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**Can Indian Dairy Cooperatives Survive in the New Economic Order?**

**Bhaskar Goswami**  
**bhaskargoswami@hotmail.com**



**Forum for Biotechnology & Food Security**

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## **Can Indian Dairy Cooperatives Survive in the New Economic Order?**

**Bhaskar Goswami<sup>1</sup>**

Over the last four decades, while India has made tremendous progress in food production, the growth in agriculture sector has hovered around three percent. The contribution of agriculture to the Gross Domestic Product (GDP) has also declined steadily. On the other hand, the contribution of the livestock sector to the overall GDP has been consistent at a rate of five percent during the last three decades. Today, the livestock sector contributes over 25 percent of the output of the agriculture sector.

As per available statistics, the holding size of 58 percent of rural households in India is less than two hectare while another 32 percent are landless<sup>2</sup>. However, they own 75 percent of the country's livestock resources and almost half of the income of this class comes from livestock. Thus, the livestock sector is regarded by many as one of the most pro-poor sectors with any positive development translating into increased income and employment to millions across the country. The landless and marginal farmers are also able to produce at a very low cost, thereby making their product highly competitive in the market.

Within the livestock sector, dairying has emerged as an important source of income and employment in rural areas, especially for marginal and small farmers, who own about 33 percent of cultivable land mass but account for almost 60 percent of female cattle and buffaloes in the country. Dairying contributes to a third of the gross income of rural households and nearly half for the landless.

In terms of trade, the value of output from livestock at about Rs. 1,733 billion in 2004-05 of which milk accounted for 68 percent<sup>3</sup>. In fact, the value of milk was higher than paddy (Rs. 704 billion) and wheat (Rs. 480 billion). Thus, in terms of value of output, milk is now the single largest agricultural commodity in India. Dairy products account for 70 percent of the output of the livestock sector and also provide employment to around 75 million women and 15 million men<sup>4</sup>.

### **Emergence of the Cooperative Movement in Dairying**

The positive role that dairying could play in providing income and employment opportunity was clear to policy-makers long time back and a set of measures were put in place to develop and protect the dairy industry. Immediately after India gained independence, the Milk Control Board was set up which controlled the supply and distribution chains. This however led to emergence of a set of middlemen and the share of producers in the sales declined. With processing units set up in cities, it became difficult to procure and transport milk from the centres of production which were in the rural areas. As a result, the yield of milk declined and imports of milk powder went up.

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<sup>1</sup> Forum for Biotechnology & Food Security, New Delhi, India. bhaskargoswami@hotmail.com

<sup>2</sup> National Sample Survey Organisation

<sup>3</sup> Central Statistical Organisation

<sup>4</sup> Based on income parameters, the dairy sector provides the largest employment opportunity to women in India

While the government was grappling with these problems, a quiet revolution was taking place in the village of Kaira in Gujarat which set up a cooperative to procure, process and market milk. In 1973, the Kaira Cooperative Union set up a marketing agency named Gujarat Cooperative Milk Marketing Federation (GCMMF), which follows a three-tier structure at village, district and state level for procuring, processing and marketing milk and milk products. The district units also provide technical back-stopping to the milk producers and a range of services such as feed, veterinary care, artificial insemination, education and training. These milk cooperatives of Gujarat today own the GCMMF, the largest food products business in India. GCMMF is also the largest exporter of dairy products from India and its brand name Amul is known all over the world.

This experiment laid the foundation of the cooperative movement in milk production and marketing in India. The federal and egalitarian structure of these cooperatives ensures social and economic equity to the milk producers and is one of the major reasons for its success.

The government adopted this successful model and set up the National Dairy Development Board (NDDB) in 1965 which prepared a blueprint for a milk revolution across the country. Known as Operation Flood, this programme began in 1970 and was implemented across the country. It was also one of the largest rural development programmes in the world which ran for 26 years and helped India to emerge as the world's largest milk producer in 2003-04 with a record output of 88.1 million tonnes. The production continued to rise and in 2006-07 India produced more than 100 million tonnes of milk.

The most significant contribution of the dairy sector is in generating income and employment to millions across the countryside. With a daily procurement of 21.5 million litres each day, there are 117,575 village dairy cooperatives which provide income to 12.4 million farmers<sup>5</sup>. Following the footsteps of Amul, many more brands like Vijaya, Verka, Saras, etc. have emerged as leading competitors.

