Livestock landscape in Zambia: key facts and issues

Thelma Namonje-Kapembwa
Presented at the
Northern Province Outreach Meeting,
Kasama, 8th June, 2016
Presentation Outline

1. Overview of livestock sector in Zambia
2. Key Facts
3. Challenges
4. Policy Options
Raising Incomes

GDP per capita (constant 2005 US$)

- Zambia
- Sub-Saharan Africa (developing only)

## Changing consumption patterns

The table below shows the changes in the percentage of food expenditure on different categories from 1996 to 2010.

<table>
<thead>
<tr>
<th></th>
<th>Beef</th>
<th>Poultry</th>
<th>Eggs</th>
<th>Aquatic products (Fish)</th>
<th>Other meat</th>
<th>Meat, milk, eggs &amp; fish</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>6.0</td>
<td>4.6</td>
<td>1.4</td>
<td>11.5</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>1998</td>
<td>3.3</td>
<td>4.6</td>
<td>1.4</td>
<td>9.7</td>
<td>4.5</td>
<td>26</td>
</tr>
<tr>
<td>2010</td>
<td>3.0</td>
<td>6.8</td>
<td>1.7</td>
<td>11.5</td>
<td>3.0</td>
<td>28</td>
</tr>
</tbody>
</table>

Note: The graph visually represents the data above.
Livestock Revolution

Livestock revolution taking place

• Population growth, urbanization, increasing incomes
• Increase demand for livestock/livestock products

Evidence - as people emerge from poverty, consumption patterns changes

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

• Consume more high protein foods - derived from Fish, livestock and livestock products.
Livestock Production Opportunities by Province

Source: Ministry of Fisheries and Livestock
# Livestock Production Trends - National

<table>
<thead>
<tr>
<th></th>
<th>Cattle</th>
<th>Goats</th>
<th>Pigs</th>
<th>Sheep</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>1489728</td>
<td>1179301</td>
<td>492465</td>
<td>51336</td>
</tr>
<tr>
<td>2012</td>
<td>2162357</td>
<td>2073493</td>
<td>942349</td>
<td>49063</td>
</tr>
<tr>
<td>2015</td>
<td>3306676</td>
<td>2886187</td>
<td>842334</td>
<td>99492</td>
</tr>
</tbody>
</table>

# 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>Village Chickens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>439,660</td>
<td>613,907</td>
<td>40,468</td>
<td>2,364,137</td>
</tr>
<tr>
<td>Copperbelt</td>
<td>276,598</td>
<td>101,297</td>
<td>52,861</td>
<td>692,080</td>
</tr>
<tr>
<td>Eastern</td>
<td>625,851</td>
<td>371,083</td>
<td>440,434</td>
<td>1,756,571</td>
</tr>
<tr>
<td>Luapula</td>
<td>8,136</td>
<td>173,402</td>
<td>31,878</td>
<td>862,087</td>
</tr>
<tr>
<td>Lusaka</td>
<td>112,327</td>
<td>135,381</td>
<td>27,969</td>
<td>627,787</td>
</tr>
<tr>
<td>Muchinga</td>
<td>79,185</td>
<td>128,678</td>
<td>52,669</td>
<td>1,054,691</td>
</tr>
<tr>
<td>Northern</td>
<td>44,586</td>
<td>130,095</td>
<td>58,174</td>
<td>1,182,526</td>
</tr>
<tr>
<td>North western</td>
<td>63,210</td>
<td>119,098</td>
<td>8,155</td>
<td>912,256</td>
</tr>
<tr>
<td>Southern</td>
<td>1,294,580</td>
<td>1,085,652</td>
<td>96,313</td>
<td>2,722,420</td>
</tr>
<tr>
<td>Western</td>
<td>362,538</td>
<td>27,589</td>
<td>33,409</td>
<td>790,734</td>
</tr>
<tr>
<td>National</td>
<td>3,306,671</td>
<td>2,886,182</td>
<td>842,330</td>
<td>12,965,289</td>
</tr>
</tbody>
</table>

Source: RALS 2015

Indaba Agricultural Policy Research Institute
Fact #1: Livestock Economic Contribution

- **National Level**
  - 3.2% to national GDP
  - Over 30% to agric. GDP

- **Household Income**
  - 6% to smallholder households’ income
  - Can be as high as 30% (among livestock market participants)
  - Constitutes 20% of household assets

- **Job Creation**
  - Dairy industry has potential to contribute between 50,000 and 100,000 jobs (World Bank 2011)

Indaba Agricultural Policy Research Institute
Fact #2: Multiple Roles of Livestock

- A store of value – savings bank
- An intrinsic social status representation of wealth
- A household insurance and risk mitigator
- A business investment and income generator
- A source of value addition and complement to crop farming – labor, manure,
- A critical source of food and income generation for families
- Animal traction for power and transport
Fact #3 Land Constraint

Many smallholder households are land constrained

- 66.5% cultivate less than 2 ha of land
- Opportunities for income generation from traditional field crops are limited and declining.
- Farmers can leverage their existing investments in livestock to take advantage of emerging opportunities.
- The ability of small livestock (e.g. goats) to utilize a broad range of feed resources and adapt to marginal conditions presents an opportunity for resource-poor rural households to engage in livestock production.
Feed lots
Fact #4: Low Market Participation

Most smallholder farmers do not participate in the livestock market and for those who participate, the size of the transaction has been found to be very small.

