

Status of Milk Processing Infrastructure of Dairy Cooperatives



National Dairy Development Board

26 August 2014

Growth in Milk Production & Milk Procurement by Milk Coops

No	Particulars	Unit	1980-81	1990-91	2000-01	2010-11	2013-14
1	Milk Production*	Million MT	31.6	53.9	80.6	121.8	137.6
		LKgPD	866	1477	2208	3337	3770
2	Milk Procurement by Cooperatives#	LKgPD	26	97	165	274	361
3	Procurement as share of production	%	3	7	7	8	10
4	Milk Processing Capacities	LLPD	36	189	283	406	541
5	Ratio of processing capacity to milk procurement		1.38	1.95	1.72	1.48	1.50

* DADF's BAHS reports
NDDDB MIS Reports

Growth in Milk Processing Capacities

Particulars	Registered Processing Capacities (LLPD)		Net Increase (LLPD)
	1996	2014	
Cooperatives & Government	200	541	341
Private* <i>(as on March 2011)</i>	245	689	444
Total	445	1230	785

* Most private capacities have been registered in :

UP	130 LLPD	AP	46 LLPD
Maharashtra	117 LLPD	Punjab	35 LLPD
Tamil Nadu	52 LLPD	MP	34 LLPD
		Rajasthan	26 LLPD

Ageing analysis of processing capacity of cooperatives

Particulars		No. of Plants	Capacity (LLPD)
Dairy plants older than 20 years	No expansion/Expanded more than 10 yrs	68	129
	Expansion during last 5-10 yrs	12	19
	Expansion within last 5 yrs	50	228
	Sub-Total	130	376
10-20 years old dairy plants	No expansion/Expanded more than 10 yrs	34	42
	Expansion during last 5-10 yrs	0	0
	Expansion within last 5 yrs	7	16
	Sub-Total	41	58
5-10 years old dairy plants	No Expansion	8	6
	Expanded in last 5 yrs	4	3
	Sub-Total	12	9
Dairy plants set up within last 5 years	No Expansion	28	99
	Expanded in last 3 yrs	0	0
	Sub-Total	28	99
Grand Total		211	542

[Detailed summary of ageing analysis of processing capacity](#)

Need for augmenting processing infrastructure

- ◆ Continue to meet the ever improving standards of hygiene and sanitary practices as prescribed by FSSAI and comply with ISO 22000
- ◆ To handle and process milk in an environmentally sustainable manner and comply with ISO 14000
- ◆ About 52% of plants (aggregate capacity of about 177 LLPD) have never been expanded/expanded more than 10 years ago
- ◆ Considering “business as usual” milk procurement is likely to grow at 7% by 2021-22 to 640 LKgPD
- ◆ Additional processing capacity of about 240 LLPD and drying capacity of about 780 MTPD may be required to handle the projected milk procurement
- ◆ Estimated additional capacity for cattle feed manufacturing by 2021-22 is about 5350 MTPD

Technological Advancement in Milk Processing

Advantages:

- ◆ Controlled process parameters - consistent product quality
- ◆ Reduced handling losses
- ◆ Energy efficiency and lower water consumption
- ◆ Automated CIP - low chemical consumption
- ◆ Automated pouch packing - reduced packing/product losses

Contd...

Challenges:

- ◆ Inadequate space / time for plant shut down
- ◆ Maintain hygiene in running plant during modernization/renovation
- ◆ Power fluctuation - improper functioning of new state-of-art machineries
- ◆ Resistance to change / shortage of qualified manpower

Benefits from Technological advancement

- ◆ At least 30% improvement in energy consumption
- ◆ Water consumption reduces from about 2 litre to about 1 litre per litre of milk handled
- ◆ Milk solid losses reduces from about 2% to about 1%
- ◆ Such benefits give a payback period of about 5 years

Need for augmentation of processing infrastructure

Particulars	2013-14	2016-17	2021-22
Milk Production (LKgPD)	3770	4247	5479
Milk Procurement (LKgPD)	361	443	640
Procurement as share of milk production	10%	10%	12%

Projected requirement of processing infrastructure

Particulars	2013-14	2016-17	2021-22
Processing Capacity (LLPD)	541	640	780
Drying Capacity (MTPD)	1362	1682	2142
Ratio of processing capacity to milk procurement	1.50	1.44	1.22
Cattle Feed Capacity (MTPD)	11145	14795	17705

Way forward

- ◆ On request, NDDDB may take up study of existing cooperative dairy plants.
- ◆ Based on study, infrastructure requirement could be suggested.
- ◆ Funding requirement may be met through proposed NDP Phase II.

Thank you