

Role of Dairy and Food Processing Industries for Promoting Economic Growth in Eastern India

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The Big Opportunity for India as a Food Supplier

- 41% of world's mangoes
- 30% of cauliflower
- 28% of Tea
- 23% of bananas
- 24% of cashewnuts
- 36% of green peas
- 14% of milk
- 10% of onion

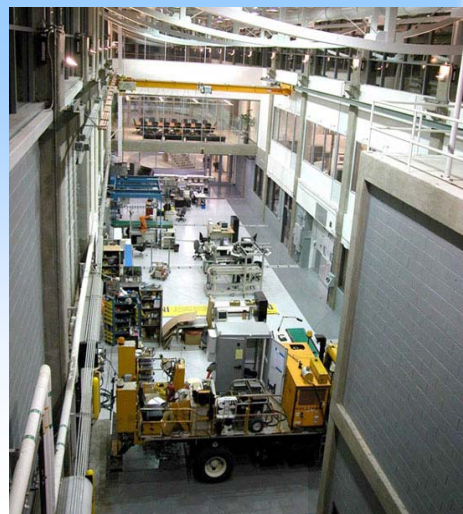


Food Market in India

Type of Foods	Rs. in billion
Total Food Consumption	8,600
Processed Foods	4,600
Primary Processed Foods (packed fruits and vegetables, packed milk, milled rice, flour, tea, coffee, sugar, pulses, spices, and salt)	2,800
Value-added foods (includes fruits and vegetables, juices, jams, pickles, squashes, concentrates, ghee, paneer, butter, sweets, breads, biscuits, snack foods, pasta based foods, processed meat, poultry and marine products, confectionary and chocolates, alcoholic beverages – beer, spirits, wine, aerated and malted beverages)	1,800

Vital Food Facts in India....

- Indian Food Processing Market – \$ 105 billion currently.
- It may increase 3 fold by 2015 and touch \$ 310 billion.
- India's share in world trade in food and agricultural products may touch \$ 20 billion by 2015 from the current \$ 7.5 billion.



Vital Food Facts in India...

- Investment of Rs. 100, 000 crores likely to be made in next 10 years in India in Food Processing sector to enable:
 - the level of processing in food perishables from 6% to 20%
 - value addition from 20% to 35% and
 - share in global food trade from present 1.5% to 3%.
- The above investment can increase the growth rate of food and beverage industry from 7% to 12-15% over the next 10 years.



Vital Food Facts in India...

- Key Indicators of Indian Food Industry:
 - Rs. 58, 000 crore worth fruits, vegetables and cereal grain is wasted each year in India.
 - Sufficient to feed 27% of the below poverty line population.
 - This amounts to more than a third of total food produce.
 - Output that survives, only about 2% is processed in India, against 80% in Malaysia, 78% in the Phillipines, 70% in Brazil and 30% in Thailand.



How much food is produced in India?

Food	Production (million Tonnes)	India's Rank in the world	India's share (%)	India's share in Exports (%)
Wheat	65	2	12	0.02
Paddy	124	2	22	18
Coarse grains like Maize	29	3	4	-
Milk	98	1	16	Negligible
Fruits	47	2	10	Negligible

How much food is produced in India?

Food	Production (million Tonnes)	India's Rank in the world	India's share (%)	India's share in Exports
Vegetables	82	3	10	Negligible
Edible Oilseeds	25	3	7	Import
Pulses	15	1	21	Import
Sugarcane	245	2	21	-
Tea	0.85	1	28	12

Level of Processing in Perishable Foods

Food Product	Level of Processing		
	Organized	Unorganized	Total
Fruits & Vegetables	1.4%	0.8%	2.2%
Milk & Milk Products	13%	22%	35%
Meat (Buffalo)	21%	-	21%
Poultry	6%	-	6%
Marine Products	8%	-	8%

Key Impediments to Growth of Processed Foods

- Demand side
 - Low per capita income of large population
 - Socio-cultural factors such as preference for freshly cooked products as compared to packaged products
 - Availability of low-cost domestic help
- Supply side
 - Long and fragmented supply chain with independent players
 - High cost of raw material (due to low productivity)
 - Lack of scale of production
 - High cost of packaging
 - Lack of capital investment (power, equipment, cold chains)
 - Poor distribution network



Significance of Dairy Sector

- Dairy sector: GDP exceeding Rs. 100,000 crores.
- India: largest milk producer in the world, with a record level of 94 MT
- accounting for more than 14 per cent of the world and 57 per cent of Asia's total production.
- Growth rate: 4 - 5%.

