
Milk and Dairy Products in India – Production, Consumption and Exports

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A milk booth in Mumbai

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1. Introduction

- ▶ India is the largest producer of milk producing more than 100 million tons of milk per annum. Yet, her per capita milk consumption is around 250 g per day.
- ▶ India has a population of more than 1 billion with diverse food habits, cultures, traditions and religions. Regional variations within the country can be mind boggling. On one hand, the country has plains with long tradition of milk production and consumption. On the other hand, there are forest and hilly regions with no tradition of dairying. Most of coastal belts also do not have much of dairy tradition.
- ▶ Cow is holy for Hindus who make up more than 80 per cent of the population of India. Buffalo enjoys no such holy status. Cow slaughter is banned in many states of India. There are no restrictions on buffalo culling.

All this makes India a very complex dairy country.

Till about year 2000, India was not on the radar screen of most international dairy companies, since India was neither a major importer nor an exporter of dairy products. Through the 70's, 80's and 90's India used to take some milk powder and butter oil as aid. Exports from India were insignificantly small. From 2000 onwards, Indian dairy products, particularly milk powder, casein, whey products and ghee started making their presence felt in global markets.

The decade of 2000-10 will be recorded in dairy history as the decade of exports. But the next decade will be different. Signs of change are already visible. On one hand, India is finding it difficult to sustain exports of dairy products due to low global prices and high domestic prices. On the other hand, some dairy products and companies from India have been able to make their mark on international markets leading to increase in their exports even when the overall global market sentiment has turned negative.

Reintroduction of subsidies by European Union, continuing global economic downturn and devaluation of currency of a major dairy exporting country like New Zealand combined with high domestic prices have made dairy imports into India attractive. The day is not far when India will become a net importer of dairy products. It is expected that initially large-scale imports will be of dairy commodities, which will be used by Indian dairy cooperatives and companies to make reconstituted milk and other branded dairy products. Imports of branded dairy products may trickle in later.

Table 1.1 – Projected growth rate of milk production and dairy products consumption

Product	Projected Growth Rate Per cent per annum
Milk production	3
Ghee consumption	9
Table Butter consumption	10
<i>Paneer</i> (cottage cheese)	10
Processed cheese	14
Dairy whiteners and condensed milk	8

India's milk production will continue to grow at about 3 per cent per annum in spite of difficulties

due to stagnant livestock herd size and shortage of fodder. Due to increasing population, per capita availability of milk will increase by only about 1.5 per cent per annum. For an economy growing at about 6 per cent per annum, this increase in availability will be grossly inadequate.

Production growing at only 3 per cent and consumption growing at more than double the rate is obviously going to lead to a mismatch between demand and supply. This will create opportunities for international dairy companies.

On one hand, India is expected to enter the international market with demand for commodities like skimmed milk powder and butter oil. On the other hand, growing prosperity and fast growth of organized modern retail and western style fast food outlets will lead to increased consumption of products like cheese and table butter. This will throw up opportunities for branded dairy products to enter this huge market of more than a billion people.

Helping international as well as Indian companies understand the dairy scenario of India from a macro-level perspective is the prime objective of this study. Facts and statistics, instead of opinions and impressions, are the key building blocks of this report.

During the study, we have tried, as far as possible, to rely on official data from some department / ministry / agency / directorate of government of India. This poses a problem since government agencies of India are slow in releasing data. For example, Director General of Commercial Intelligence & Statistics, Kolkata (responsible for compiling data on India's imports and exports) had till the 1 August 2009 released monthly export data in respect of only December 2008. Department of Animal Husbandry's latest data is given in their Handbook released in December 2006, which gives data only for financial year ended on March 2006.

Inadequacy of official data is a perennial problem with most developing countries. Fortunately, in case of India the problem is not as severe. India has one of the oldest and most reliable census systems in the world. India conducts a fairly reliable livestock survey regularly. Data on economic fundamentals is extremely detailed and easily available. Trade data collection system of India is better than of most developing countries and is much more reliable than of most non-democratic countries.

Separating the useful and relevant from irrelevant and useless is always a challenge. It is more when so when one has an ocean of data (parts of which may be a bit old). This is a challenge that we are able to undertake with our long experience in India and Indian dairy / livestock industry in particular. We have our ear on the ground in India. We understand the dynamics of fast-changing India. We use the historical data provided by government agencies and rely on our experience and insightful expertise to see trends that others notice much later.

We hope that the study helps you get a macro-level understanding of the dairy scenario in India. This may however not answer all the queries that you may have. We look forward to conducting in-depth micro-level studies related to Indian dairy industry for you based on your requirements.

For any queries or research assignments, kindly contact us.

