

Case study 4
India
Amul/National Dairy Development Board
(Amul/NDDDB)

Total cost:	NA
Financier	Government
Year of establishment:	1946
Value chain approach:	Relational chain, producer-driven

Although Amul and NDDDB are presented as one case study, they are in fact two separate chains that compete with each other under their respective brand names: Amul and Mother Dairy.

Background. Amul derives its name from a Sanskrit word, *Amoolya*, which means “priceless”. It is the biggest dairy cooperative in India, based in Anand, in the state of Gujarat. It had its genesis in pre-independence India when the dairy sector was dominated by private companies that exploited the poor farmers. In 1946, the milk producers in the state of Gujarat, led by Sardar Vallabhai Patel, started developing revolutionary ideas against the privately owned Polson dairy and established the first cooperative society: the Kaira District Cooperative Milk Producers’ Union Limited (KDCMPUL). The motto “No Cooperation, No Progress!” started spreading very fast and milk was used as a symbol of protest against British hegemony, through a 15-day farmers’ strike. Amul is the foremost dairy brand name in India and has held its position against competition from international giants such as Nestle.

Intervention. Patel’s vision was to organize the farmers to enable them to gain control over procurement, processing and marketing while eliminating the middlemen. Amul started with 2 village societies and 247 liters of milk collected per day. The movement grew and, in 1973, the Gujarat Cooperative Milk Marketing Federation (GCMMF) was established, an apex organization responsible for marketing the milk and milk products of cooperative unions in the state of Gujarat. In the ‘80s the word Amul was converted into a brand. Currently, in the state of Gujarat, Amul produces 10.16 million liters of milk daily, which is collected from 2.7 million farmers, processed through 30 dairy plants, and distributed through 500,000 retail outlets. The annual sales turnover has reached USD 1,504 million (2008-2009).

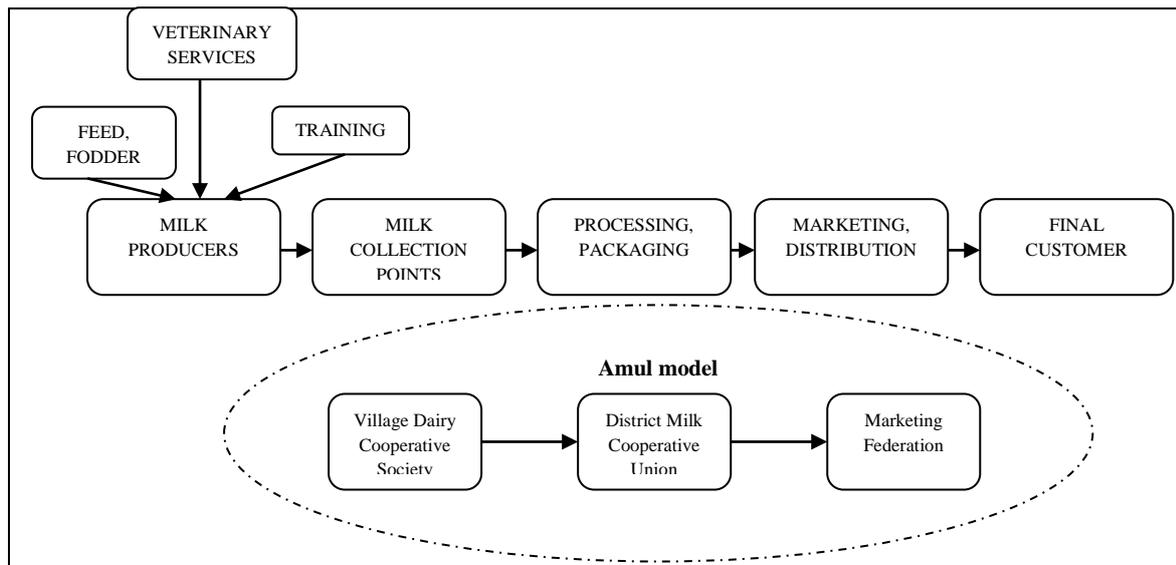
The Amul model became so successful that it was replicated in the ‘70s, after the government recognized the importance of milk cooperatives as a means of promoting socio-economic development in rural areas while simultaneously increasing milk production in India. The National Dairy Development Board (NDDDB) launched the Operation Flood programme (OF) to create a nationwide milk grid. During the 26 years from 1970 to 1996, OF established linkages between rural milk producers and urban consumers by organizing farmer dairy cooperative societies. An investment of USD 439 million has generated an incremental return of USD 8.778 billion. OF was one of the world’s largest rural development programmes that: “helped dairy farmers direct their own development, placing control of the resources they create in their own hands. A National Milk Grid links milk producers throughout India with consumers in over 700 towns and cities, reducing seasonal and regional price variations while ensuring that the producer gets fair market prices in a transparent manner on a regular basis”¹. Dr. Varghese Kurien, a dairy engineer who was chairman of NDDDB at that time, was the architect of the OF programme and is considered the father of India’s “White Revolution”.

The Amul model. Under the model, the entire value chain –from procurement, to processing and marketing – is controlled by the farmer’s cooperative, which is directly linked to the final customer

¹ <http://www.nddb.org/aboutnddb/operationflood.html>

(see Figure 1). There are no middlemen; the cooperative collects the milk directly at the producers' doorsteps. The model envisages that democratic elections are held every three years, to elect the members of the management committees who, in turn, elect the chairman. This ensures an active participation of farmers in decision-making, as well as transparency and democratic management. Membership is open to anyone who owns at least one cow and is able to provide at least 700 litres of milk per year. The final price of Amul products are decided by GCMMF, which conducts market surveys on aspects including the costs of milk, labour, processing, packaging, advertising, transportation and taxes.

