Marketing of Milk and Milk Products: Focus on Traditional/Informal Sector

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Issues for poverty alleviation through dairy

- What drives small scale dairy development, and can smallholders compete?
- What are implications for different milk market opportunities?
- What are implications for resource poor milk consumers?
- How do these relate to the planned interventions for dairy development?

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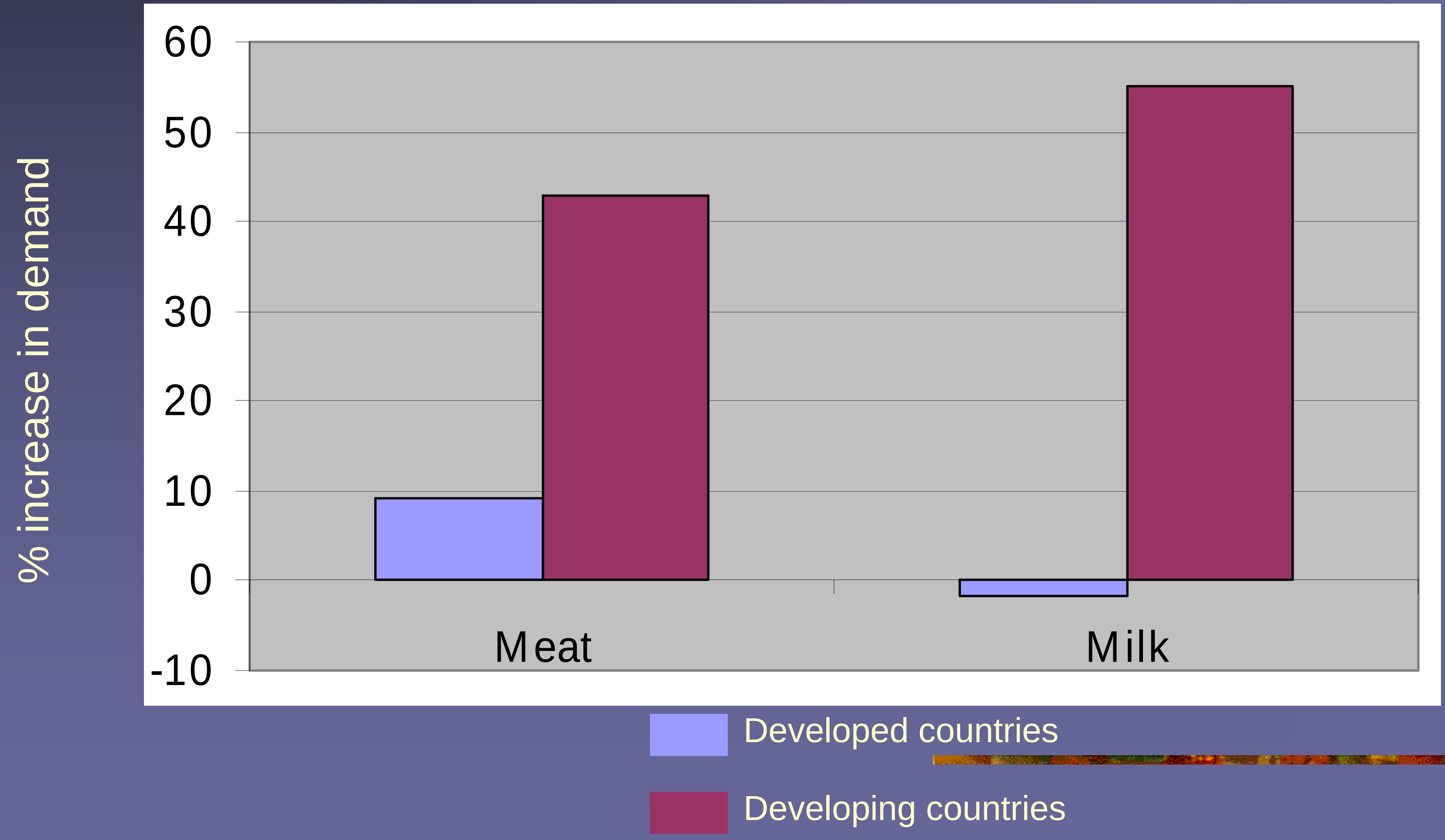
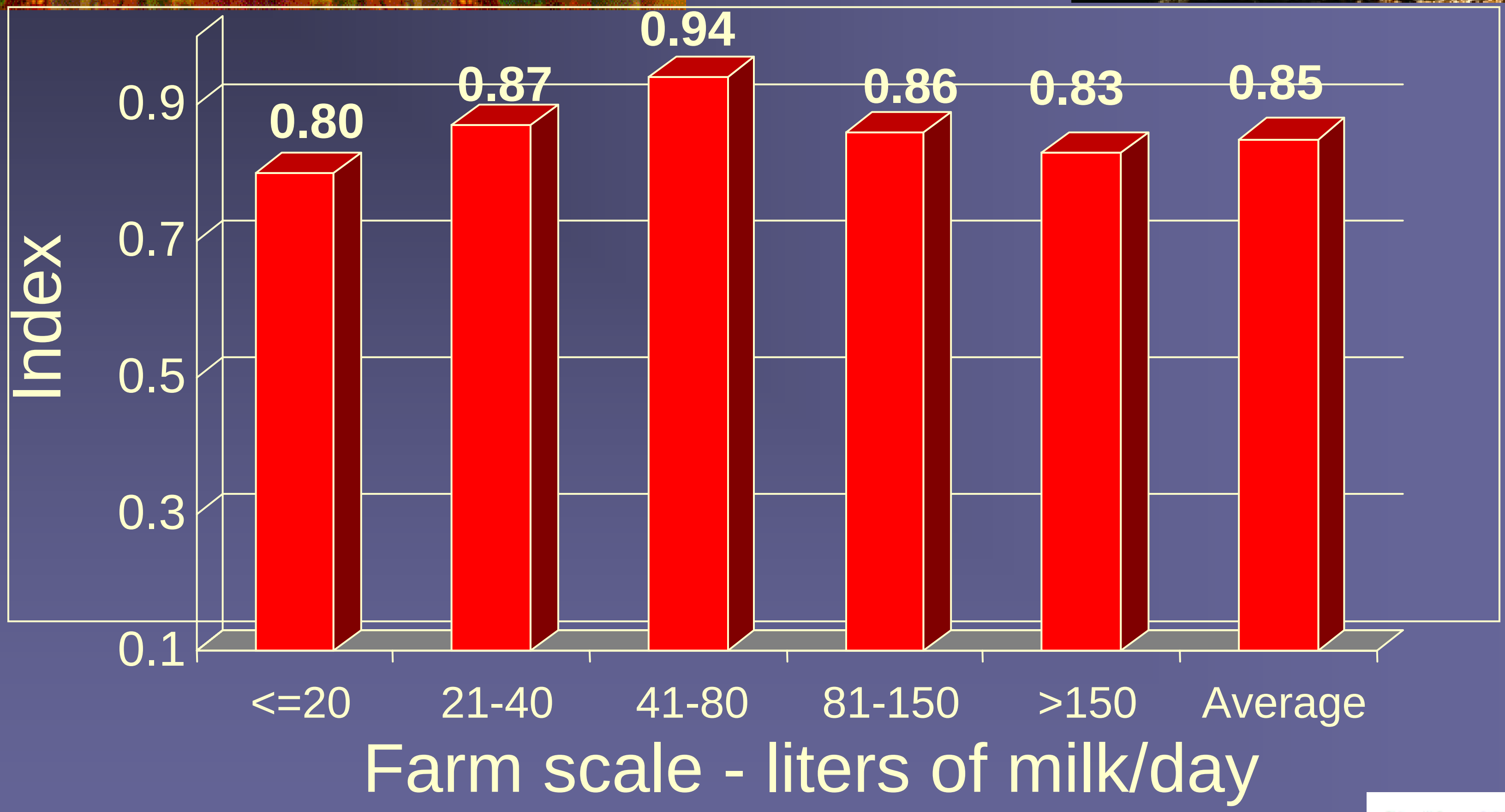
Demand is Growing: Percentage Increase in Total Demand for Livestock Products 1993 – 2020



