



## Chapter 3

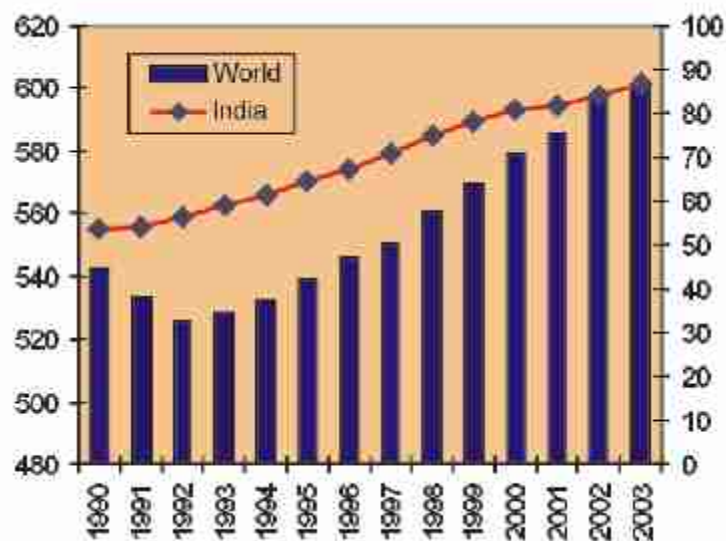
# Dairy Industry

### Outlook

India is the largest milk producer in the world. From being a milk impoverished nation to the top producer has been an arduous and almost miraculous climb. This of course must be attributed in great measure to Operation Flood and the historic Co-operative movement. Yet, it must be observed that the industry has failed to build on this bedrock and reach the paradigms set by the world milk majors.

The dairy sector is the predominant component in the overall livestock activity in the country. Milk production has increased from 72.12 million metric tonnes in 1997-98 to 88.08 million metric tonnes in 2003-04 (Fig 3.1) representing a compound annual growth (CAGR) of 3.37% p.a. Over the last one and a half decade the contribution of milk from India to the total world milk production has also increased from 9.9 % to 14.5%.

Figure 3.1 **Milk production in India vis-a-vis World milk production (in MMT)**



Source: NDDB / National Institute of Animal Nutrition & Physiology (NIANP)



## Growth Drivers

### Potential to Consume

As a developing nation with a healthy growth in per capita income, unlike in the developed world, there is an increasing acceptance of milk and milk products in India. This potential can only increase with the rise in disposable income levels, increasing urbanisation and distribution levels.

### Strong Co-operative Effort

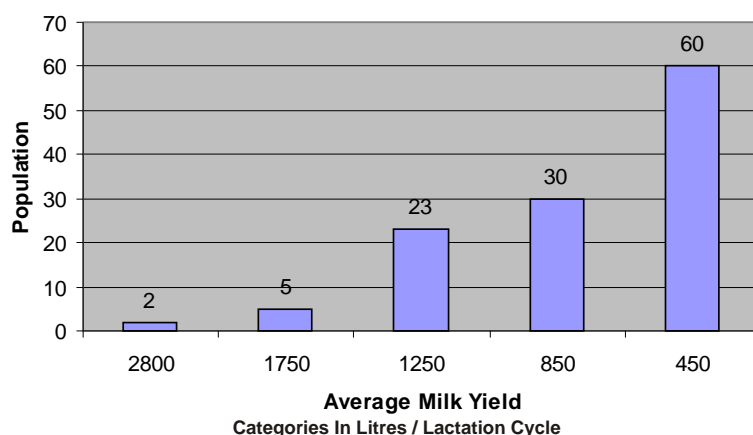
With support from the government, the Co-operative movement is gaining strength in the country. This has led to better prices for farmers and a more organised method of collection, processing and distribution. Many private sector players have now entered the business and their efforts will only help to market, distribute and popularise the consumption of milk and milk products.

## Growth Inhibitors

### Low Genetic Potential

While there has been great emphasis in recent times on enhancing the genetic potential of the Indian milch animal, much progress remains to be made (Fig 3.2)

Figure 3.2 **Female Bovine Potential (in million heads)**



Source: Livestock Census 2003



### Low Milk Yield

This in turn leads to the next major problem low milk yield. Despite being the largest milk producer, the country's average milk yield falls far below the world average. The following table (Fig 3.3) shows a comparison between some of the world's most productive countries and ours.

This statistic can be interpreted and justified in many ways. But the net result is that the country expends its precious fodder resources in maintaining and feeding unproductive cattle at a huge manpower cost. This is one of the prime reasons for the low returns to dairy farmers in the country.