### **Growth in Production and Trade of Dairy Products**

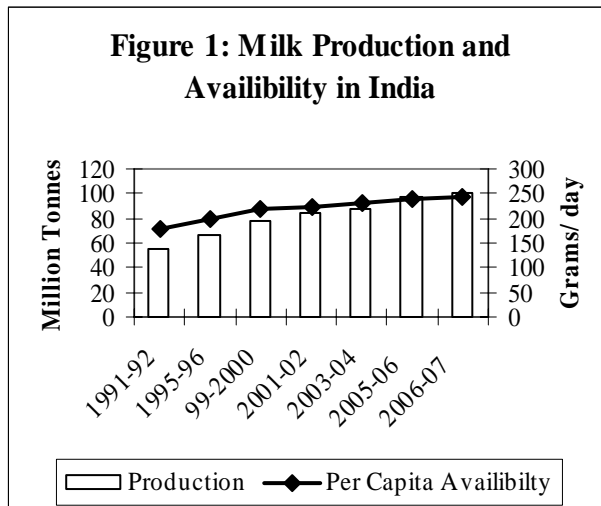
Before Operation Flood came into being, India was a net importer of dairy products, mainly milk powder. However, milk production has increased substantially (figure 1) and in 2006-07 it almost doubled from the 1991 levels to touch 100 million tonnes. During this period, the per capita availability of milk also increased by almost 38 percent. This phenomenal growth in milk production has been due to demand-side development and supply-side promotions – increased demand for value-added products by consumers and extensive dairy development programmes.

The milk production, supply and marketing in India is highly decentralized. Almost 55 percent of the milk produced is consumed by the producer household. Of the remaining, two-third is sold in informal markets and 15-16 percent of the total milk produced in the country enters the organized market comprising cooperatives and the private sector. During 1999-2000, there were around 770 dairy processing units in the

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<sup>5</sup> National Dairy Development Board Statistics

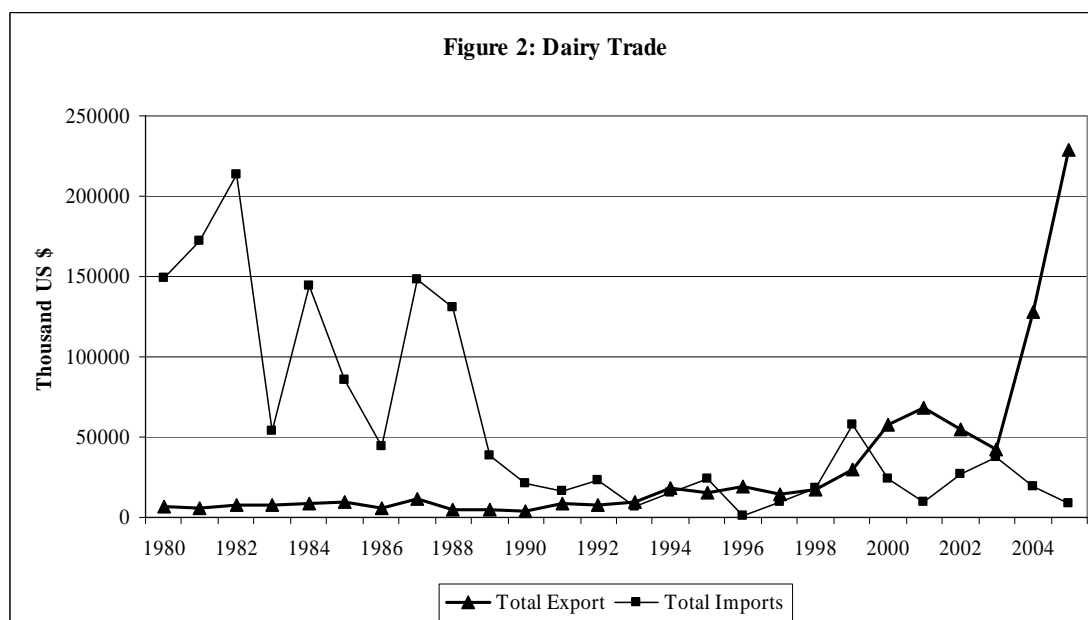
organized sector. Vendors and milk dealers dominate the informal market where the former generally procures milk from producers and sells them to urban households, while the latter supplies to private processing units. Of the milk that enters the formal and informal market, almost 45 percent is consumed in the raw form while the remaining is processed to produce *ghee*, *khoa*, butter, curd, milk powders, cottage cheese, etc<sup>6</sup>.



Source: Basic Animal Husbandry Statistics, 2006

Traditionally, India has been an importer of dairy products till Operation Flood began showing