Small farmers can compete in India:

Mean Farm Efficiency by Size group



Gujarat, Haryana, Punjab

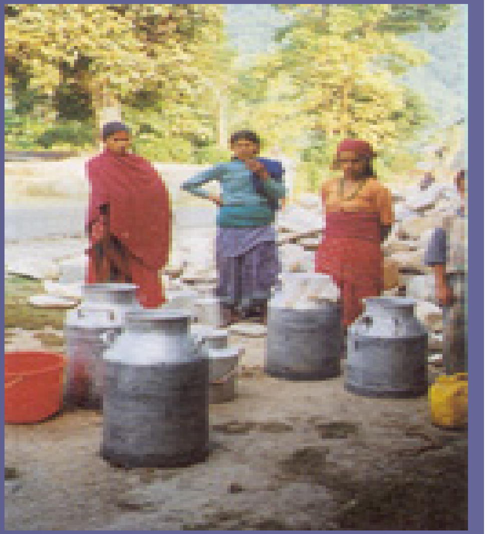
Source: Sharma and Delgado, 2003

Traditional dairy markets and actors

- Traditional/unorganised
  - Liquid, often raw, milk and traditional products
  - Sometimes formal – may pay taxes, licenses
  - Wide variety of actors, including traditional processors
  - Generation rural/urban employment
    - 2-5 jobs per 100 L daily
- Driven by consumer cost considerations, and by traditional preferences

Traditional dairy markets globally

	Traditional market share %	
S. Asia	India	85
	Sri Lanka	40
	Pakistan	98
SSA	Kenya	88
	Tanzania	98
	Uganda	90
L. America	Mexico	33
	Nicaragua	86
	Costa Rica	44
	Brazil	44



- **Primary market for both small producers and poor consumers**

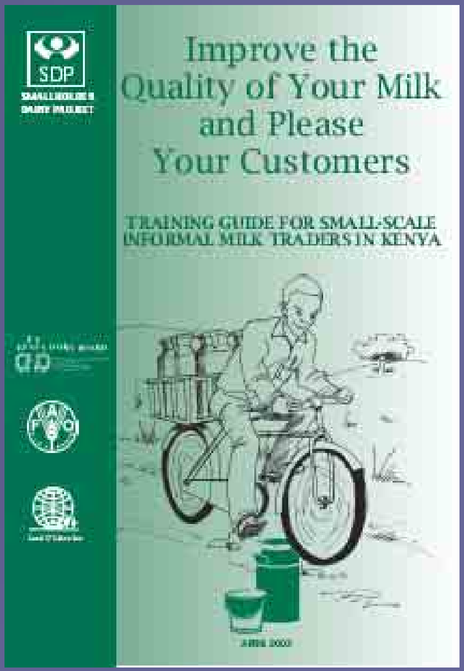
Sources: ILRI Collaborative Research & FAO E-Conference

Consumer perspective

- Resource-poor consumers
  - Both rural and urban
  - Driven strongly by need for low cost products
  - Sometimes willing to compromise quality/safety
  - Traditional preferences matter as well
- Middle-class or affluent consumers
  - More willing to pay for quality
  - Greater range of product interests
  - Traditional preferences matter for them also
  - Likely to grow with economic development

Bridging the gap

- While traditional markets dominate, one strategy is to “bridge the gap” between the traditional and organized sectors
  - Training and certification of traditional market agents to raise quality standards
  - Link them to organized sector activities
  - Means to formalize traditional market agent activities



Issues for Assam

- Slow growth in farm productivity, intensive production limited to few pockets
- Relatively low levels of dairy product consumption
- Consumption pockets (liquid and sweets)
- Apparent adulteration in traditional market
- Large imports of powder, other products

