **Pigs**
  - Veterinary drugs: 80%
  - Traditional Medicines: 0%
  - Not treated: 20%

- **Village Chicken**
  - Veterinary drugs: 0%
  - Traditional Medicines: 40%
  - Not treated: 60%
Sources of Veterinary Medicine for Southern and Western

<table>
<thead>
<tr>
<th>Source</th>
<th>Southern</th>
<th>Western</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veterinary department</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Paravets</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Fellow Farmer</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>Livestock Service Center</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Agro-dealer/private retail firm</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>Other source</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>
## III. Distance to Livestock Services

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agro-dealer</td>
<td>33.07</td>
<td>18.00</td>
</tr>
<tr>
<td>Agricultural camp / block office</td>
<td>17.06</td>
<td>7.00</td>
</tr>
<tr>
<td>Livestock service center</td>
<td>44.55</td>
<td>41.00</td>
</tr>
<tr>
<td>Seller of veterinary products</td>
<td>43.83</td>
<td>40.00</td>
</tr>
<tr>
<td>Dip tank</td>
<td>24.96</td>
<td>12.00</td>
</tr>
</tbody>
</table>

Source: RALS (2012)
## V. Market Participation at National level, 2012

<table>
<thead>
<tr>
<th></th>
<th>Cattle</th>
<th>Goats</th>
<th>Pigs</th>
<th>Village chickens</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percent of HHs selling</strong></td>
<td>16.4%</td>
<td>37.2%</td>
<td>37.6%</td>
<td>44.4%</td>
</tr>
<tr>
<td><strong>Average number owned</strong></td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td><strong>Average number sold</strong></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td><strong>Average price (ZMK)</strong></td>
<td>1,486</td>
<td>115</td>
<td>187</td>
<td>19</td>
</tr>
</tbody>
</table>

Source: RALS (2012)
Policy Options
Policy Options to Reduce Livestock Mortality and Disease Prevalence

Encourage farmers to use veterinary drugs and vaccines through:

• Livestock vaccination campaign
• Improve availability of veterinary drugs (esp. vaccines)
• Through flexible electronic input voucher
• Stocking up para-vet kits

Strengthen the vet. extension service delivery:

• Improve training for vet assistant officers/para-vets
Policy Options to Increase Production

**Effective breeding programs**
- Rehabilitate the existing breeding centres-to fully operational
- Promoting cross breeding to enhance the fertility rate and improve productivity
- Timing conception –parturition to correspond with pasture availability

**Restocking program**
- But should be cautious of importing animals from disease infested areas
Policy Options to Increase Access to Livestock Services

Training /deploy more veterinary assistants

Construction of new and rehabilitation of existing community dip tanks

Encourage private participation
  • Promote agro dealer business development strategies that include vet extension services
Ultimately, effective implementation of the suggested policy options will require:

- Sustained funding from both public and private sector
- Realignment of spending priorities within the agric. sector
- Increasing the budget allocation/actual release to livestock sector
- Timely release of funds
THANK YOU