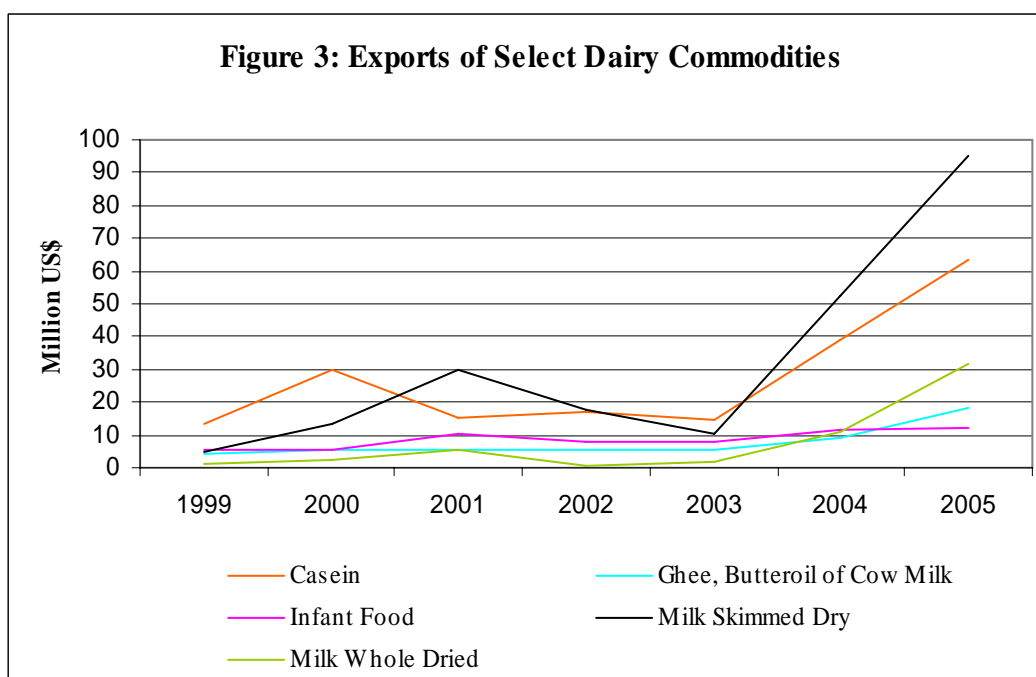
results. The trend for imports continued till 1993, when, for the first time, exports exceeded imports. Between 1993 and 1999 imports and exports kept edging each other out, and since 2001, India has been a net exporter of dairy products. Post 2003, exports have grown at an astonishing rate while imports have dipped (figure 2). However, India's share in global dairy trade is 0.3 and 0.4 percent for exports and imports, respectively, which is almost negligible. The main reason for this is that bulk of the milk in India is consumed in liquid form by the producer households. Also, with increasing income levels in urban centres, the demand for processed dairy products has gone up leaving lesser surpluses for export.



Source: Computed using FAOSTAT online database

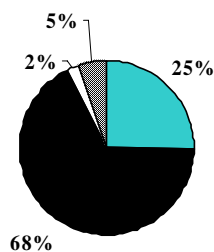
<sup>6</sup> Kurup MPG. 2002. Smallholder dairy production and marketing in India: Constraints and opportunities. In: Rangnekar D and Thorpe W (eds), *Smallholder dairy production and marketing—opportunities and constraints: Proceedings of a South–South workshop held at NDDDB, Anand, India, 13–16 March 2001*. pp. 65–87

In 2005, dry skimmed milk and casein accounted for 43 and 28 percent of the total dairy exports from the country (figure 3). The rest was made up of dried whole milk, ghee and butter oil from cow milk and infant food. Almost all of India's dairy exports are meant for Asian and African countries. In Asia, neighbouring countries in South Asia and the Middle East are the main buyers [4(a), (b)]. Bangladesh is the largest buyer of Indian dairy products and along with Algeria and UAE, accounts for almost one-third of total dairy exports from India. Despite many efforts, India has not been able to breach the impregnable markets of Europe and North America, while the market in South America remains untapped.



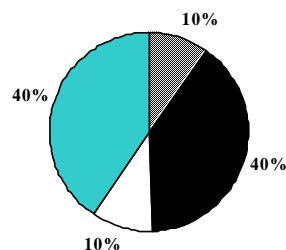
Source: Computed using FAOSTAT online database

Fig 4(a): Dairy Export Destinations by Value 2005-06



Legend: Africa ■ Asia □ Europe ■ North America

Fig 4(b): Dairy Exports in Asia by Value 2005-06



Legend: ■ South East Asia ■ South Asia □ North Asia ■ Middle East

Source: APEDA online database (www.apeda.com)

## **Liberalisation of the Dairy Sector**

As evident from the preceding sections, the cornerstone of India's milk revolution has been the cooperative dairy sector which was protected from cheap subsidized imports through quantitative restrictions and by strict control over exports and imports through the State-owned Indian Dairy Corporation. The competition from private sector was controlled through licensing under the Industrial Development and Regulation Act of 1951, which discouraged new entrants into the dairy processing sector. A suitable price-environment was created and is considered as a key for the impressive growth in this sector.

All this changed in the early nineties when major financial and trade policy reforms were initiated in all sectors of the Indian economy including the dairy sector. The first step was to encourage private participation and the dairy industry was de-licensed in 1991. That dairy is a lucrative business became obvious when within a year of de-licensing, more than 100 privately-owned milk processing plants came up in the major milk producing states. Despite their numerical strength, the cooperative sector did not have the capacity to compete against these private players flush with capital and fortified with modern technology.