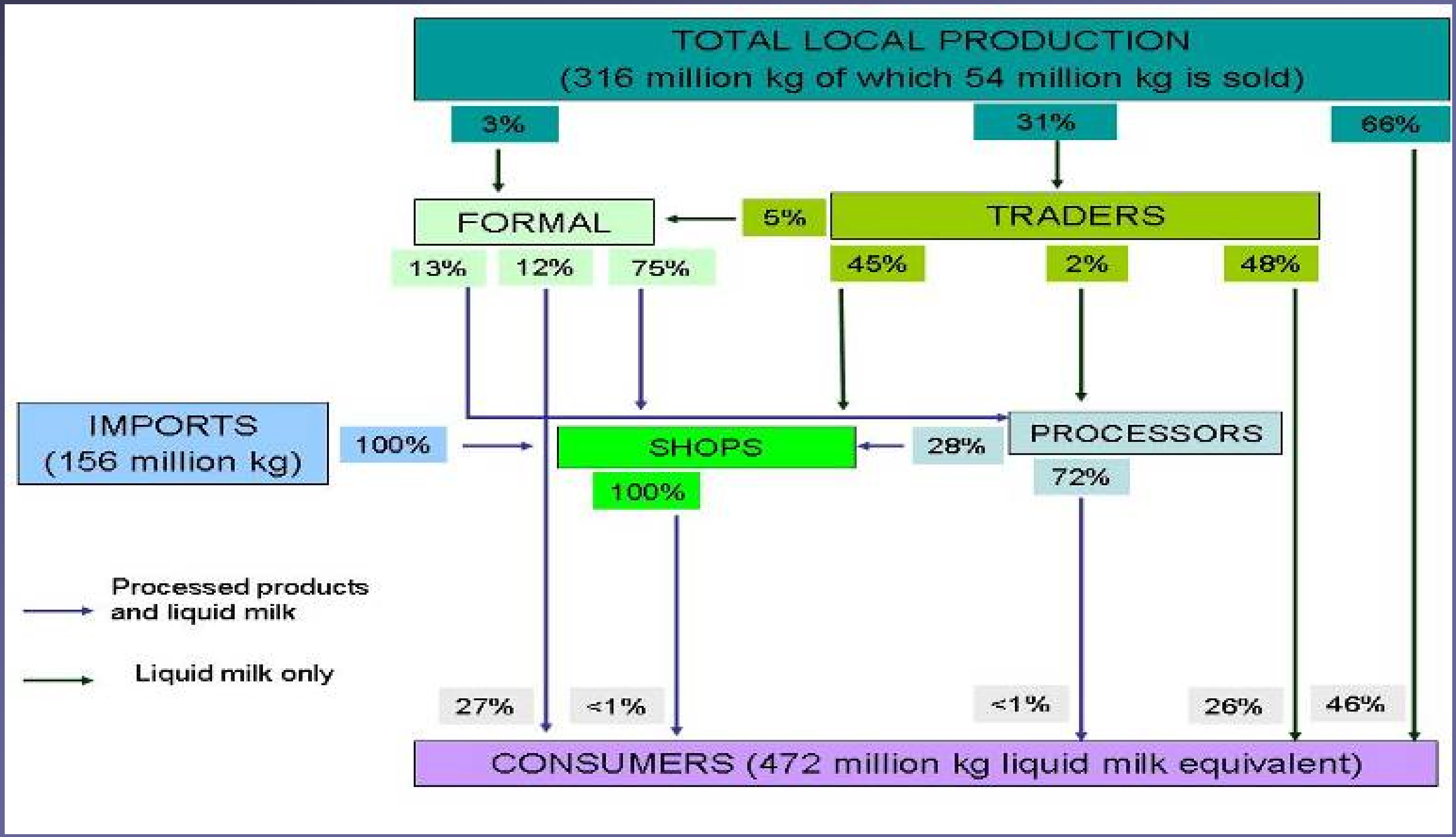
Project Components and Locations

- The study have three main components:
  - Study of Milk Producers (3000 hhs)
  - Study of Milk Consumers (1500 hhs)
  - Study of Milk Market Agents (600)
  - Quality Assessment of Milk and Milk Products
  - These were supported by Participatory Rapid Appraisals (PRAs)
- Location: was conducted in the 8 AACP project Districts:
  - Barpeta, Kamrup, Sonitpur, Nagaon, Morigaon, Jorhat, Tinsukia and Cachar, and focus pockets in other districts