Annexure A – Definitions & Abbreviations

Term	Meaning or Explanation
Bio	Billion
Mio	Million
GDP	Gross Domestic Product
WPI	Wholesale Price Index, which is a measure of wholesale price movement for the economy. The concept of wholesale price adopted for calculation of WPI represents the quoted price of bulk transaction generally at primary stage.
MMPO	Milk and Milk Products Order, 1992
MSNF	Milk Solids Not Fat
SNF	Solids Not Fat
SMP	Skimmed Milk Powder
APEDA	Agricultural and Processed Food Products Export Development Authority (India)
DAHD	Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Govt. of India
DGCIS	Directorate General of Commercial Intelligence & Statistics
FICCI	Federation of Indian Chambers of Commerce and industry
IGFRI	Indian Grassland and Fodder Research Institute
NDDB	National Dairy Development Board
NSS / NSSO	National Sample Survey Organisation
RBI	Reserve Bank of India
USDA	United States Department of Agriculture
Ghee	Ghee is clarified butter. Cream and butter are boiled long enough to remove all traces of water to get ghee. Butter oil and ghee are similar, except that ghee has a distinct aroma.
Lassi	Lassi (often thick) is curd churned and cooled with ice. Lassi is popular in north India and can be sweet as well as salted.
Chhach	Chhach or butter milk is also curd churned. It is always thin and salted. Spices like cumin powder and mint are often added to chhach.
Paneer	Paneer is a semi hard unripened cheese mainly obtained by acid coagulation. It has a soft and thin rind. Its body is homogeneous without eyeholes and it has a mild and fresh taste. Its colour is white when it is made mainly from buffalo milk and yellowish in other cases.
Chhana	Chhanna consists of acid coagulated milk solids used for the preparation of many milk based sweets. It differs from paneer in that no pressure is applied to remove the whey.
Rasogolla	Rasogolla is the most common chhanna-based sweet. It is prepared using fresh and soft-chhanna. It is in the form of balls 30 mm in diameter with a typical spongy body and smooth texture. It is stored and served in sugar syrup
Khoa	Khoa is obtained from cow, buffalo or mixed milk by thermal evaporation of milk in an open pan.
UHT	Ultra-high Temperature Treated

Financial Year in India is from 1 April to 31 March. So, year 2006-07 refers to the period from 1 April 2006 to 31 March 2007

Annexure B – Sources of Information

- Agricultural and Processed Food Products Export Development Authority, (Ministry of Commerce, Govt. of India), NCUI Building, 3, Siri Institutional Area, August Kranti Marg, New Delhi - 110 016 - <http://www.apeda.com/>
- Central Statistical Organisation, Ministry of Statistics and Programme Implementation, Room No.4, Wing No.6 (Ground Floor), West Block-8, R.K. Puram, New Delhi-110 066, - www.mospi.gov.in
- Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Government of India - <http://dahd.nic.in/>
- Department Of Commerce, Ministry of Commerce & Industry, Government Of India - <http://commerce.nic.in/eidb/Default.asp>
- Directorate General of Commercial Intelligence & Statistics, 1, Council House Street, Kolkata – 700001 – <http://www.dgciskol.nic.in>
- Economic Survey 2007-08, Announced by Finance Minister in Parliament on 28 February 2008 - <http://indiabudget.nic.in/es2007-08/esmain.htm>
- Economic Survey 2008-09, Announced by Finance Minister in Parliament on 2 July 2009 - <http://indiabudget.nic.in/es2008-09/esmain.htm>
- Federation of Indian Chambers of Commerce and Industry, Federation House, 1, Tansen Marg, New Delhi - <http://www.ficci.com/>
- Food And Agriculture Organization Of The United Nations - <http://faostat.fao.org/default.aspx>
- Goswami Bhaskar, Can Indian Dairy Cooperatives Survive in the New Economic Order? Session on "Supply Management in Support of Rural Livelihoods under the WTO" WTO Public Forum 2007 "How Can the WTO Help Harness Globalization?" 4 – 5 October, 2007 Geneva
- Hindu Business Line - <http://www.thehindubusinessline.com/>
- Household Consumer Expenditure in India 2006-07, NSS 63rd Round (July 2006 – June 2007), National Sample Survey Organisation, Ministry of Statistics and Programme Implementation, Government of India - http://mospi.nic.in/nssso_test1.htm
- Indian Grassland and Fodder Research Institute (IGFRI) - <http://igfri.ernet.in/>
- National Council of Applied Economic Research (NCAER), Parisila Bhawan, 11,Indraprastha Estate, New Delhi -110002 - <http://www.ncaer.org/>
- National Dairy Development Board - <http://nddb.org/>
- National Sample Survey Organisation, Ministry of Statistics and Programme Implementation, Government of India - http://mospi.nic.in/nssso_test1.htm
- Office of the Economic Adviser to the Government of India, Ministry of Commerce and Industry - <http://eaindustry.nic.in/>
- Office Of The Registrar General & Census Commissioner, India - <http://www.censusindia.gov.in/>
- Reserve Bank of India - <http://rbi.org.in>
- Seventeenth Livestock Census 2003 - <http://dahd.nic.in/census.htm>
- Steven J. Staal, Alejandro Nin Pratt, and Mohammad Jabbar; Dairy Development for the Resource Poor, Part 3: Pakistan and India Dairy Development Case Studies; PPLPI Working Paper No. 44-3, Pro-poor Livestock Policy Initiative, International Livestock Research Institute - <http://www.fao.org/ag/pplpi.html>
- Dairy, World Markets & Trade; United States Department of Agriculture (USDA), Foreign Agricultural Service Circular Series FD 2-07, December 2007 and December 2008. <http://www.fas.usda.gov/>

Annexure C - Profiles

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