



## Amul a Pillar of India's Dairy Sector

**For Prelims:** Anand Pattern, White Revolution, National Dairy Development Board (NDDB), [World Food Programme](#), [Rashtriya Gokul Mission](#), [National Livestock Mission](#)

**For Mains:** Role of dairy and livestock sector in Indian economy, Related issues and Initiatives taken to promote the sector.

**Source:** [PIB](#)

### Why in News?

The Prime Minister participated in the Golden Jubilee celebration of the **Gujarat Cooperative Milk Marketing Federation (GCMMF)** and highlighted the success of **Anand Milk Union Limited (Amul)** which comes from GCMMF.

### What is the History of Amul?

- Amul was established in 1946 as the Kaira District Co-operative Milk Producers' Union Limited in Anand, Gujarat.
- It was founded by **Tribhuvandas Patel**, with the support of [Morarji Desai](#) and [Sardar Vallabhbhai Patel](#).
- In 1950, Amul (Anand Milk Union Limited) was formed as a brand for the dairy products produced by the cooperative.
- Amul is managed by the GCMMF, which is jointly owned by more than **3.6 million milk producers in Gujarat**.
- Amul pioneered the **adoption of the Anand Pattern**, an economic organisational model designed to **empower small producers through collective action**.
  - This approach fosters integration among producers, enabling economies of scale while **preserving individual autonomy in decision-making**.
- Amul's success story garnered international attention, becoming a case study in cooperative economics and rural development.
- Amul played a pivotal role in **India's White Revolution**, which aimed to increase milk production and make India self-sufficient in milk.
  - Amul spearheaded the White Revolution in India, starting with the introduction of **milk powder manufacturing** in 1955.
- Amul products are now exported to over 50 countries, with a network of over 18,000 milk cooperative committees and over 36,000 farmers. Processing over 3.5 crore litres of milk daily, Amul also facilitates online payments exceeding Rs 200 crores to livestock breeders.

### What is India's White Revolution or Operation Flood?

- **Background:**
  - The **National Dairy Development Board (NDDB)**, chaired by [Vergheese Kurien](#) ('**Father of White Revolution in India**'), was established in 1965 to revolutionize India's dairy

industry. Inspired by the successful "**Anand Pattern**", NDDB launched the **White Revolution, also known as Operation Flood** in 1970, connecting rural milk producers with urban consumers through dairy cooperatives.

- This initiative transformed **India into the world's largest milk producer**, significantly boosting milk production and improving its management efficiency.
- Operation Flood transformed the **dairy-deficient nation into the global leader in milk production**.
- The nationwide **Operation Flood unfolded in three phases** over three decades.
- **Phases of Operation Flood:**
  - **Phase I (1970-1980):**
    - Financed by the sale of skimmed milk powder and butter oil gifted by the **European Union** (then European Economic Community) through the [World Food Programme](#).
    - Operation Flood linked 18 milksheds with consumers in major metropolitan cities.
    - Initiated the foundation of a self-sustaining system of village cooperatives.
  - **Phase II (1981-1985):**
    - Increased milksheds from 18 to 136 and expanded outlets to 290 urban markets.
    - Established a self-sustaining system of 43,000 village cooperatives, covering 4.25 million milk producers.
    - Significantly increased domestic milk powder production, promoting self-reliance.
  - **Phase III (1985-1996):**
    - Enabled dairy cooperatives to expand and strengthen infrastructure for procuring and marketing milk.
    - Emphasised veterinary healthcare services, feed, and artificial insemination.
    - Added 30,000 new dairy cooperatives and peaked milksheds to 173 in 1988-89.
- **Post-Operation Flood:**
  - In 1991, India underwent [liberalisation, privatisation and globalisation reforms](#), allowing for private participation in various sectors, including dairy.
    - **Foreign equity of up to 51% was allowed in milk products**, except for malted products.
  - The initial phase saw the proliferation of unregulated dairies, leading to concerns of adulterated and contaminated milk.
  - The **Milk and Milk Products Order (MMPO)** was instituted in 1992 to regulate the sector and introduce oversight.
    - MMPO is a regulatory order of the Government of India that regulates the production, supply, and distribution of milk and milk products. The MMPO was promulgated under the provisions of the [Essential Commodities Act, 1955](#).
      - The order's objective is to maintain and increase the supply of milk and milk products.
  - The industry witnessed significant growth in processing capacity, primarily driven by large private players.
- **Current Milk Production:**
  - India is the **highest milk producer** i.e., ranks first position in the world contributing twenty-four percent of global milk production in the year 2021-22.
  - In the last 10 years, milk production increased by almost 60% and per capita milk availability has increased by about 40%.
    - The top 5 milk-producing states are Rajasthan, Uttar Pradesh, Madhya Pradesh, Gujarat and Andhra Pradesh.
  - The Indian dairy sector is growing by 6% per year as compared to the global average of 2%.
  - India's Export of Dairy products was 67,572.99 Metric Ton (MT) to the world worth USD 284.65 Mn during the year 2022-23.

## What are the Initiatives Related to the Dairy Sector?

- [Animal Husbandry Infrastructure Development Fund \(AHIDF\)](#).
- [National Programme for Dairy Development](#).
- [Pradhan Mantri Kisan Sampada Yojana](#)
- [Kisan Credit Cards \(KCC\) to Livestock Farmers](#)

- [Rashtriya Gokul Mission](#)
- [National Livestock Mission](#)

## What are the Challenges Faced by the Indian Dairy Sector?

- **Low Milk Yield:**
  - **Milk yield per animal** in India is significantly **lower than the global average**. This can be attributed to factors like poor quality feed and fodder, traditional cattle breeds, and lack of proper veterinary care.
- **Issues in Milk Collection and Processing:**
  - Challenges in **collection, pasteurization, and transportation** of milk pose significant hurdles, particularly in ensuring safe milk handling in informal dairy setups.
- **Adulteration Concerns:**
  - **Adulteration of milk remains a persistent** issue due to difficulties in quality control.
- **Profit Disparities:**
  - Milk producers often receive **low purchase prices** compared to market rates, leading to disparities in profit distribution within the value chain.
- **Cattle Health Challenges:**
  - Frequent **outbreaks of diseases** like [Foot and Mouth Disease](#), Black Quarter infection, and Influenza significantly impact livestock health and lower productivity.
- **Limited Crossbreeding Success:**
  - Crossbreeding indigenous species with exotic stocks to improve genetic potential has **achieved limited success**.

## Way Forward

- **Strengthening veterinary care**, promoting quality feed and fodder, and implementing robust quality control measures are essential to **address productivity and health challenges**.
- Enhancing infrastructure for milk collection, processing, and transportation will help streamline operations and ensure safe milk handling.
- Emphasizing research and development in genetics, nutrition, and disease management will be crucial for enhancing milk yield and animal health.
- Promoting **farmer cooperatives and incentivizing sustainable** practices can empower small-scale producers and ensure equitable growth across the dairy value chain.

## UPSC Civil Services Examination, Previous Year Question (PYQ)

### Prelims

**Q.1 Consider the following crops of India: (2012)**

1. Cowpea
2. Green gram
3. Pigeon pea

**Which of the above is/are used as pulse, fodder and green manure?**

- (a) 1 and 2 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

**Ans: (a)**

### Mains

**Q.1** Livestock rearing has a big potential for providing non-farm employment and income in rural areas.

Discuss suggesting suitable measures to promote this sector in India. **(2015)**

**Q.2** The concept of cooperative federalism has been increasingly emphasized in recent years. Highlight the drawbacks in the existing structure and the extent to which cooperative federalism would answer the shortcomings. **(2015)**

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