An Overview of Milk and Milk Products in Assam

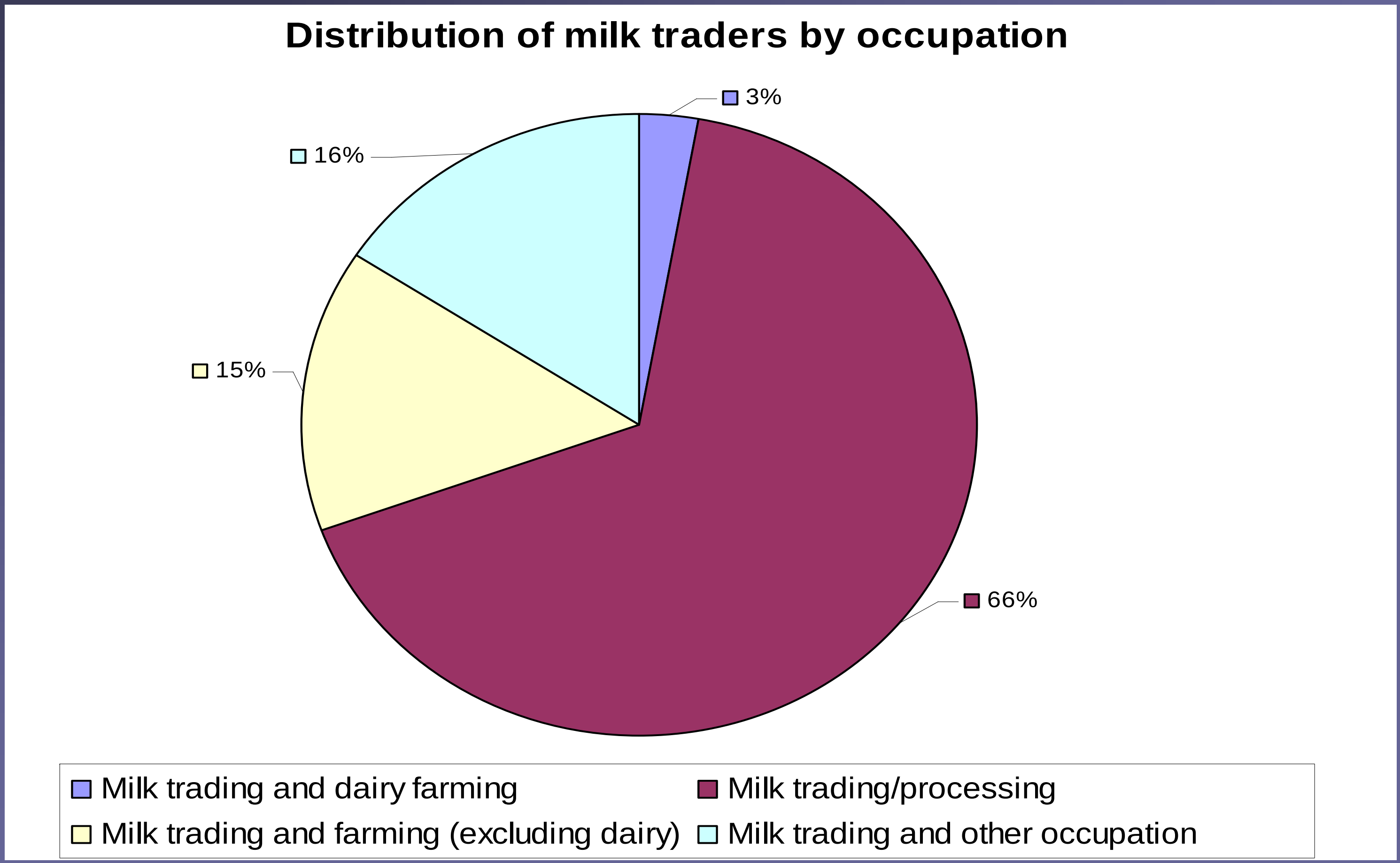
- Formal marketing of milk in Assam is relatively insignificant.
- Traditional sector accounts for about 97% of the market opportunities for farmers.
- For smallholder producers in areas with poor market access, there are likely to be no alternative market options besides the traditional market.

Milk Flow



TOTAL LOCAL PRODUCTION
(316 million kg of which 54 million kg is sold)
3%
31%
66%
FORMAL
5%
TRADERS
13%
12%
75%
45%
2%
48%
IMPORTS
(156 million kg)
100%
SHOPS
28%
PROCESSORS
100%
72%
Processed products and liquid milk
Liquid milk only
27%
<1%
<1%
26%
46%
CONSUMERS (472 million kg liquid milk equivalent)

