

# Emerging Dairy Countries : The India Perspective

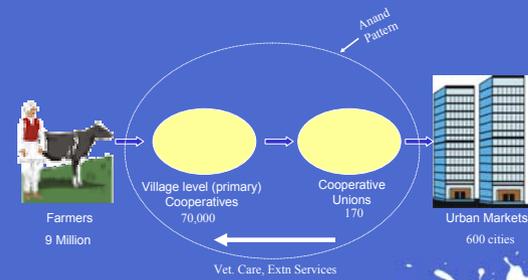
IDF World Dairy Summit, November 2004

India → Largest Milk Producer  
 CAGR 4% against world growth rate of 1.1%

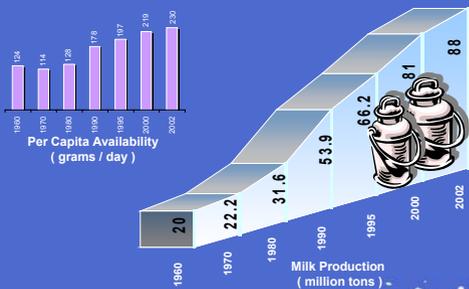
India → Largest Milk Consumer

## Operation Flood

- Phase 1 : 1970 - 81
- Phase 2 : 1981 - 85
- Phase 3 : 1985 - 96

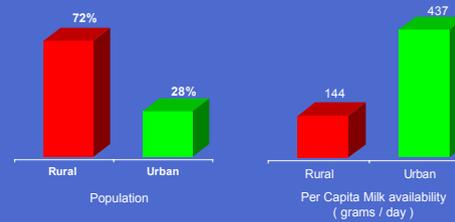


## India : Milk Production



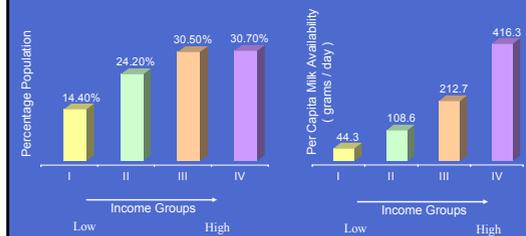
## Disparities in Milk Availability

Rural Vs Urban (2001)



## Disparities in Milk Availability

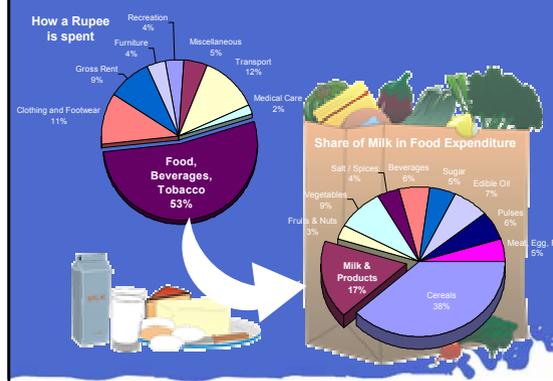
Income Groups (2001)



## Disparities in Milk Availability



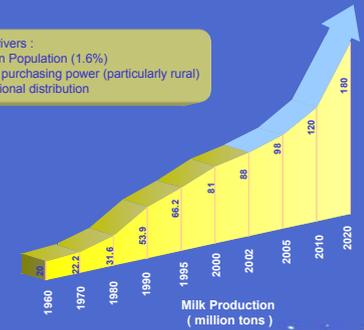
## Importance of Milk in India's Food Basket



## Milk Production / Demand - Projections

**Demand Drivers :**

- Increase in Population (1.6%)
- Growth in purchasing power (particularly rural)
- Better regional distribution



## Milk Production : Small Holder Centered Approach

- India : 60% of population is engaged in agriculture
- 70 million farm families ( 50% of rural population) involved in dairying.
- Landless / Small farmers with 1-2 milk animals account for 70% of milk production.
- Live stock holding more equitably distributed than land. The gains of the dairy sector have benefited the poorest of our rural population.
- Farmer's share of consumer price of milk > 70%
- Policy focus : Create rural employment, raise rural incomes.
- No subsidies

## Competitiveness in Milk Prices (2002)

Main Countries	Share in production %	Farmgate prices / 100 Kg (US\$)
Argentina, Belarus, Chile	2.5	< 10
Russia, Ukraine, New Zealand, Australia, Lithuania, Latvia	12.5	10-15
Poland, South Africa, Estonia	2.5	15-18.8
<b>Total</b>	<b>17.5</b>	
<b>India</b>	<b>15</b>	<b>18.9</b>
Brazil, Pakistan, China, Czech Republic, Slovakia	10	19-25
EU, USA, Mexico, Canada, Hungary, Israel, Croatia, Slovenia, Cyprus	55	25-40
Japan, Switzerland, Norway, Iceland	2.5	>40
<b>Total</b>	<b>67.5</b>	

Note : Almost 70% of world's milk is more expensive than India.