Realising this, the government had to step in again and the Milk and Milk Products Order (MMPO) was issued in 1992 under the Essential Commodities Act (ECA) to regulate production of milk and dairy products. The MMPO reintroduced licensing and also required private players to set up their own zones of procurement (milk-sheds) that were beyond the existing milk-sheds of cooperatives. This was done to check private players from poaching on milk-sheds of the cooperative sector.

However, swept by the wave of liberalization, the government again amended the MMPO in 2001 and allowed State governments to grant a one-time license to the private sector, and also abolished renewal of license. In 2003, restrictions on setting up milk processing and milk product manufacturing plants and also the concept of milk-sheds were eliminated. The amended order emphasized sanitary, hygiene, quality and food safety of milk and milk products.

Contract farming schemes in the dairy sector has been permitted and notable sops being offered to the private sector include reimbursement of 10 percent of the funds invested (up to Rs. 1 million) by a processor in strengthening the backward linkages, reduction in excise duties on processed foods and reduction in corporate taxes<sup>7</sup>. Based on the Model Cooperative Law, the Multi-State Co-operatives Societies Act of 1984 was amended and State governments were asked to amend their Acts on similar lines. This, according to the government, will make the system "market-driven", a well-understood code for privatization and competition. Village cooperatives are now expected to run on commercial lines as corporate entities.

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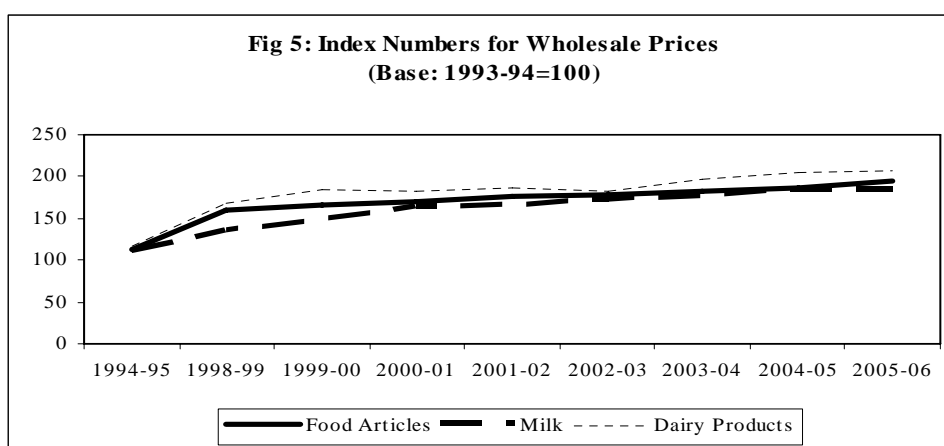
<sup>7</sup> These sops were not required as the contractors were also following the cooperative model of procurement through milk-sheds

As a result of the domestic policy changes mentioned above, the protection for dairy products (in terms of nominal protection coefficients<sup>8</sup>) in India was drastically downscaled during the nineties. In the case of Skimmed Milk Powder (SMP), it is actually negative. The nominal as well real prices of milk and milk products have declined after reforms in dairy sector were introduced in 1991, as is clear from Table 1. Notwithstanding the achievements of the cooperatives and Operation Flood, this decrease in growth of prices has adversely affected the growth of production of milk and milk products (Table 1). Milk prices have also remained below the overall price of all food articles taken together (figure 5)<sup>9</sup>.

**Table 1: Growth Rates in Prices and Production of Milk and Milk Products**

Nominal Prices			Real Prices			Production	
1981-82 to 1990-91	1990-91 to 1996-97	1996-97 to 2001-02	1981-82 to 1990-91	1990-91 to 1996-97	1996-97 to 2001-02	1981-82 to 1990-91	1990-91 to 2000-01
8.57	8.06	7.89	1.70	-2.25	2.74	5.41	4.29

Source: Index Number of Wholesale Prices in India, Government of India, various Issues.



Source: Office of the Economic Adviser of the Government of India, Ministry of Commerce & Industry

In addition to removing protection, a series of measures have been employed that are subverting the cooperative dairy sector. Take for instance the prevailing system of taxation. While primary dairy cooperatives at the village level are exempt from paying income tax, the district and state level cooperatives are taxed at the rate of 35 percent. In 2006-07, the government reduced the income tax rate for private dairy companies by 10 percent but did not reduce it for cooperatives.

The government provides duty drawbacks at varying rates for exports of some dairy commodities. In the case of casein, a duty drawback of 14 percent is applicable,

<sup>8</sup> NPC measures the extent to which domestic prices diverge from border equivalent prices. For producer prices, it is the ratio of domestic producer price and international price adjusted for transport, processing and marketing costs. An NPC of more than 1 means that the sector is protected.

<sup>9</sup> Fall in prices if not accompanied by a fall in cost of inputs can depress income levels. Cereals, pulses and oilcakes are important concentrate feeds for livestock. While wholesale price-rise of cereals was negative during the 1980s, it started rising in the 1990s. Prices of pulses kept rising while that of oilseeds remained low during the 1990s. This translated to lower levels of income to milk producers.

whereas no such benefits are allowed for skimmed milk powder or full cream milk powder. This is despite the fact that all three products are obtained from milk and export of milk powder forms the bulk of India's dairy exports.