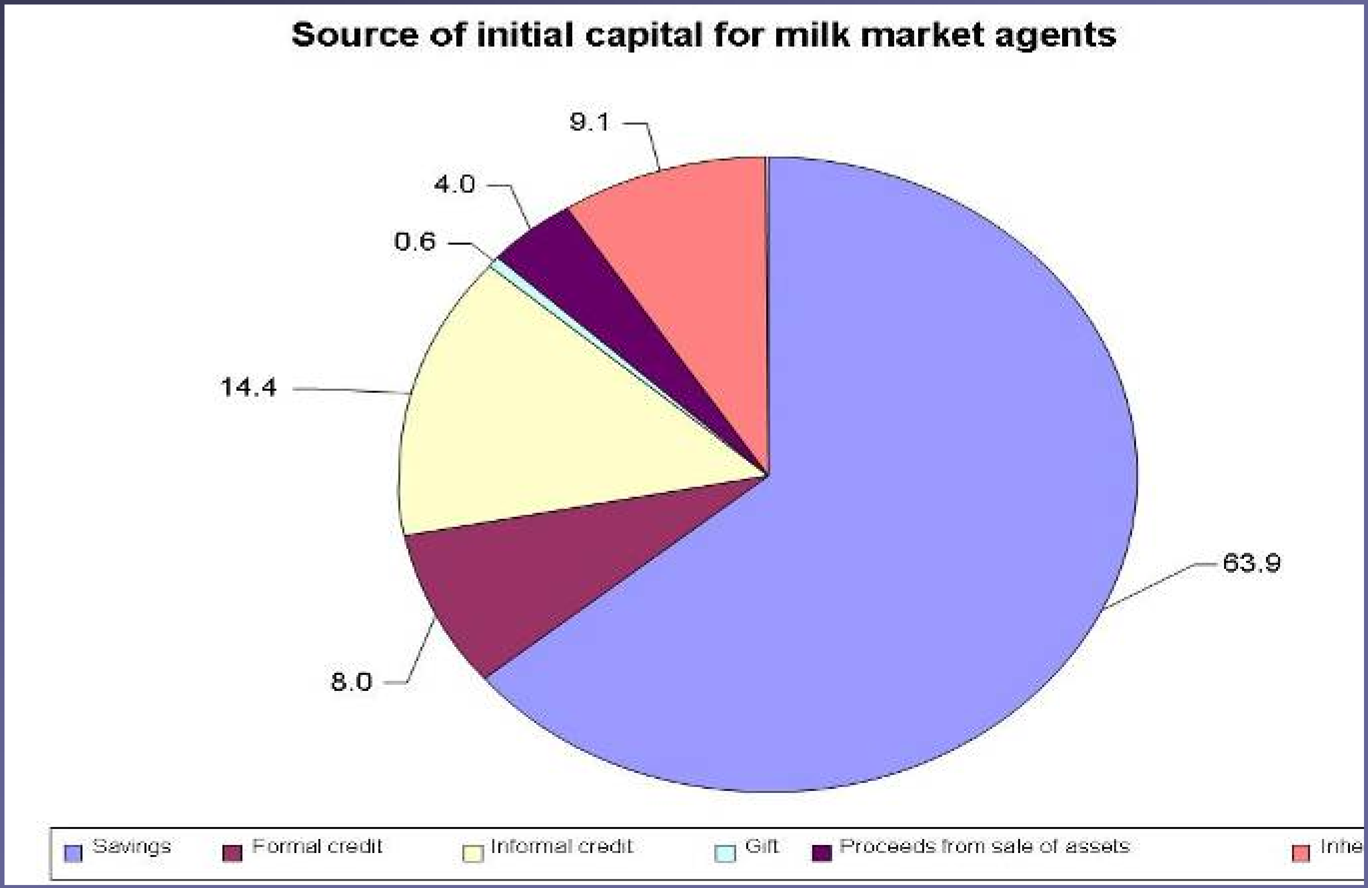
Milk Marketing and Livelihood



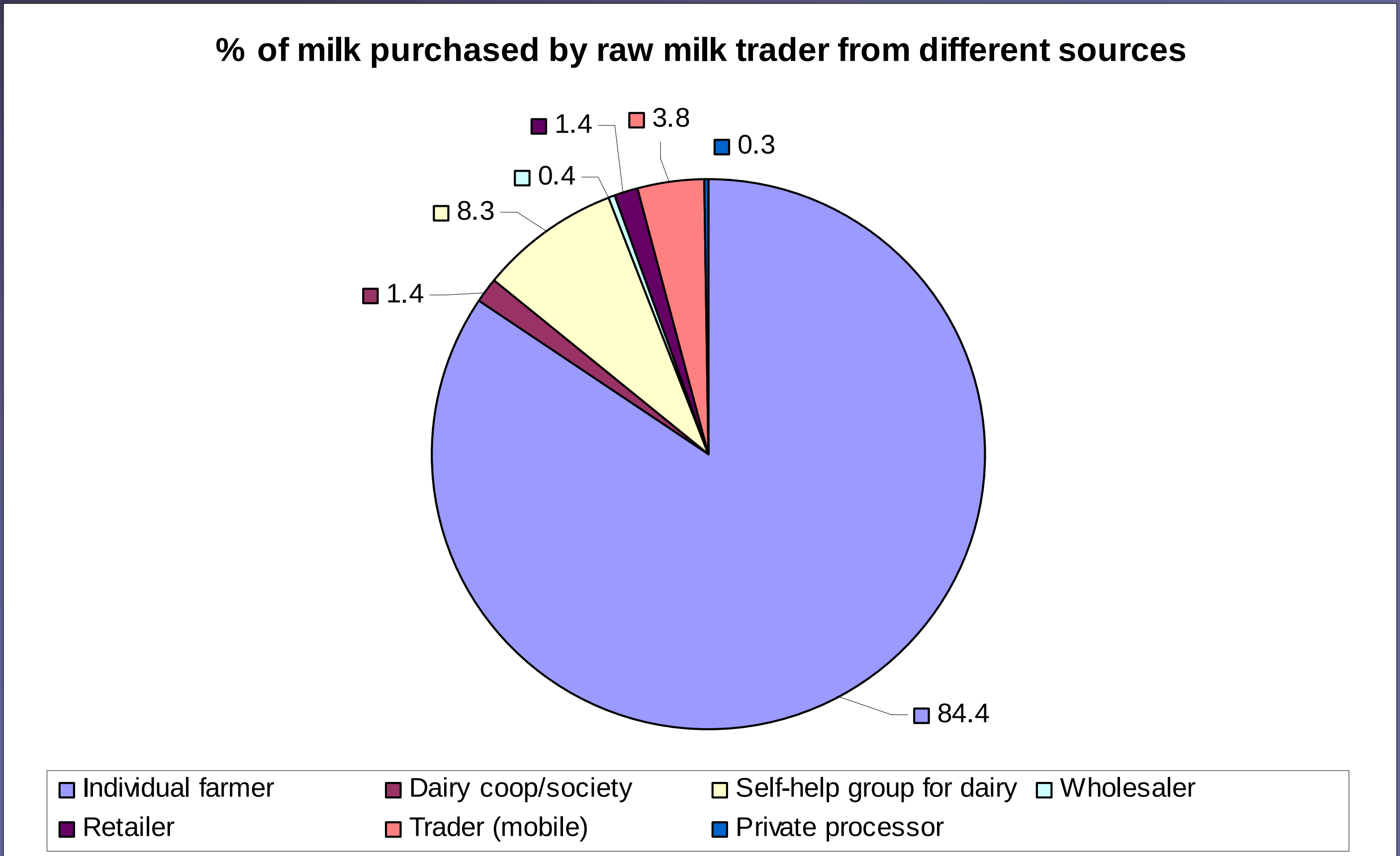
Contd.

