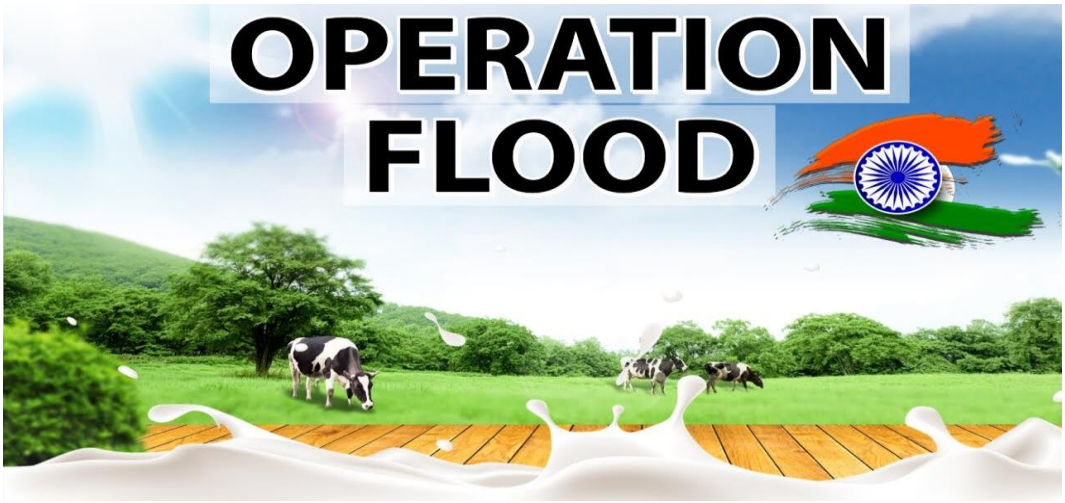
A NEW WHITE REVOLUTION

Why in News?

- On Thursday, Union Home and Cooperation Minister Amit Shah announced plans for "White Revolution 2.0".

OPERATION FLOOD

- Launched in 1970, ushered in the White Revolution and transformed the dairy sector in India.
- Dr Verghese Kurien is known as the father of The White Revolution in India.
- 

Operation Flood's objectives included:

- Increase milk production ("a flood of milk")
- Augment rural incomes
- Reasonable prices for consumers

The operation flood was launched in three phases:

- Phase I (1970–1980)
- Phase II (1981–1985)
- Phase III (1985–1996)

About White Revolution 2.0

- The idea of White Revolution 2.0 revolves around cooperative societies, which were also the bedrock of Operation Flood five decades ago.
- Dairy cooperatives **procured 660 lakh kg of milk per day in 2023-24**; the government wants to increase this to **1,007 lakh kg/day by 2028-29**.
- For this, it has formulated a strategy of expanding coverage and deepening the reach of cooperatives.
- The bulk of ***the funding*** for White Revolution 2.0 will come through the **National Programme for Dairy Development (NPDD) 2.0**,
- It is a **central sector scheme** under the **Department of Animal Husbandry and Dairying.**
- Under the scheme, financial assistance will be provided to setup **village-level milk procurement systems**, chilling facilities, and training and capacity-building.
- "Assistance will be provided to **1,000 Multipurpose Primary Agricultural Credit Cooperative Societies (MPACSs**) at the rate of Rs 40,000 per MPACS from the resources of NDDB.

Significance:

The New White Revolution, often referred to as "Operation Flood," will further transform India's dairy sector. Its significance includes:

1. White Revolution 2.0 will "increase milk procurement of dairy cooperatives by 50%...over the next five years by providing market access to dairy farmers in uncovered areas and increasing the share of dairy cooperatives in the organized sector".
2. This will also generate employment and contribute to the **empowerment of women in the process.**
3. **Increased Milk Production**: The program significantly will boost milk output, making India one of the largest milk producers in the world.

4. **Cooperative Model**: The establishment of dairy cooperatives empowered farmers, providing them direct access to markets and fair prices.
5. **Nutritional Security**: Increased milk availability will contribute to better nutrition, particularly for children and women.
6. **Infrastructure Development**: Improved infrastructure for collection, processing, and distribution of milk enhanced efficiency and market reach.
7. **Economic Growth**: The new step will further significantly contribute to India's agricultural GDP, supporting overall economic growth.

India's dairy sector:

- According to the **National Dairy Development Board (NDDB**), the regulator of the dairy industry in India, dairy cooperatives operate in around 70% of the country's districts.
- There are about **1.7 lakh dairy cooperative societies (DCSs)**, which cover around 2 lakh villages (30% of the total number of villages in the country), and 22% of producer households.
- These cooperative societies **procure about 10% of the country's milk** production and 16% of the marketable surplus.
- In the states of **Gujarat, Kerala, and Sikkim**, and the Union Territory of **Puducherry,** more than 70% of villages are covered by dairy cooperatives.
- In the states of **Uttar Pradesh, Uttarakhand, and Madhya Pradesh, and the UT of Jammu & Kashmir**, however, coverage is only 10-20%.
- And in **West Bengal, Assam, Odisha, Jharkhand, Chhattisgarh, Himachal Pradesh**, and the smaller states of the Northeast, **less than 10% of villages are covered.**
- Coverage, funding NDDB has drawn up an action plan to establish about 56,000 new multipurpose dairy cooperative societies over the next five years, and to strengthen 46,000 existing village level DCSs by providing more advanced milk procurement and testing infrastructure.
- Most of the **new DCSs** will be established in **Uttar Pradesh, Odisha, Rajasthan, and Andhra Pradesh.**

- In February 2023, **NDDB launched a Rs 3.8 crore pilot project** to setup dairy cooperatives in uncovered gram panchayats in the districts of **Jind** (Haryana), **Indore** (Madhya Pradesh), and **Chikmagalur** (Karnataka).
- The 79 DCSs established as part of the pilot are together procuring 15,000 litres of milk per day from about 2,500 farmers.