*Table 3.1 A Comparison of World Milk Yields*

Country	Milk Yield (Litres)
USA	7002
UK	5417
New Zealand	5348
India	795
World Average	2021

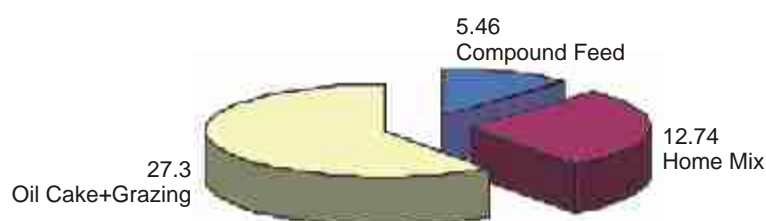
*Source: India Infoline Sector Report (2003)*

### Feeding Practices

The vast majority of the cattle population is grazed and fed on agricultural residues and home mixed ingredients or concentrates.

Industry estimates provide the following information:

*Figure 3.3 Composition of Feed Used in MMT*



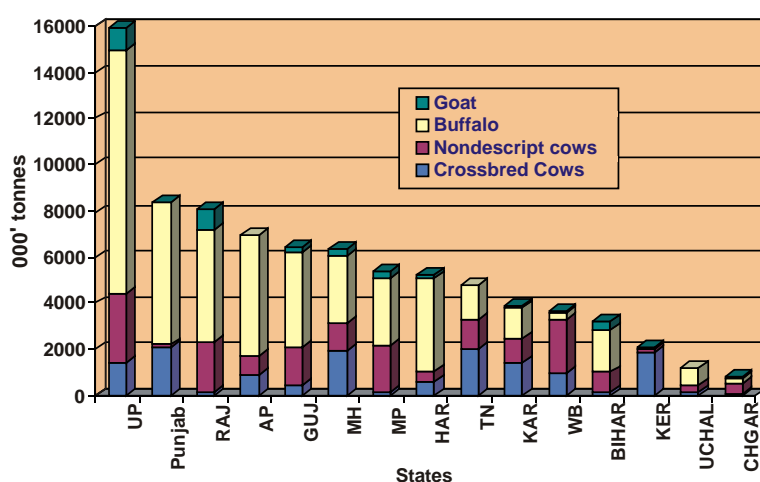
*Source: Industry Estimates*



## Trends in Milk production

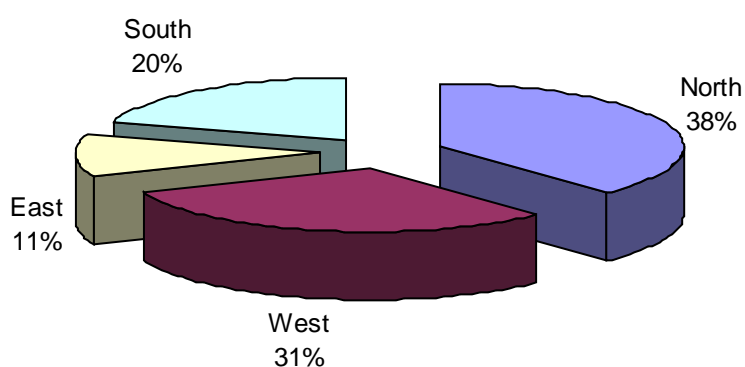
Figure 3.5 gives a picture of the milk production from different species in the major milk producing states in the country. Uttar Pradesh continues to be the largest milk producing state and Mizoram the smallest.

Figure 3.4 State wise Share of Milk production by Cows, Buffaloes and Goats 2003-04 (in MMT)



Source: NDDB / NIANP 2003

Figure 3.5 Regional Contribution To Milk Production



Source: NDDB / NIANP 2003

Contribution from the different regions to the overall milk production is given in Fig.3.6. The Northern and Western regions account for almost 70 percent of the total milk production in the country. The contribution from the East and North East is extremely low.



## The Major Players

Dairy co-operatives account for the major share of organised milk collection and handling in the country. The major dairy co-operative federations with their handling capacity is presented in Fig 3.7.