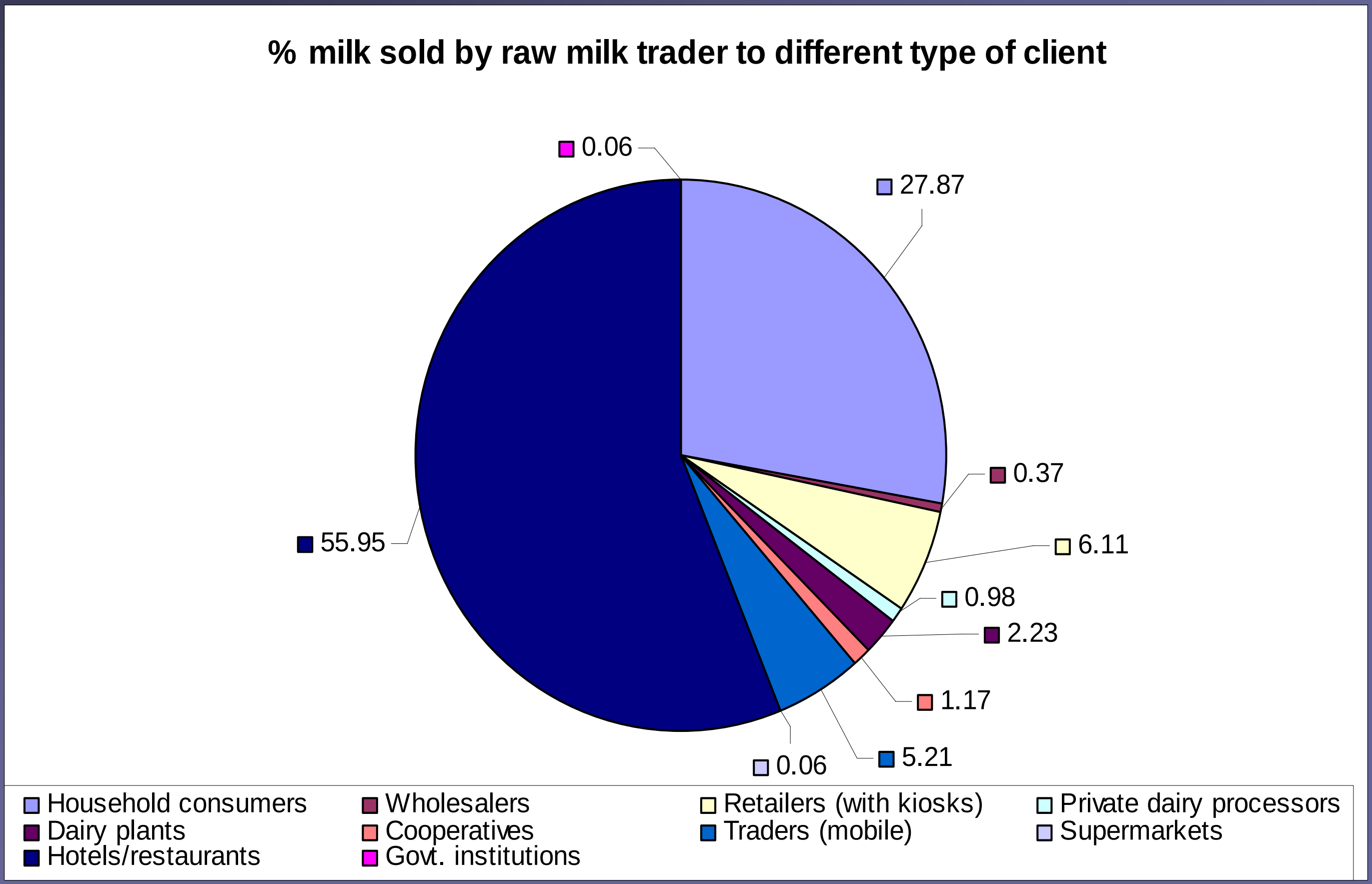
- Milk trading is the domain of male in Assam.
- Majority of the milk market agents operate as single proprietor and on a low scale.
- Very few instances of joint ventures.
- On average milk market agents are in the business for 12 years.