.....INTRODUCTION



- Largest milch animals in the world: 198 million cattle and 86 million buffaloes.
- Potential that can catapult India as a major dairy exporting country on global basis

Projection of Total milk production (Million tones)

Countries	Milk production for 2003	Growth rate (1996-2006)	2010	2015	2020
India	86.96	3.95	114.05	138.42	168.01
USA	77.25	1.33	84.74	90.52	96.70
Brazil	24.65	3.44	31.23	36.99	43.80
France	24.61	-0.21	24.25	24.00	23.75
China	17.28	9.15	31.89	49.41	76.55
UK	15.06	-0.02	15.04	15.02	15.01
World	591.52	1.47	655.14	704.73	758.07

Dairy Infrastructure in India

Institutions	Number/handling capacity
State Coop Federations	22
District Milk Unions	180
Dairy Cooperatives	84289
Rural Milk Procurement	15780 tonnes/d
Milk Marketing	9534 tonnes/d

SWOT Analysis of Indian Dairy Industry



Strengths:

- World's largest milk producer
- Margins: Quite reasonable, even on packed liquid milk
- Flexibility of product mix: Tremendous. With balancing equipment, you can keep on adding to your product line
- Availability of raw material: Abundant
- Technical manpower: built over last 30 years

Weaknesses:



- Poor sanitary standards, inconsistent quality of processed milk and milk products
- Perishability of milk
- Lower milk yield of milch animals
- Logistics of procurement
- Problematic distribution
- Competition: becoming tougher day by day



Opportunities

- Large Domestic captive market.
- Value addition: phenomenal scope for innovations
- Export potential



Threats

- Milk vendors, the unorganized sector
- WTO/dumping of subsidized imported milk products
- Any investment idea can do well only when you have three essential ingredients:
 - entrepreneurship (the ability to take risks)
 - innovative approach (in product lines and marketing)
 - and values (of quality/ethics).



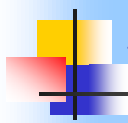
Marketing Scenario

- India: assuming an important position in the global dairy industry.
- Many international dairy companies are eyeing to tap its vast growing market for dairy products.
- Similarly, many Indian companies would like to tap other markets.



Domestic market

- India's dairy market is multi-layered. shaped like a pyramid
- Base made up of a vast market for low-cost milk.
- The narrow tip at the top is a small but affluent market for western type milk products.



Emerging Food Markets

- **Food service institutional market:** growing at double the rate of consumer market
- **Defense market:** An important growing market for quality products
- **Ingredients market:** A boom is forecast in the market of dairy products used as raw material in pharmaceutical and allied industries
- **Parlour market:** opens new vistas for ready-to-serve dairy products



Promising products: Liquid milk

- Fluid milk offers an exciting marketing opportunity (growth rate: 8-10%).
- At present only 15% of the milk is packed.
- Barely 778 out of 3,700 cities and towns are served by its milk distribution network.
- Packed milk segment would double in the next five years



Promising products:

Liquid milk

- Exploiting these opportunities requires:
 - safe and secure packaging,
 - treatment to maximize the shelf life of milk, and
 - cold chain from manufacturer to retailer.
- It also requires a value-added liquid milk variant such as flavored milk, fortified milk, dietary milk etc.



UHT Processing

- UHT processing: Suitable under Indian conditions
- Milk based Flavoured and refreshing beverages
- Processes for viscous and particulate UHT products
 - Milk dessert
 - Cream
 - Kheer/Dalia
 - Other particulate foods
- Boon for product diversification, value addition



Traditional Dairy Products....

