Improving market participation and competitiveness of communal area beef farmers in Zimbabwe’s Mashonaland East Province through better feeding and value chain initiatives.

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Need to change the conventional approach to agricultural research to Participatory Technology Development

Source: Duncan, 2011
Specific objectives of the ZimCLIFS Project

➢ To increase the productivity of SH crop-livestock households by identifying and adapting appropriate technologies and associated management practices

➢ To improve farmers’ access to resources, technologies, information and markets by characterising and strengthening crop and livestock value chains

➢ increase the skills of research and extension staff and agribusiness in the design and implementation of integrated farming systems research for development programs in Zimbabwe
ZimCLIFS project sites in Zimbabwe
Project Approach

✓ Conduct baseline survey, PRAs and identify different capability classes of farmers (typologies)
✓ Identify critical value chains (identified BEEF)
✓ Develop effective Innovation Platforms
✓ Identify constraints to production / marketing and suggested alternatives from IP stakeholders
✓ Establish farmer’s envisaged future with BEEF production
✓ Develop effective partnerships with local change agents
✓ Identify critical success factors and drivers for on-farm production
✓ Simulation modeling
Participatory learning

Who is leading development of interventions???
Participatory Learning & On-farm Technology Development

Fodder initiatives in Gwanda District

Cowpea variety selection in Goromonzi District
Using community visions to guide interventions at IP level

**Nkayi:**
crop-livestock intensification

**Gwanda:**
livestock market-led development
What has been happening at Value Chain level ??
Value Chain Analysis – Beef in Goromonzi

Goromonzi Beef Cattle value Chain

Key

- Missing link
- Existing link

Functions

- Retailing
- Wholesaler
- Collection / Broker
- Production
- Input Supply

Consumers
(Harare, Goromonzi, Murehwa, Mutoko, Hatcliff)

Butcheries
Juru, Mverechena

Supermarkets
Hotels, Restaurants
Fast Foods outlets

Abattoirs
Surrey, Koala
Montana, Carswell

Middlemen

Auction

Exports

Imports
Botswana

Financial Services

Support Services

Transport

Quality standards
Vet & Livestock Department
Police, village head

Research
CIMMYT, ILRI
DRSS

Support Services

Extension
AGRITEX, NGOs e.g.
CTDT, CADS
What is limiting SH farmers from entering the local supermarket chains?

- Poor access to market information,
- Little knowledge on marketing of livestock,
- Slow technology adoption
- Inferior infrastructure in rural areas.
- Risk evasiveness / Fear Factor
  - Poor husbandry practices
  - Neglecting niche markets

Photos supplied by A. van Royen (ICRISAT) and H. Katjuonqua (ILRI)
### Table 3: Marketing costs incurred by a farmer in UMP District who wants to sell one cow on the Harare market (EXAMPLE)

<table>
<thead>
<tr>
<th>Step</th>
<th>Department / Authority to visit</th>
<th>Purpose</th>
<th>Cost (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Police</td>
<td>Clearance form</td>
<td>free</td>
</tr>
<tr>
<td>2</td>
<td>Police and Vet Dept.</td>
<td>Transport to inspection (20-30 km radius)</td>
<td>25-00</td>
</tr>
<tr>
<td>3</td>
<td>Kraal head</td>
<td>Honoraria</td>
<td>5-00</td>
</tr>
<tr>
<td>4</td>
<td>Police, Vet, Kraal-head</td>
<td>Refreshments</td>
<td>5-00</td>
</tr>
<tr>
<td>5</td>
<td>DVS</td>
<td>Movement permit</td>
<td>10-00</td>
</tr>
<tr>
<td>6</td>
<td>RDC</td>
<td>Levy</td>
<td>7-00</td>
</tr>
<tr>
<td>7</td>
<td>Transporter</td>
<td>Produce to market (160 km)</td>
<td>50-00</td>
</tr>
<tr>
<td>8</td>
<td>Accommodation</td>
<td>Overnight stay</td>
<td>Free</td>
</tr>
</tbody>
</table>

**Minimum Cost** $102-00
What initiatives are coming from Innovation Platforms ??
Improving feed availability through forage legume technologies

1. Utilization of leys to produce supplementary feed
   - Annual / bi-annual legumes with/out CA as ley crop
   - Perrennial forage legumes e.g Siratro (*M. atropurpreum*), Silverleaf Desmodium (*D. uncinatum*) leys to provide high quality feed
2. Promotion of forage conservation

2.1 Hay production
   *Lablab purpureus*
   *Mucuna pruriens*
   *Cowpeas*

2.2 Crop residue
   *maize stover*
   *Groundnut tops*
3. Dry season feeding strategies for beef
3.1 Mixing legume-based protein supplements for beef
3.2 Improved grass hays
3.3 Improved use of crop residues

4. Marketing
4.1 Training - farming as business
4.2 Live animal grading
4.3 Linking farmer to market
4.4 Pricing and price negotiations
## Economic analysis

<table>
<thead>
<tr>
<th>Expected Sales</th>
<th>Control (Veld)</th>
<th>Mucuna</th>
<th>Lablab+ cowpea</th>
<th>Commerci al Conc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle Sale (3 per trt)</td>
<td>947.30</td>
<td>1,270.43</td>
<td>1,234.50</td>
<td>1,175.39</td>
</tr>
</tbody>
</table>

## Expenditure

<table>
<thead>
<tr>
<th></th>
<th>Control (Veld)</th>
<th>Mucuna</th>
<th>Lablab+ cowpea</th>
<th>Commerci al Conc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed</td>
<td>0.00</td>
<td>177.99</td>
<td>196.09</td>
<td>135.64</td>
</tr>
<tr>
<td>Init. Cattle Cost</td>
<td>883.35</td>
<td>798.68</td>
<td>763.53</td>
<td>816.27</td>
</tr>
<tr>
<td>Labour</td>
<td>60.00</td>
<td>20.00</td>
<td>20.00</td>
<td>20.00</td>
</tr>
<tr>
<td>Veterinary Cost</td>
<td>6.00</td>
<td>6.00</td>
<td>6.00</td>
<td>6.00</td>
</tr>
<tr>
<td>Total Cost</td>
<td>949.35</td>
<td>1002.66</td>
<td>985.62</td>
<td>977.92</td>
</tr>
</tbody>
</table>

**Gross Margin/(Loss)**

|                      | (2.06)         | 267.77 | 248.88         | 197.48           |
Key lessons learnt

1. Identify key development drivers for SH commercial beef production

2. Creating demand for research products – creating awareness of commercial opportunities by taking farmers to markets – “seeing is believing”

3. Necessary to adapt innovations to prevailing circumstances together with all VC actors.

4. Farmers learn best from other farmers – identify right “guinea-pigs” to create awareness – Lead Farmer approach.

5. Farmers need mentoring to deal with aggressive private sector markets – it’s a learning process than needs min. 8-10 years!

6. From onset, encourage farmers to use their own resources for their own development and to work in groups.

7. Important to bring local agro-business dealers quickly to IPs.
Acknowledgements

- This work is financed by ACIAR
- It contributes to the CGIAR Research Program on:
  - CRP 1.1 (Dryland Systems): -
    - SRT 2 “reduce vulnerability & manage risk”
    - SRT 3 “sustainable intensification”
  - CRP 2 (Policies, Institutions and Markets): -
    - Theme 3 “Linking SH producers to markets.
  - CRP 3.2 (SI 2 “SI &income” and 15 “x2 Mz”)
  - CRP 3.7 (Livestock & fish) – goat, Milk VC}s