

## **From Deficit to Surplus : Transformation of Dairy Sector in India**

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*Making of a nation requires valuable contributions in various fields of the country by visionaries. Dr. Verghese Kourien contributed towards the betterment of farmers selling Milk. The paper discusses the history and success of 'Amul', the largest dairy of Asia. 'Amul' is the dairy based on the principle of cooperation and is having a grand success in its operation. It transformed not only the lives of the farmers in the Kaira district of Gujarat but caused so much of increase in milk and milk products that India became the largest milk producing country in the world from a milk deficient country. The paper focuses on the valuable contribution made by Dr. Verghese Kourien through his vision and hard work. The phases of 'operation flood' are discussed in the paper with the achievements in every phase. The paper throws light on the criticism faced Dr. Kourien and 'operation flood' and*

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*concludes that Dr. Kourien was able to transform the dairy industry of India so was a maker of modern India.*

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## **1. Introduction**

Making of a nation requires valuable contributions in various fields of the country by visionaries. Dr. Varghese Kurien devoted his whole life for the betterment of the poor farmers and the country as a whole. 'Amul' the cooperative dairy of India was a grand success due to vision and hard work of Dr. Kurien. He was given the responsibility of replicating 'Anand' pattern of dairy known as 'Operation flood' all over the country by the then Prime Minister Lal Bahadur Shastri. Dr. Kurien faced many obstacles due to non-cooperation of state governments in raising funds for the project. Still he successfully launched the project without taking financial help of the government of India and states of the country. The project was not successful in the initial period. Dr. Kurien had to face severe criticism also but country experienced fruits of 'Operation Flood' and it transformed the dairy industry of the country.

## **2. The History and Success of 'Amul'**

Mr. Pstonji Edulji, who was having monopoly in milk procurement and supply to the British government of Bombay, exploited the farmers selling milk in the Kaira district of Gujarat. Therefore, a dairy cooperative movement in the Kaira district started under the guidance and leadership of Sardar Vallabhabhai Patel, the iron man of India and Tribhuvandas Patel, vice president of the Kaira district congress committee. Soon a cooperative in each village and the union of these cooperatives named, Kaira District Cooperative Milk Products Union Limited established in Anand in 1946. The government gave a part of research creamery to this union. Dr. Verghese Kurien, after leaving the government job as an engineer in the creamery was appointed as a general manager of the Union in 1950 officially. Dr. Kurien had an idea of new modern dairy. Dr. Kourien and Mr. Dalaya an engineer in KDCMPUL demonstrated how milk powder can be made from buffalo milk to United Nations Children's Fund which was not done anywhere in the world. UNICEF donated a Larson and Toubro powder plant to Kaira Union. For the first time in the country's history, the farmers had their own dairy and registered

it as 'Amul' in 1957. Amul started making milk powder and butter also. Dr. Kurien requested the government to cut the import of butter up to 67.5% to increase the demand for domestic producers. The government accepted it. In 1964, the Kaira Union established New Cattle Feed Compound Factory at Kanjari near Anand.

In late fifties, the Union started providing artificial insemination services. This service reduced the dry period of buffaloes and cows. 'Amul' was the largest dairy in Asia. The union started its mobile veterinary services with radiotelephones to render animal health care at the farmers' doorsteps to increase milk productivity.

### **3. Operation Flood**

Lal Bahadur Shastri the then prime minister of India visited Anand and was impressed the way 'Amul' was working. He asked Dr. Kurien to replicate 'Amul' all over the country. A national Dairy development Board was created making Dr. Kurien as a chairman of it. The government of Gujarat gave the responsibility of building three cattle-feed plants to Dr. Kurien. NDDB got the technical and managerial competence of Kaira cooperative. In the early years, the NDDB had income but no expenditure. NDDB was created without the help from government. Dr. Kurien. was not getting salary from the government Dr. Kurien realized that states were not ready to release funds for replicating Anand as they were not sure of the success of 'Amul' pattern in other states than Gujarat. Therefore, 'Amul' gave the governments Rs 5 Crs to create an Anand on the condition that the state had to take care that village cooperatives are organized and milk was collected through cooperative structure. The 'Amul' team gave the name 'Operation Flood' to this project.

In 1960s, The European Economic Community was looking for a solution to their surpluses of milk powder and butter oil. The Amul team proposed to donate milk products of these countries to protect high yielding cattle resettlement of city kept cattle and to obtain a large share of the market for the liquid milk schemes in four major Indian cities. This project was known as the 'Billion Liter Idea'. Dr. Kurien suggested that EEC should donate the commodities to NDDB, which would sell them to raise funds for operation flood and 10% of imports of milk products from EEC, would be allowed in the country. The World Food Programme accepted the proposal.