Sources of initial capital

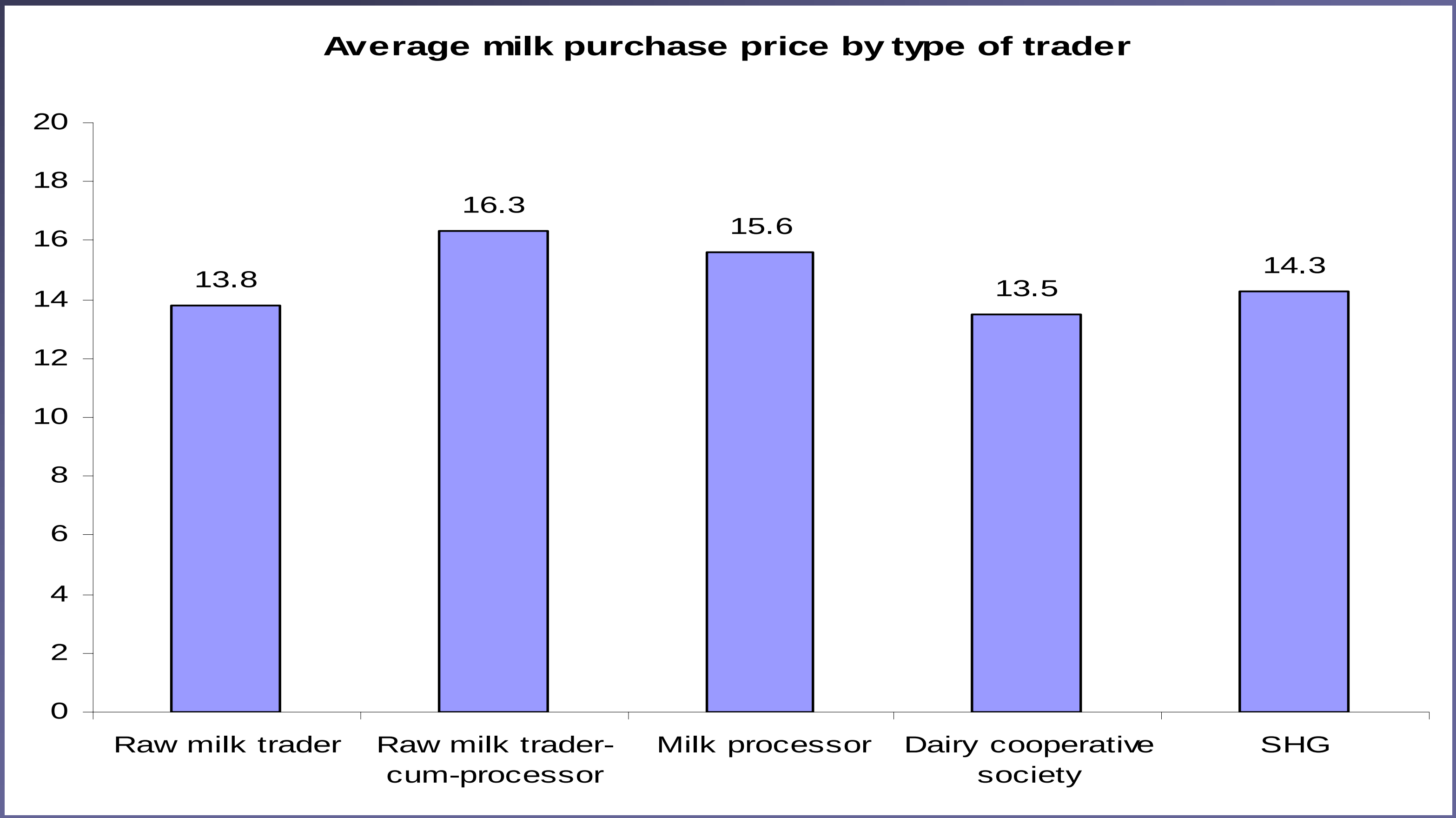


Source of milk procurement

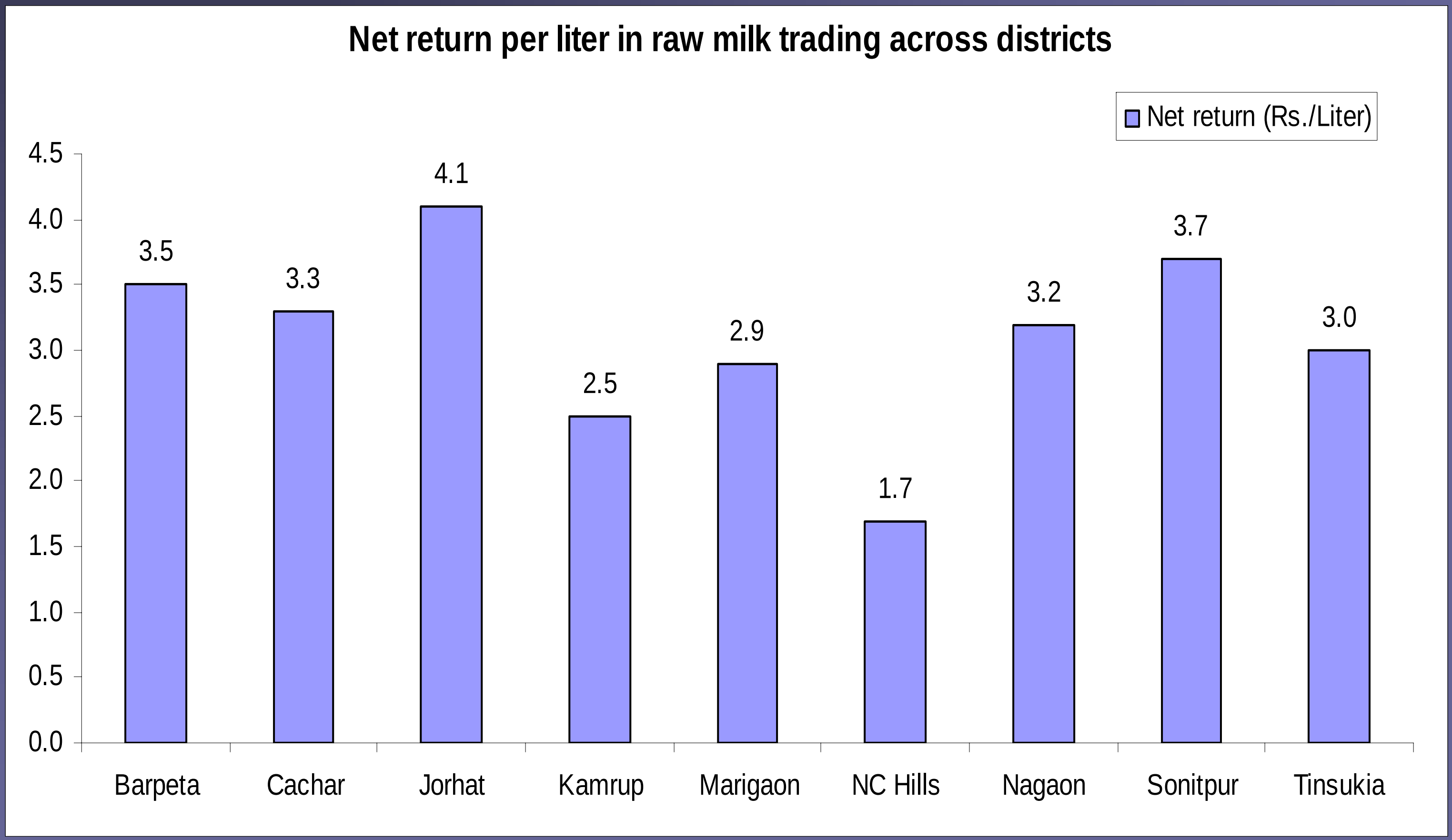




% milk sold by raw milk trader to different type of client
0.06
27.87
0.37
6.11
0.98
2.23
1.17
5.21
0.06
55.95
Household consumers
Wholesalers
Retailers (with kiosks)
Private dairy processors
Dairy plants
Cooperatives
Traders (mobile)
Supermarkets
Hotels/restaurants
Govt. institutions