Milk scenario in India

- India is the **world's top milk producer**, with production having reached 230.58 million tonnes during 2022-23.
- In 1951-52, the country produced just 17 million tonnes of milk.
- The **average yield** is, however, **only 8.55 kg per animal per day** for exotic/crossbred animals, and 3.44 kg/ animal/day for indigenous/ nondescript animals.
- The **yield in Punjab is** 13.49 kg/animal/day (exotic/crossbreed), but only 6.30 kg/animal/day in **West Bengal**.
- The **national per capita availability of milk is 459 grams/day**, which is higher than the global average of 323g/day; this number, however, varies from 329g in Maharashtra to 1,283g in Punjab.
- As per the **Basic Animal Husbandry Statistics (BAHS) 2023**, **the top five milk pro ducing states are**:

✓ **UP (15.72%),**
✓ **Rajasthan (14.44%),**
✓ **Madhya Pradesh (8.73%),**
✓ **Gujarat (7.49%), and**
✓ **Andhra Pradesh (6.70%),**
✓ Which together rcontribute 53.08% of the country's total milk production.

- Almost **31.94%** of the total milk production comes from **indigenous buffaloes**, followed by 29.81% from cross bred cattle.
- Nondescript buffaloes contribute 12.87%, indigenous cattle 10.73%, and nondescript cattle 9.51%, according to BAHS figures.
- The share of goat milk is 3.30%, and that of exotic cows, 1.86%.

- While total milk production increased from 187.75 million tonnes in 2018-19 to 230.58 million tonnes in 2022-23, the annual growth rate of production came down from 6.47% to 3.83% during this period.
- The milk group, comprising milk consumed or sold in liquid form, ghee, butter, and lassi produced by producer households contributed almost 40% (Rs11.16 lakh crore) of the value of output from the agriculture, livestock, forestry, and fishing sector in 2022 23—much higher than cereals.
- The dairy sector provides livelihoods to more than 8.5 crore people directly or indirectly, of whom the majority are women.
- About 63% of the total milk production comes to the market; the remaining is kept by producers for their own consumption.
- About two-thirds of the marketable milk is in the unorganized sector.
- In the organized sector, cooperatives account for the major share

The Dairy Industry in India: significance and concerned challenges

Significance:

1. **Economic Contribution**: The dairy sector is a vital part of India's agricultural economy, contributing significantly to GDP and providing employment to millions, especially in rural areas.
2. **Nutritional Value**: Dairy products are crucial for nutrition, providing essential proteins, vitamins, and minerals. They help combat malnutrition, particularly in children.
3. **Livelihoods**: Millions of smallholder farmers depend on dairy farming for their livelihoods, making it a key component of rural development.
4. **Women Empowerment**: The dairy sector often empowers women by providing them with income-generating opportunities, thereby enhancing their social status.
5. **Value Addition**: The processing of milk into various dairy products creates additional economic opportunities and increases shelf life.

The dairy industry in India faces several challenges:

1. **Infrastructure Deficiencies**: Inadequate infrastructure for milk storage, transportation, and processing can lead to significant post-harvest losses.
2. **Quality Control**: Ensuring quality and safety standards in milk production is challenging, leading to issues with adulteration and health risks.
3. **Market Access**: Small farmers often struggle to access markets and fair prices, which can be exacerbated by middlemen.
4. **Feed and Fodder Scarcity**: Limited availability of quality feed and fodder can affect milk production and animal health.
5. **Climate Change**: Variability in weather patterns and extreme weather events can impact livestock health and productivity.
6. **Technological Gaps**: Many dairy farmers lack access to modern technology and practices that could improve productivity and efficiency.
7. **Policy Support**: While there have been government initiatives, inconsistent policies and support can hinder growth and development in the sector.
8. **Resource Management**: Water scarcity and land degradation pose challenges for sustainable dairy farming.
9. **Competition**: The rise of private dairies and multinational companies increases competition, which can pressure small farmers.
10. **Labor Issues**: A shortage of skilled labor and the migration of rural youth to urban areas impact dairy farming operations.
11. **Regulatory Hurdles**: Compliance with various regulations can be challenging for small-scale producers.
12. **Consumer Awareness**: Increasing consumer demand for organic and high-quality products requires adaptation in production methods

Conclusion

Addressing these challenges while leveraging the sector's significance can enhance the sustainability and profitability of the dairy industry in India, ultimately benefiting farmers, consumers, and the economy as a whole.