Figure 1: Amul value chain and model



Impact on the target group. The intervention has reached a total of 13 million households all over India. Even the smallest producer, producing only 2 litres a day, can benefit from the programme. Farmers receive 80% of the retail price through up-front payments when the milk is sold and subsequent distribution of profits as corporate members, i.e.: for every INR 1 sold (USD 0.022), INR 0.80 (USD 0.017) goes to the farmer and INR 0.20 (USD 0.0043) towards the cooperative's administrative costs. There has been substantial social impact with cooperative members succeeding in demanding services like roads, schools, health centers in their communities, by acting together as a society.

The case of a young milk producer: Dolly Patel².

Discussions held with a milk producer, Dolly Patel, 19-year old, female, in Navli village, gave an insight of the socio-economic scenario in that village. The level of education appears to be high in the village, with younger generations even attaining master degrees. Dolly Patel's family owns 3.5 acres of land, and Dolly personally owns a cow that produces an average of 10 litres per day; the milk is sold to the Navli Milk Producers' Cooperative Society Ltd. Estimates show a daily profit of USD 3, consideration taken of: daily production costs of USD 0.43 per cow and USD 0.35/litre farm-gate price. This implies a yearly profit of USD 1,106 for Dolly Patel; this is partly saved, and partly used to contribute towards family expenses.

Dolly Patel, beneficiary interviewed during the field mission.

² Source: beneficiary interviewed during field mission.

Impact on women and minorities. The Amul dairy cooperatives have given women some measure of economic independence, empowering them to participate more actively in household decision-making. Women in rural India are traditionally responsible for 60 to 80% of the dairy-related activities, and usually the owners of cows and buffaloes. Discussions with project beneficiaries revealed that women are involved mainly in the primary production stage of the chain, while men usually dominate other stages of the chain, such as marketing and processing. Figures show that numbers of female cooperative members have increased from 0.22 million in 1981 to 3.7 million in 2008.

Key features

Effective governance. In the Amul model, farmers own the company that controls the post-production stages of procurement, processing, and marketing of milk and milk products. Democratic elections are held every three years to elect members of the management committees who then elect their chairman. This ensures active participation of farmers in decision-making, transparency, and democratic management. Membership in the cooperative is open to all farmers who own a cow and are able to provide an annual supply of 700 liters of milk.

Coordinated delivery of services. These include technical support, collection, market access and brand name development and distribution. Amul provides support for animal husbandry, breeding services and veterinary services. It operates an animal feed factory, makes its own milk cans, and appropriate vehicles to ensure the right temperature and humidity. An agriculture university and a rural management institute are also part of the Amul set-up. In the event of droughts, Amul also subsidizes animal feed.

Value added/Vertical integration. Amul is vertically integrated from production to retail.

Information flow. Procurement prices are announced in advance and variable according to fat content. Amul was one of the first major organizations in India to create a website in 1996, to facilitate communications amongst producers, distributors and consumers. One of Amul's members, Banas Dairy, has also started a unique project involving the establishment of information kiosks in each village for internet and e-governance activities within the cooperative. Villagers use the kiosk to obtain official forms, agriculture and veterinary details.

Trust. Trust has been established through farmers' participation in the ownership of the enterprise and through transparency with regard to business transactions, elections, etc.

Horizontal integration. The company is owned by the farmers' cooperatives.

Policy/Enabling measures. The initial Government intervention played a significant role in facilitating the development of the dairy industry.

PPP. Substantial support has been provided by Government, which initially financed the project by recycling the profits from the sale of imported powdered milk. The funds were used to develop the dairy industry, including NDDB, which received over 50% of the funding in grants.

Diversification. Amul is a dairy chain with a broad range of end products (i.e. milk, ice cream, ghee and many others).

Capacity building. There is considerable focus on capacity building.

Infrastructure. Infrastructure is not financed by Amul. However, the cooperative members have been able to put pressure on local politicians to provide financing for water, roads, schools, etc.

Chain efficiency/Competitiveness. Amul established a direct linkage between milk producers and consumers by eliminating the middlemen. Production and marketing functions have been integrated along the chain, reducing transaction costs for farmers. Amul has been accredited with 9001 and HACCP certifications.

Inputs. Members are provided with animal feed.

Technology transfer. The installation of 4,000 Automatic Milk Collection Units at Village Dairy Cooperative Societies is used to collect information on animals, milk fat content, volumes, and amounts payable to each member. This information is also used with the objective of improving the breed.

Market linkages. The chain is fully integrated, from the producers to the retail outlets.

Sustainability. Amul is now a well-established company, entirely owned by over 2.5 million milk producers. It is managed by professional managers who have a strong track record of innovation in marketing, manufacturing and logistics.

Driving success factors. The success of the model was heavily determined by substantial government support and very dedicated management.

Drawbacks. There has been criticism that not enough attention has been paid to women. For this reason, both Amul and NDDB are currently trying to address gender issues and forming women cooperatives.

Sources:

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- Operation Flood, National Dairy Development Board, <http://www.nddb.org/aboutnddb/operationflood.html>