In February 2007, the government suspended export of skimmed milk powder citing potential domestic price rise and milk shortages as the reason. This argument does not hold much water. In 2005-06, India exported a record 47,300 tonnes of skimmed milk powder<sup>10</sup> that was obtained from about 560,000 tonnes of raw milk<sup>11</sup>, or barely 2.25 days of produce in the country. Further, the production of SMP in the country is around 150,000-160,000 tonnes, and exports would have accounted for less than a third of what is produced. Ironically, export of another milk product – casein – continued during this period. It is noteworthy that cooperatives are the major producer of SMP and the GCMMF suffered major losses on account of this move.

Under sustained pressure of cooperatives running losses, export of SMP has now been permitted October onwards. But the damage has already been done. International market price for SMP has been around \$5,000 per tonne while the domestic price is \$3,375. This price difference could have translated to an increase in 6-7 percent income to dairy farmers. The dairy industry estimated that banning SMP exports for seven months has cost Indian dairy farmers approximately Rs. 5 billion (approximately US\$ 1.25 billion at current rate of exchange). The ban on exports has benefited private sector manufacturers who use milk powder as an ingredient for their products.

While farmers have suffered losses on account of an export ban on SMP, the price trend of most feed ingredients have been on a high since 2006<sup>12</sup>, which has increased the cost of production. While the procurement price of milk has been marginally increased, no efforts are being made to contain the price of cattle feeds. For instance, oilcakes which are an important feed ingredient to increase milk yield have been displaying and increasing price trend<sup>13</sup>. Bizarrely, its export has been allowed while exports of a value-added product like SMP were banned.

Ghee is commonly used for cooking by most Indians. Ghee and edible oil are considered to be substantially equivalent to each other. While most states have levied a Value Added Tax (VAT) at the rate of 4 percent for edible oil, it is 12.5 percent in the case of Ghee. This differential rate of taxation is affecting the competitiveness of ghee in the market. The liberal imports of edible oils have also depressing ghee prices. It is unfortunate that through various policy instruments, dairy farmers surviving at subsistence levels are being forced to subsidise the lifestyle of people living in cities.

It is in this state of affairs that a severely handicapped cooperative dairy sector is expected to compete in the new economic order brought about by the multilateral trade agreements under the WTO.

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<sup>10</sup> FAOSTAT

<sup>11</sup> Assuming 8.5 percent fat content

<sup>12</sup> Office of the Economic Adviser of the Government of India, Ministry of Commerce & Industry

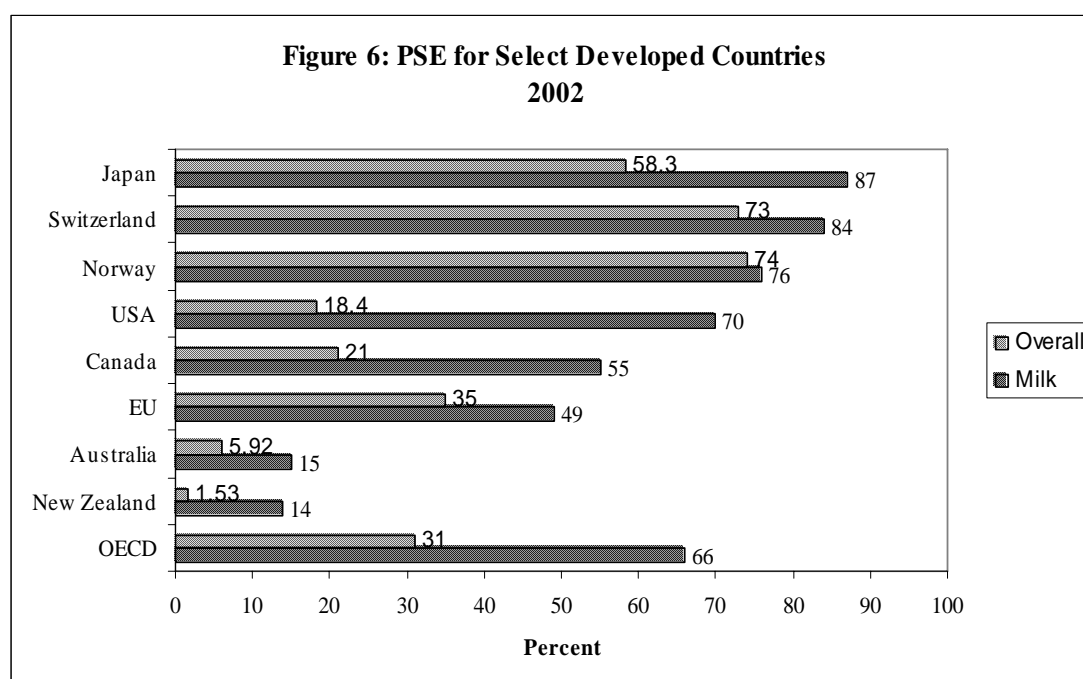
<sup>13</sup> In India, feed ingredients account for 80% of the cost of production



## Experience of Indian Dairy in Post WTO Scenario

Much is known and has been written on the domestic support provided by the OECD countries to their dairy sector. The high levels of market price support along with export subsidies have consistently come in for criticism. Besides, their markets remain impregnable due to high tariffs, and sanitary and phyto-sanitary (SPS) norms.