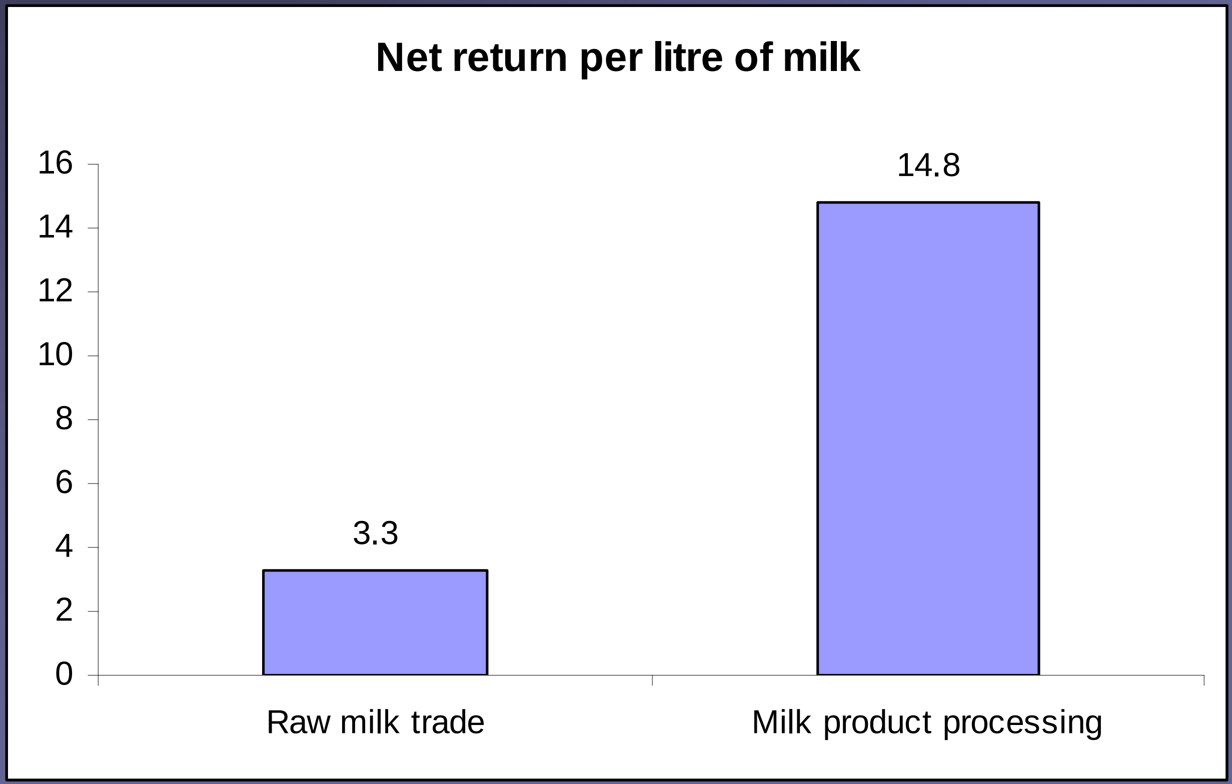
Average milk purchase price by type of trader
20
18
16
14
12
10
8
6
4
2
0
13.8
16.3
15.6
13.5
14.3
Raw milk trader
Raw milk trader-cum-processor
Milk processor
Dairy cooperative society
SHG



Net return per liter in raw milk trading across districts
Net return (Rs./Liter)
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
3.5
3.3
4.1
2.5
2.9
1.7
3.2
3.7
3.0
Barpeta
Cachar
Jorhat
Kamrup
Marigaon
NC Hills
Nagaon
Sonitpur
Tinsukia

Marketing margin across different types of traders

Type of trader	Purchase price	Marketing cost	Gross receipt	Marketing margin	Average volume of milk	Average return/day
retailer	14.20	0.45	18.28	3.63	58.6	213
wholesaler	14.98	1.38	20.21	3.85	212.7	819
milk bar	14.37	1.58	21.83	5.89	78.4	462
sweet shop	15.28	8.99	38.35	14.08	54.5	767
Total	14.68	3.24	24.82	6.90	67.8	468


Net return per litre of milk
16
14
12
10
8
6
4
2
0
3.3
14.8
Raw milk trade
Milk product processing

Milk quality

Type	*FAT (%)*	*SNF (%)*	*Added water (%)*	*Total bacteria (log)*	*Total coliforms (log)*
UHT milk	3.6	7.9	6.0	3.5	0.0
Pasteurised	3.0	8.0	4.0	5.5	3.5
Raw	3.1	6.6	20.5	6.1	4.1

Quality of milk at point of consumption

- All raw milk was of acceptable overall bacteriological quality (total plate counts) at the point of consumption. The majority of samples (75%) were of good or excellent quality.
- However, coliform quality was not good: only half the samples were of acceptable quality.
- Nearly all milk had some additional water at the point of consumption, and in more than half the chains the amount was sufficiently high to indicate deliberate addition (>10%).

Issues emerged

- Confirmed the predominance of traditional or informal dairy product market agents in Assam
- They are the key link between producers and consumers, and focus nearly exclusively on local milk products.
- Majority of traditional traders are small scale handling less than 60 litres per day, have been in business for an average 12 years.
- Majority of them rely solely on their dairy market activities for their income. This implies important small scale employment aspects along the dairy value chain.

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Implications

- Very few traders have received any training, in spite of the large and dominant role played by them.
- Average returns to labour in traditional milk processing is significantly higher than that in raw milk trading. This implies strong value addition in traditional processing.
- Access to capital seem to be a constraint to scaling up of milk trading and also to entry into the higher value processing enterprises.
- Some facilities for linking small scale traders into reliable, economic credit services would likely increase the scale and efficiency of activity in the local milk and dairy product market.

Conclusions and policy implications

- How to improve the performance of milk market, both formal and traditional?

Conclusions and policy implications

- Issue: Support to improving the milk quality and product mix in formal milk processing---Nearly half of urban consumers and about one-fourth of rural consumers are not satisfied with the level of hygiene and quality of milk available in the market.
- Action: Design and implement a program of support and training to local dairy processors (private and co-operative) in product quality control and product targeting.

Conclusions and policy implications

- Issue: Variable and generally low quality and performance of traditional small-scale milk market agents--------Average water adulteration in milk 19%.

- Action: A program to address small scale traditional traditional milk market agents through a combination training in hygiene and small enterprise skills leading to certification, combined with development and enforcement of appropriate standards, can improve milk quality and market performance.

- Training+Certification+Monitoring in consultation with public regulators and stakeholders can be developed and checked.

Conclusions and policy implications

- Issue: Capturing opportunities in Traditional Value Addition (Processing)—Increasing demand for local traditional sweets.
- Action: Design and implement a program of basic training in hygiene and processing for traditional sweet and product manufacturers and vendors.

Conclusions and policy implications

Issue: Lack of clear coordination and information gathering and sharing mechanisms to support private sector investment.

Action: Invest in the resources and organizational mechanisms required to support greater information sharing and private sector investment.

Thank you for your attention

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