- TDP are India's largest selling and most profitable segment.
- Significant headway has been made in the industrial production of *shrikhand*, *gulabjamun*, *peda* and *burfi*.
- Increasing organized production of TDP - a major breakthrough.
- This expansion marks the second wave of India's white revolution.



Traditional Dairy Products....

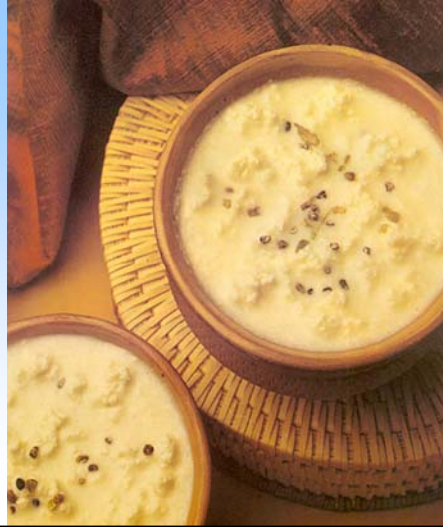
- Market for this largest and fastest growing segment is estimated at Rs. 50,000 crores.
- The growth of this sector is impressive at Rs. 5,000 crores per year.
- A niche global market has strongly emerged for ethnic Indian dairy products.
- Oceania, Middle-East, Western Europe, and North America represent a lucrative export market of over US \$ 1.5 billion.





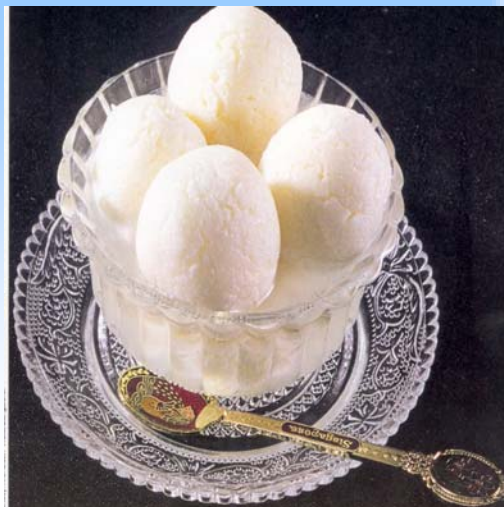
Traditional Dairy Products....

- There is an opportunity to take advantage of this niche market by:
 - meeting the quality and standards required for the global market.
 - cost effective packaging materials and machanization of manufacturing
- The full potential of TDP sector can be tapped by involving entrepreneurs in its development specially Eastern Region.



Convenience/RTE Foods

- Instant *Kheer* Mix, *Basundi* Mix
- *Khoa* Powder
- *Gulabjamun* Mix Powder, *Rasogolla* Mix Powder
- Long life *Paneer*
- *Cake mixes*
- *RTE Roti, Chole Bhature, Palak Paneer etc.*





Promoting Entrepreneurship in Dairy and Food Processing: Strategies....

■ Research & Development

- Undertake applied R&D in frontier areas
- Develop world-class products, processes, equipment, packaging systems etc.
- Focus on process optimization and scale up from lab to pilot scale.

■ Supply chain interventions

- Promote direct processor-farmer linkages
- Farmgate to Fork (backward and forward linking)
- Modernization of agril. markets, warehouses
- Support to entrepreneurs for developing food parks with National and International access.



Promoting Entrepreneurship in Dairy and Food Processing: Strategies....

■ Human Resource Development

- Set up world class academic institutions
- Offer continual training with specific needs
- Develop entrepreneurship development programmes

■ Food Safety and Hygiene

- Develop and implement modern food laws with single regulator
- Phase-wise harmonization of Indian food standards with Codex



Promoting Entrepreneurship in Dairy and Food Processing: Strategies....

- **Export Promotion**
 - Encourage food processors to obtain accreditation from international agencies
 - Raw materials and processing standards to meet international standards

- **Financing of Food Processing Sector**
 - Single window clearance for FDI in food processing
 - Include food processing in direct priority sector lending
 - Institute monitoring mechanisms for projects assisted