Table 3.2: Major dairy Co-operative Federations in India

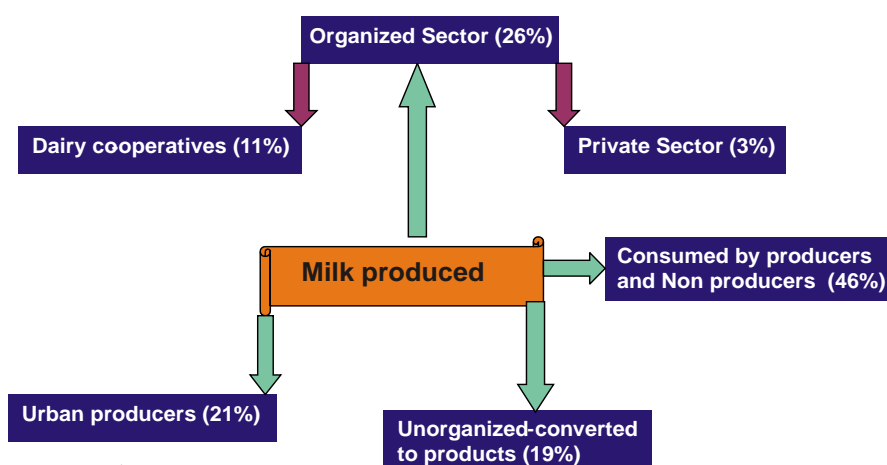
Dairy Federation	State	No. of Co-op Unions	No. of Dairy plants	Capacity (000' Its)	Brand
APDDCF	Andhra Pradesh	9	12	2437	Vijaya
COMPED	Bihar	8	8	586	Sudha
GCMMF	Gujarat	12	19	6595	Amul
HDDCF	Haryana	5	5	530	Vita
HPSCMPF	Himachal Pradesh	3	2	30	Him
KMF	Karnataka	13	15	2130	Nandiini
KCMMF	Kerala	3	3	900	Milma
Mahasangh	Maharashtra	24	28	4905	Aarey, Vikas, Mahanand
Milkfed	Punjab	11	9	1525	Verka
MPCDF	Madhya Pradesh	6	7	1030	Sneha, Sanchi
OMFED	Orissa	5	5	135	Omfed
PCDF	Uttar Pradesh	30	13	1510	Parag
RCDF	Rajasthan	16	10	1000	Saras
TCMPF	Tamil Nadu	12	15	2605	Aavin
WBCMPF	West Bengal	7	5	1510	Bhagirathi

Source: NDDB / NIANP 2003

## Utilization of milk

The pattern of milk utilization is presented in Fig 3.8. Only 26 percent of the total milk produced is being handled by the organized sector, of which, the dairy co-operative sector is the major player.

Figure 3.6 Pattern of milk utilization by different sectors



Source: NDDB / NIANP 2003



## Livestock scenario

A decline in the total cattle population has been observed over the last three livestock censuses (Fig 3.9). This is mainly due to the reduction in population of indigenous cattle. One positive aspect is the increase in the number of crossbred cattle (62% over the last 11 years).

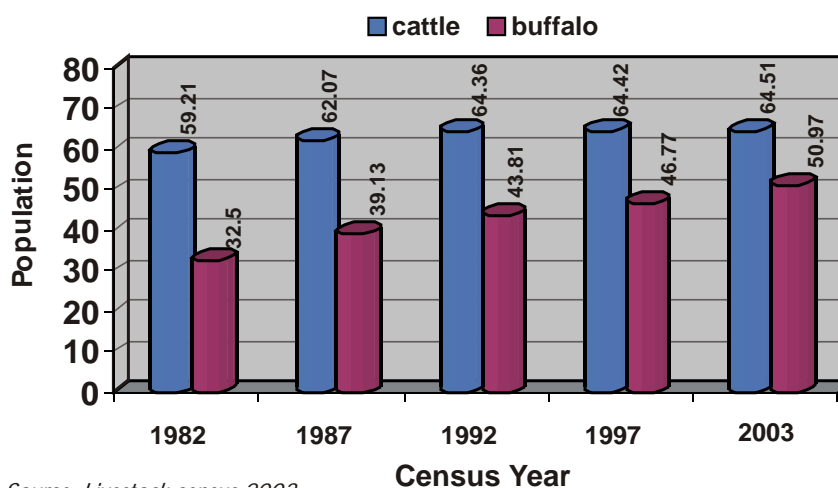
Table 3.3: **Population of cattle and buffaloes over the years (in thousands)**

Census Year	Cross bred	Indigenous cattle	Total	Buffaloes	Total Cattle + buffaloes
1992	15215	189369	204584	84206	288790
1997	20099	178782	198882	89918	288800
2003	24686	160495	185181	97922	283109

Source: Livestock census 2003

Importance of buffaloes in the Indian dairy sector is increasing as seen from the growth trend of buffalo population over the years (Fig 3.10).

Figure 3.7 **Population of adult females over the years (million heads)**



Source: Livestock census 2003

Though a declining trend is seen in the total bovine population over the years, the adult female population has shown an increasing trend (Fig.3.10) indicating the importance being given to maintaining both buffaloes and cattle for milk production.