In 1970, the government of India set up a new public sector company the Indian Dairy Corporation under the chairmanship of

Dr. Kourien to receive the gifts generated funds and disburse the funds to implement 'Operation Flood'. In 1970, NDDDB officially launched the 'Billion-Liter Idea'. The gifts worth 37000 tones of milk powder and 11000 tones of fat were 1% of the milk production of the country. Dr Kurien requested the government to make NDDDB or IDC to be the official canalizing agency for the import of milk powder, which was accepted. All the manufacturers had to cut their imports of milk Products by 25% every year as suggested by Dr. Kurien. Thus, all the manufacturers had to start procuring the milk they needed within the country in four years.

## **4. Phases of Operation Flood**

### **4.1 Phase-I (1970 to 1981)**

It was hoped to complete in five years but took five more years. The phase was financed by the sale of gifts by EEC through the world Food Programme. During this phase, 18 main milk sheds were connected to the consumers of four major cities of Delhi, Bombay, Calcutta and Madras. It covered 17.47 lakh farmer families. Milk procurement was 57.8 lakh liter per day. The main objectives of this phase were commanding share of milk market and speeding up development of dairy animals like hinterlands of rural area.

### **4.2 Phase-II (1981-1985)**

This phase was implemented with the seed capital raised from the sale gifts and a World Bank loan of Rs 200 crores. In this phase, the number of milk sheds increased to 136. The number of village dairy societies increased from 13270 to 34523. It covered 36.3 lakh families. Milk procurement was 57.8-lakh liter per day. Milk powder productivity increased from 22000 tons in 1971 to 102000 tons at the end of the second phase.

### **4.3 Phase-III (1985 to 1996)**

It added 30000 new dairy cooperatives. Milk procurement was 93.9-lakh liter per day. It covered 79.3-lakh farmer families. 170 milk sheds were covered. In this phase the number of women members and women's cooperative societies increased considerably. Emphasis was given on research and development in animal health and animal nutrition. Dr. Kurien found that milk cooperatives started competing against one another to avoid this the Gujarat Cooperative Milk Marketing Federation was established in 1973. Dr.

Kurien was made chairman and managing director of the Federation. Then he quit as a general manager of 'Amul'

In 1998, the World Bank published a report of the impact of dairy development in India and its own contribution to it. They found that Rs. 200 crores the World Bank invested in Operation Flood India got returns of 24000 crores each year over a period of 10 years. No development program before or since had this input output ratio.

## **5. Criticism on 'Operation Flood'**

Operation flood was criticized on the ground that extra power was vested in the hands of NDDDB and Dr. Kurien. However, steps taken by Dr. Kurien reduced imports of milk products in a phased manner, which saved foreign currency and increased demand thereby production of milk products in the country.

Canalizing imports of milk powder through NDDDB saved foreign currency due to the skillful bargaining of it, which was necessary for reducing cost of 'operation flood', as Dr. Kurien did not get finance from the government for the project. A point of criticism was made that in a country like India which did not have enough food to eat and was importing food grains having high growth rate of population might not afford to divert land from food production to feed production. However, Dr. Kurien focused on research that fodder and feed should not be specially produced for the animals but be produced in the process of producing food for human beings. Another argument was that milk consumption of only city dwellers increased as the milk was transported to the cities. When the income of the rural population increased, overall food consumption of rural population increased. The poor farmers naturally having the temptation to sell milk than consume does not mean that they should not sell milk to raise their living standard. Another point of criticism was made that the focus on operation flood ignored other areas of agricultural sector. In the first phase, the project was launched at the cost of 'Amul' and the gifts of EEC. In the second phase, it was implemented with the help of the World Bank. The government of India did not have burden of financing 'Operation Flood'. Another argument was that milk was not such a necessity and India would not afford animal products. As could be seen from the statistics that the increased production of milk products was absorbed by the market in India. It means India also had a market for milk products.

## 6. Conclusion

Operation flood was controversial in the initial period of its launching and after completing all the phases. Still it can be seen from the statistics that it made India from a milk deficient economy to the world's largest producer of milk. Dr. Kurien using the surpluses of developed countries, saved countries resources. He was successful in reducing the poverty of farmers by generating employment opportunities in the rural area, increasing their income by allowing fair price for the milk and by increasing and absorbing the whole production of milk by a perfect marketing system. The operation flood was a grand success as India achieved food security in terms of milk through Operation Flood. The Milkman of India, Dr. Verghese Kurien had a valuable contribution in developing the backward sector of the nation so his role in making of India will always be remembered by the Indians.

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