There have been strident demands for dismantling exports subsidies for the dairy sector in EU. Over the \$6.8 billion of export subsidies notified in 1998 to WTO, the EU accounted for 88 percent. These have now been completely eliminated. Butterfat and cheese export refunds were brought down to zero on June 15<sup>th</sup> 2007. Refunds for SMP and WMP had already been reduced to zero in May 2006 and January 2007, respectively. The butter export subsidy was also cut from \$665/ tonne to zero. Butter oil refunds were cut from \$830/ tonne to zero. Cheddar cheese refunds were cut from \$333/ tonne to zero in June 2007. At present, the only export subsidy payments to the dairy industry are small subsidies for storing butter under the Private Storage Aid (PSA) scheme and payments on sales of butter to the socially deprived.



Source: OECD PSE Database, 2004

In EU, dairy premiums and additional payments were decoupled from production and incorporated into Single Farm Payment Scheme (SFP). The level of payment depended upon the amount of milk quota held (owned and leased in) by a producer for a past reference date. In 2005 (using the then prevailing exchange rates), dairy farmers in Scotland received approximately 1.6 pence per litre and 2.5 pence from 2006 onwards. Therefore, despite the elimination of export subsidies, the level of domestic support is still considered to be quite high. Figure 6 gives an idea on the

high levels of producer subsidy equivalent<sup>14, 15</sup> (PSE) prevailing in some developed countries. The level of PSE for milk is also higher than the overall support in agriculture.

On the tariff front, while most of the importing countries apply tariff rate quotas (TRQ) to limit imports of dairy products, any out-of-quota imports face prohibitively high tariffs. Take for instance the US, which applies TRQ for butter and cheese but for the rest tariff rates in excess of 100 percent is applied on over-quota imports. Similarly, EU imports butter through TRQ but for the rest (except cheese), it applies tariffs in excess of 100 percent. In any case, by using a base period of 1986-88, when dairy tariffs were very high, reductions in tariffs has not resulted in increased imports as tariffs remain very high. Additionally, developed countries have used special safeguard (SSG) provisions to insulate their markets from price and volume triggers. A combination of these three factors has contributed to make the markets impregnable for developing countries and going by available indications, they will remain so in the future.

The Indian dairy sector is confronted with the above realities when it wants to either export dairy products or shield its markets from subsidized imports. As part of the Uruguay Round negotiations, India had earlier bound its tariffs at 100 percent for primary agriculture products<sup>16</sup>. However, for around 119 tariff lines which used to be bound at much lower levels during earlier GATT rounds, the binding levels were quite low. Of these, dairy products were bound at zero tariffs. Later, India was allowed to renegotiate the tariff bindings on these 119 tariff lines, which were revised.

During 1999-2000, when the tariff for SMP was zero, India imported 130,000 tonnes of subsidized skimmed milk powder from EU. This quantity would have attracted subsidies worth €5million<sup>17</sup>. During the same period, butter oil imports grew at the rate of 7.7 percent. In 2002, even after paying an import duty of 35.2 percent, New Zealand was able to export butter oil to India at less than US\$ 1,000 per tonne when the prevailing global price was US\$ 1,300 per tonne<sup>18</sup>. This export at abysmally low price was possible even though New Zealand claimed not to be providing any subsidy to its dairy farmers.

Import of both these commodities in huge quantities nearly crippled the domestic dairy sector. India could have applied quantitative restrictions (QR) to protect its domestic dairy industry against import of SMP or increased the applied tariff rate for

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<sup>14</sup> PSE as a percentage gives an idea of the size of total transfers from consumers and taxpayers to producers, relative to the value of production and direct payments.  $PSE = (P - P^w) / P$ , where P is the Producer Price and  $P^w$  is the world market price.

<sup>15</sup> According to Berthelot, "OECD PSE calculation is highly biased as it considers world prices as the "true" price against which the gap with the domestic prices measures the "market price support" major component of PSE". Therefore, the PSE given here are in fact lower than what actually prevails in the OECD countries. *Source:* Berthelot, Jacques (2006) Communication from the Chairman of the Committee on Agriculture, Special Session Second Instalment, 25 May 2007. *Comments by Jacques Berthelot*, Solidarité <http://solidarite.asso.fr>. 28 May 2007 p4

<sup>16</sup> The exception was edible oil which was bound at 300 percent

<sup>17</sup> Oxfam (undated) Milking the CAP: How Europe's dairy regime is devastating livelihoods in the developing world.