## Milk Flow – From Producer to Consumer, 2001

Dairy Animal Population	Cows	Buffaloes	Others	Total
Milk output (MI. MT)	54	41	NA	95
	36.4	45.7	2.5	84.6
	45%	52%	3%	100%

Production Sector	Rural	Urban	Total
Milk Production (MI. MT)	83	11.6	94.6
	88%	2%	100%

Consumption Sector	Rural	Urban	Total
Gross Volume (MI. MT)	39	45.8	84.6
	46%	54%	100%
Per Capita (g /day)	144	437	

Milk Utilization	Rural	Traditional	Organized	Total
Volume (MI. MT)	39	35	6	80
	40.00%	41.50%	7%	88.50%
Liquid Milk	39	23	5	67
	100%	66%	83%	88.40%
Milk Products	-	12	1	13
	-	34%	17%	51%

Milk Utilization : Liquid Milk – 80%, Products – 20%

Handling by Organized sector : 12.5%

## Meet a farmer : Gopal



Gopal and family



Their House



Their Village



Their Cows

## Gopal's Issues:

- Milk enables survival but not much more.
- To get out of poverty cycle Gopal needs
  - More animals ( herd size 4-5)
  - Increase in productivity from 1000 ltr./yr to 3000 ltr./yr.
- To achieve these ends :
  - Access to improved genetic material, feed, fodder and veterinary care.
  - Assured Market

## A Milk Processor : Dynamix Dairy Industries Ltd.

- Location 300 Km from Mumbai
- Set up to take care of surplus milk  
No pasteurized milk, only products
- Conceptualized in 1993, Commissioned in 1996
- Since early 2004, subsidiary of Schreiber Foods, USA
- Role Model for Indian Dairy Industry
- Marketing Vision :  
Products For Indian market ( Long term)  
Commodity / Product Exports ( Medium / Long term)



## Dynamix : A World Class Plant



## Dynamix : World's Leading Technologies

PROCESSING AND SYSTEMS DESIGN	VALIO ENGINEERING LTD., FINLAND.
PLC SYSTEM HARDWARE	SIEMENS, GERMANY & INDIA.
PLC SYSTEM SOFTWARE	TUCHENHAGEN, GERMANY & U.S.A.
CASEIN PLANT – PROCESS DESIGN, SOFTWARE & EQUIPMENT	1) WESTFALIA SEPARATOR A.G., GERMANY. 2) BARR & MURPHY, U.K.
ULTRAFILTRATION UNIT	MEMBRANE SYSTEMS SPECIALISTS, U.S.A.
LACTOSE PROCESS DESIGN & SOFTWARE	WHEY SYSTEM, INC., U.S.A.
NATURAL & PROCESS CHEESE PLANT -DESIGN AND EQUIPMENT	1) DAMROW, U.S.A. 2) SCHREIBER INTERNATIONAL INC., U.S.A.
UHT PLANT DESIGN AND EQUIPMENT	TETRA PAK, SWEDEN & ALFA LAVAL, INDIA

## Dynamix : Wide Product Range

### - Commodities :

Skimmed Milk Powder, Full Cream Milk Powder, Casein, Whey Protein Concentrates, Whey Powder, Edible / Pharmaceutical Lactose, Milk Protein Concentrates

### - Consumer Products :

Cheddar Cheese, Processed Cheese, Mozzarella Cheese, Dairy Whitener, Butter, Ghee, UHT Milk, Flavored Milk, Yogurt, Drinking Yogurt, Cream, Fruit Juices & Drinks, Iced Tea



## Dynamix : Marketing Partners & Preferred Supply Relationships



## Dynamix : Export Destinations



### COUNTRIES EXPORTED TO :

U.S.A. CHINA SAUDI ARABIA U.A.E. JAPAN ALGERIA YEMEN SRI LANKA MAURITANIA LEBANON  
TOGO NIGERIA TURKEY SINGAPORE BANGLADESH MOROCCO SYRIA INDONESIA  
GHANA MALAYSIA EGYPT OMAN MAURITIUS MYANMAR MADAGASCAR

## Dynamix : Milk Collection System



COW



BULK COOLING STATION



FACTORY



TANKER

## Dynamix : Concerns of a milk processor

### Milk Production

- Meet aspirations of a hundred thousand farmers by providing an enduring market for their milk.
- Assist farmers in productivity improvement, hygienic milk production and animal healthcare.

### Domestic Market

- Technology for indigenous products.
- Nurture investments in processing till demand builds up.

### Exports

- Market Access. Fair implementation of W.T.O.

## Milk : An answer for many problems

### Producer

- Small / Marginal farmer income
- Overall Rural income

### Processor

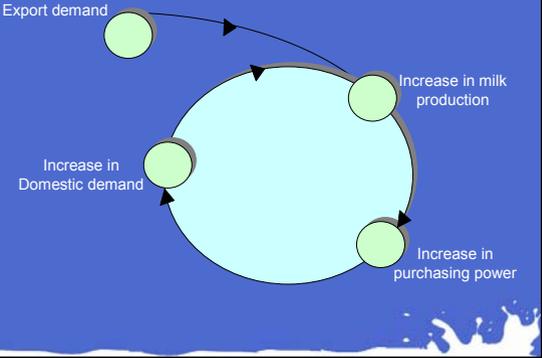
- Scale, Cost competitiveness
- Consistent availability

### Consumer

- Availability at an affordable price
- Improved nutrition



Exports : Trigger for Self Sustaining Growth Cycle



Thank You.