Dairy value chains in Pakistan: Stakeholders’ involvement and constraints analysis

Abedullah A., Mtimet N., Mustafa Z., Ahmad A., Teufel N. and Ibrahim M.N.M.

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Outline

• Objective of the project
• Data Collection
• Factors affecting livestock production
• Availability of different types of feed
• Constraints faced by dairy farmers
• Results of scientific based intervention
• Conclusions
Objective of AIP-ILRI project in Pakistan

Increase profitability of livestock farmers through intervention and capacity building of NARS
Rapid Assessment

• Multistage sampling technique

• Divisions, districts, tehsils based on highest livestock

• 6 Villages and 12 Focus Group Discussions

• 1 male and 1 female FGD in each village

• Sample comprises 159 male and 135 female farmers

• Results based on pool data of FGDs
Tools used in FGDs

- General livelihood questionnaire with farmer
- Feed assessment with farmers
- Breed assessment with farmer
- Participatory epidemiology with farmer to prioritise animal diseases
- Value chain mapping tool with farmer
- Value chain mapping tool with input suppliers
- Value chain mapping tool with traders/retailers
- Consumer tool to identify their problems
Factors affecting livestock production

Livestock Production

Feed and Fodder
Management
Animal Health
Farmer’s distribution by water provision

![Graph showing distribution of water provision]

- 28/3R
- 67/4R
- Ahata Mukhiaan
- Noor Sar
- Cheila
- 166-JB

Frequency of water provision

Farmer’s distribution (percent)
Availability of green fodder round the year

![Bar chart showing the availability of green fodder throughout the year. The chart indicates that the availability is highest in August and lowest in May.](chart.png)
Availability of crop residues round the year

Likert scale

Availability of crop residues

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Availability of concentrates round the year

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Constraints due to poor management

• Limited provision of drinking water (only twice a day)

• Lack of awareness about balanced diet

• Extreme shortage of green forage during April to June

• Lack of information about feed for fattening

• Selection of quality semen for high milk production

• Unavailability of qualified doctors and AI services
Feed and fodder constraints

• Adulteration and high prices of concentrate feed
• Absence of law to ensure high quality concentrate feed
• No labeling of ingredients on concentrate feed bags
• Fodder can’t compete with cash crops, making fodder crop uneconomical
• High transportation cost make fodder and feed unavailable to animals
Epidemiological constraints

- Foot & mouth disease, HS, worms, Black quarters, and Mastitis
- Poor sewerage system is the major source of lice
- Lack of veterinary services at reasonable distance
- Lack of quality vaccines and medicines
- Lack of govt. veterinary hospitals
Results of Scientific based Interventions

### Increase in Milk Production - Buffalo

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Increase per animal (L/day)</th>
<th>From 5 million cows in milk (million L/day)</th>
<th>Increase in revenue at province level (million Rs./day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adlib water</td>
<td>0.250</td>
<td>1.25</td>
<td>50 (US$0.48)</td>
</tr>
<tr>
<td>Adlib water and feed</td>
<td>0.700</td>
<td>3.5</td>
<td>140 (US$1.36)</td>
</tr>
<tr>
<td>Adlib water and balanced diet</td>
<td>1.2</td>
<td>6.0</td>
<td>240 (US$2.34)</td>
</tr>
</tbody>
</table>

### Increase in Milk Production - Cattle

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Increase per animal (L/day)</th>
<th>From 5 million cows in milk (million L/day)</th>
<th>Increase in revenue at province level (million Rs./day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free access to water</td>
<td>0.3</td>
<td>0.7</td>
<td>1.2</td>
</tr>
<tr>
<td>Adlib water and feed</td>
<td>0.7</td>
<td>0.7</td>
<td>6.0</td>
</tr>
<tr>
<td>Adlib water and balanced diet</td>
<td>1.2</td>
<td>1.2</td>
<td>24.0 (US$2.34)</td>
</tr>
</tbody>
</table>
Conclusions

• Rapid assessment helps to quickly identify problems of different stake holder’s of value chain
• It is useful to introduce effective intervention to improve the efficiency of value chain-leading towards higher income of farmers
better lives through livestock

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