<sup>18</sup> Devinder Sharma (2002) Stains on a Revolution. India Together, April 2002. Accessible at: [http://www.indiatogether.org/agriculture/opinions/ds\\_white.htm](http://www.indiatogether.org/agriculture/opinions/ds_white.htm)

butter oil but it surprisingly did not do so. Further, between 1996 and 2003, nine tariff lines (HS-6 digit level) pertaining to dairy exhibited import surges, although these items accounted for very low levels of imports. Of these, three tariff lines recorded an import of more than US\$ 1 million or more in 2003<sup>19</sup>.

While export subsidies on dairy products have been eliminated by the EU, the level of domestic support continues to be very high. A study by Jacques Berthelot shows how inputs such as feed-grains, irrigation, interest on loan, insurance continue to receive subsidies but are either not reported or under-notified<sup>20</sup>. According to Berthelot, “The importance of domestic subsidies to exported farm products shows that dumping will not end with the elimination of export refunds”<sup>21</sup>. As per calculations by the Indian Dairy Association in March 2007, EU is giving subsidy of more than US\$ 550 per tonne on SMP, US\$ 850 per tonne on Full Cream Milk Powder, US\$ 1,200 per tonne on butter and butter oil.

While EU/ US claim that milk producers’ subsidies have been scaled down, it appears that these are being replaced by processor subsidies through “box-shifting” and these are ultimately passed on to milk producers. Further, with the high level of domestic support to commodities that are exported, including dairy, these countries will continue with what Berthelot terms as “hidden dumping”. As a result, the Indian dairy sector will continue to find it difficult to compete with subsidized exports in the international market. For instance, India shares the export market with EU in Bangladesh and the Middle East but has to compete with their low-priced subsidized dairy products.

There is a huge disparity in tariffs on dairy commodities by India and some OECD countries such as EU. The tariffs on dairy commodities in developed countries are almost three times higher than in India. With tariff cuts of bound levels in the dairy sector being inevitable, it has serious implications on whether the Indian dairy sector can remain competitive in the future. At present, the average bound and applied tariffs for milk products in India are 83.75 percent and 28.75 percent, respectively, i.e. the “water” is 55 percent. While the coefficient for tariff cuts is still to be determined, in case the G20 prescription for tariff reduction is applied, the water is likely to come down to around 25 percent. This means that the flexibility to restrict imports through increasing tariffs will be reduced.

Low tariff rates also have serious implications on India’s supply management in the dairy sector. Prior to embarking on the path of liberalization and also implementing mandates under WTO, supply management in India involved promoting production through dairy cooperatives on one hand and preventing a fall in prices through

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<sup>19</sup> Ghosh, T.P. and Tamanna Chaturvedi (undated) Analysis of Surge in Imports of Dairy Products, Fresh Fruits and Processed Fruits by India. Indian Institute for Foreign Trade, New Delhi, India

<sup>20</sup> Berthelot, Jacques (2006) Review of the EU agricultural distorting supports to rebuild fair and sustainable agricultural trade rules after the Doha Round hibernation. Solidarité (<http://solidarite.asso.fr>) 21 August 2006

<sup>21</sup> Jacques Berthelot (2006) Food sovereignty, agricultural prices, and world markets. Paper presented at Forum on Food Sovereignty, Niamey, 7-10 November 2006. Réseau des Organisations Paysannes et de Producteurs Agricoles de L’afrique de L’ouest. Accessible at:

[http://www.roppa.info/IMG/pdf/J.\\_Berthelot-Food\\_sovereignty\\_agricultural\\_prices\\_and\\_world\\_markets-ROPPA\\_November\\_06.pdf](http://www.roppa.info/IMG/pdf/J._Berthelot-Food_sovereignty_agricultural_prices_and_world_markets-ROPPA_November_06.pdf)

quantitative restrictions on the other. This worked in favour of both producers as well consumers. By converting QRs to tariffs and opening up its markets, the domestic producers as well as price stand exposed to volatility driven largely by external forces. These forces are also exerting pressure on India's supply management system that is detrimental for India's dairy sector and producers.

As the advantage of tariff overhang is likely to be lost, Special Products (SP) assume high importance. While the number of tariff lines to be designated as SPs is yet to be decided, going by the stance adopted by the USA, they may not be very high. Chairperson of the agriculture trade negotiating committee has also voiced his concerns and quoting a recent study he said that a 20 percent SP can block 98 percent of the value of import. How has "value of imports" become the criteria for protecting the development interests of farmers is anybody's guess, but if it does become the basis for identifying SPs, India as well as other developing countries may not find even a single tariff line that meets this criterion.