The production system is not adequately market-oriented and births are more important than purchase from the market in building and maintain the herd size and flocks.

Low market participation is prevalent among households with an alternative source of livelihoods and those with low herd sizes.
## Market Participation at National level, 2015

<table>
<thead>
<tr>
<th></th>
<th>Cattle</th>
<th>Goats</th>
<th>Pigs</th>
<th>Village chickens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of HHs selling</td>
<td>16.9%</td>
<td>33.2%</td>
<td>32.1%</td>
<td>36.1%</td>
</tr>
<tr>
<td>Average number owned</td>
<td>8</td>
<td>7</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Average number sold</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Average price (ZMK)</td>
<td>2,095</td>
<td>170</td>
<td>276</td>
<td>27</td>
</tr>
</tbody>
</table>

Source: RALS (2012)
Livestock Inflow

Source: Lubungu, (2016)
Yet livestock budget share of the Poverty Reduction Program still remains very small.

Fact #5: Livestock is Underfunded

- FRA & FISP: 57%
- Fisheries and Livestock: 23%
- All Other programs: 20%
Challenges: Livestock Disease Prevalence

% Smallholder Households with diseased animals

- CATTLE: Northern 27.1, National 43.5
- GOATS: Northern 18, National 22.1
- PIGS: Northern 7.1, National 32.42
- VILLAGE CHICKEN: Northern 57.26, National 48.1
East Coast Fever status in Zambia

Source: Mwacalimba and Makungu, (2014)
## 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><strong>Muchinga</strong></td>
<td>88</td>
<td>99</td>
<td>338</td>
</tr>
<tr>
<td><strong>Northern</strong></td>
<td><strong>57</strong></td>
<td><strong>123</strong></td>
<td><strong>198</strong></td>
</tr>
<tr>
<td>North-Western</td>
<td>38</td>
<td>74</td>
<td>111</td>
</tr>
<tr>
<td>Southern</td>
<td>93</td>
<td>126</td>
<td>52</td>
</tr>
<tr>
<td>Western</td>
<td>174</td>
<td>166</td>
<td>266</td>
</tr>
<tr>
<td><strong>National</strong></td>
<td><strong>127</strong></td>
<td><strong>100</strong></td>
<td><strong>259</strong></td>
</tr>
</tbody>
</table>

Source: RALS (2012)
Northern Province: Methods of Disease Control

<table>
<thead>
<tr>
<th>Animal</th>
<th>Not treated</th>
<th>Veterinary drugs/vaccines</th>
<th>Traditional Medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>CATTLE</td>
<td>14%</td>
<td>81%</td>
<td>5%</td>
</tr>
<tr>
<td>GOATS</td>
<td>7%</td>
<td>85%</td>
<td>8%</td>
</tr>
<tr>
<td>PIGS</td>
<td>3%</td>
<td>97%</td>
<td>0%</td>
</tr>
</tbody>
</table>
| VILLAGE CHICKENS | 15%        | 73%                       | 10%                  | 15%
Other Challenges in livestock

- Limited availability of high quality breeding stock
- Limited availability of cheap feedstock
- Energy challenges (costs and consistent supply) for poultry production
- Limited research and extension support on livestock production
What are the Policy Options?
Reduce Livestock Mortality and Disease Prevalence

Reduce incidences of diseases
- Sensitization of farmers on diseases of national importance and management diseases
- Livestock vaccination campaign
- Encourage farmers to use flexible electronic input voucher

Strengthen the extension service delivery
- Improve training for vet assistant officers/para-vets
- Increasing participation of other key stakeholders such as NGOs, private org
- Promote community participation

Increase Access to Livestock Services
- Construction of new and rehabilitation of existing community dip tanks
- Training /deploy more veterinary assistants
- Establish and operationalize through PPPs livestock service centers
Increase production and market participation

Effective breeding programs
- Rehabilitate the existing breeding centers to fully operational
- Promoting cross breeding to enhance the fertility rate and improve productivity

Restocking program
- Undertake restocking of livestock in areas where these were wiped out by diseases

Promote market Participation
- Formation of livestock marketing groups
Final Remarks

- Ultimately successful implementation of the suggested policy will require
  - Increasing the budget allocation/actual release to livestock sector
  - Sustained funding from both public and private sector
  - Timely release of funds
THANK YOU