As it is, the G33 proposal for 20 percent tariff lines to be designated as SPs is inadequate to protect the interest of Indian farmers<sup>22</sup>. Given the low levels of tariffs prevailing in the dairy sector and a limited number of tariff lines that can be protected using SPs, it is likely that very few tariff lines (if any) in dairy will be picked for protection by India. On the other hand, a higher level of SPs would be essential to protect domestic agriculture as the USA is insisting on steep tariff cuts through the four-banded reduction.

The use of Special Safeguard Mechanism (SSM) is another mechanism to protect Indian dairy against import and price surges. However the method for determining such surges based on three and five year moving averages is time consuming. Given the nature of people engaged in dairying in India, such long gaps before actual implementation of SSMs can wipe out these vulnerable dairy farmers. Another instrument – Sensitive Products – can be employed by the developed countries to protect their dairy sector and restrict imports from India.

While the above instruments to protect domestic producers are not working in India's favour, there is an additional factor that has a bearing on management of domestic supply of milk. Unlike industrial system of dairying in developed countries, India's dairy sector is driven by millions of individual households mainly landless and small/marginal farmers producing milk with around 1-2 heads of cattle (or buffaloes). As a result, the option of controlling domestic supplies by reducing the herd size through culling or increasing production by procuring lactating herds is not feasible in the Indian context.

### **Future of Indian Dairy Cooperatives**

In light of the above developments, it is quite clear that while the private sector dairy producers may survive in the new economic order, the prospect for dairy cooperatives

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<sup>22</sup> As per an analysis by Philips and Tripathi (2006), India needs to protect 57% of tariff lines in agriculture for development interest. *Source:* Linu Mathew Philip, and A.K. Tripathi, (2006) "Ensuring adequate flexibility through special product: A case study of India", Centre for Trade and Development New-Delhi, Working paper No. 06.

looks bleak. The series of reforms initiated in this sector have weakened the dairy cooperatives and are driving them out of the market. The private sector, on the other hand, is emerging stronger as it stands to gain from the enabling environment being created for them by the government. However, since the private sector does not share its profits with milk producers to the same degree as cooperatives, the ultimate loser in this scenario is the dairy farmer. Moreover, cooperatives are not a mere collection point for milk; they also provide a range of services to farmers that are never offered by the private sector. It needs to be reiterated that cooperative dairying is the least subsidized sub-sector in agriculture and helps the government earn revenues.

India's share in exports of dairy products in international market is insignificant. These markets are dominated by OECD countries, some of whom provide a very high level of support to their domestic producers which are unlikely to be scaled down in the near future. Their own markets are heavily protected through SPS and TBT clauses and animal welfare issues. Therefore, even if India is able to find fresh opportunities for exports, the gains may not be significantly high. Besides, with the strengthening of the Rupee against US Dollar likely to continue for some time, this would also impact income from exports. In any case, the possibility of India emerging as a competitive exporter of dairy products is based on results of these last few years and an examination on a medium or long term basis will be required to reach a definite conclusion.

While India may not be a significant dairy exporting country, it is a low-cost producer of milk and dairy products. Since the domestic demand for dairy products is growing, it can also turn into a dumping ground for subsidized exports, as was the case with Jamaica<sup>23</sup>. The dairy industry needs to be protected through lower tariff cuts and employment of SP/ SSM measures. Future of the dairy sector depends on the outcome of the ongoing negotiations on the Agreement on Agriculture. Unless India is able to extract a better deal on the rate of tariff cuts and number of tariff lines that it can protect, it would indeed be difficult for the dairy industry and, specifically, the dairy farmers to survive in the emerging trade scenario.

The strength of India's dairy cooperatives lies in the domestic market. It can easily sustain itself on this for times to come provided the government provides suitable protection from subsidized imports. Income levels in urban India are going up and households spend 68 percent of their income on self-consumption. This is an important source of strength for the domestic dairy cooperatives. It is in this segment where better supply management and improvement of quality can help cooperatives gain a better market share. However, the unequal competition being fostered by the government by promoting the private sector in dairy at the cost of cooperatives is a serious matter of concern. The export-oriented approach to growth in the dairy sector that is being followed by the government is at the cost of welfare of dairy farmers.

Unless support to the cooperative dairy sector is enhanced, the National Dairy Plan's aims to consolidate the stake of the cooperative sector in dairying by 2022 will fail. Instead, the Plan will end up spending the budgeted Rs. 195 billion to benefit the private dairy sector which is targeting very narrow segments of exports and emerging

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<sup>23</sup> United Nations Development Programme (2003) European Dumping of Milk Powder in Jamaica. *In* Making Global Trade Work for People. Earthscan Publications Ltd. 121p

urban markets. The government needs to support dairy cooperatives survive in the new economic order by coming up with policy prescriptions aimed at generating enough surpluses at low cost, and also maintain due quality standards. Instead of introducing policies that dismantle cooperative dairying, the government can maximize welfare of millions of farmers by strengthening the cooperatives. After all, we should not forget the words of the architect of India's White Revolution, Dr. Verghese Kurian: aim of the Indian dairy movement is to develop the dairy farmer, not the dairy animal.