



White Revolution 2.0

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Why is in news? How to bring about White Revolution 2.0

The government's latest **Household Consumption Expenditure Survey (HCES) for 2022-23** shows **milk** emerging as India's top food spend item, both in rural and urban areas.

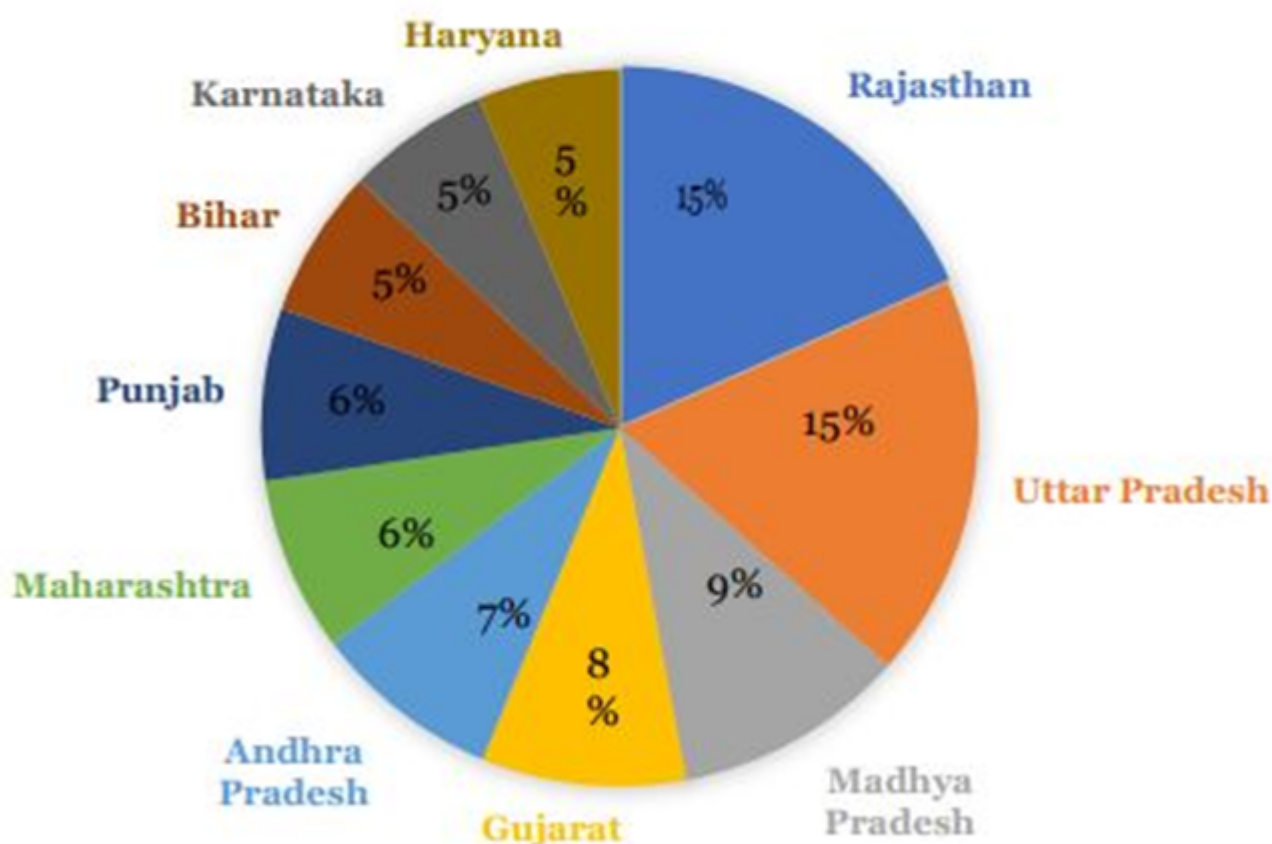
Dairy Sector in India:

Dairy is the **largest agricultural commodity** in India, contributing **5% to the national economy** and employing over 8 crore farmers directly.

India ranks **1st in milk production** and accounting for 23% of global milk production.

Milk production **has increased by 51.05% in the past eight years**, reaching 221.06 million tonnes in 2021-22.

Figure 2: Top 10 Milk Producing States



Milk production is growing at the annual growth rate of 6.1% over the past 8 years whereas world milk production is growing at 1.2% per annum.

Per capita milk availability in India is 444 grams per day, surpassing the world average of 394 grams per day.

White Revolution:

Operation Flood is the program that led to “White Revolution.”

It created a **national milk grid linking producers throughout India** to consumers in over 700 towns and cities and reducing seasonal and regional price variations while ensuring that producers get a major share of the profit by eliminating the middlemen.

At the bedrock of Operation Flood stands the **village milk producers’ co-operatives**, which procure milk and provide inputs and services, making modern management and technology available to all the members.

The revolution associated with a sharp increase in milk production in the country is called the White Revolution in India also known as Operation Flood.

White revolution period intended to make India a self-dependent nation in milk production. Today, India is the world’s largest producer of milk and **Dr Verghese Kurien** is known as the **father of the White Revolution in India**.

He was also the **founder of Amul**, the largest milk producer in India.

National Dairy Development Board was introduced Operation Flood to **create a national grid** that could streamline the production and distribution of milk across the country.

Objectives of White Revolution in India:

Creating a flood of Milk by Increase production

Increase the incomes of the rural population

Provide milk to consumers at fair prices

Significance of Operation Flood:

The White Revolution in India **helped in reducing malpractice by traders and merchants**.

It also **helped in eradicating poverty** and made India the largest producer of milk and milk products.

It **empowered the dairy farmers** with control of the resource created by them. It helped them in directing their own development.

To **connect milk producers with the consumers** of more than 700 cities and towns and throughout the country, a ‘**National Milk Grid**’ was formed.

The revolution also **reduced regional and seasonal price variations** ensuring customer satisfaction and at the same time. Also, it ensured that the producers get a major share of the price that customers pay.

Improved the living standards of the rural people and led to the progress of the rural economy.

Need of white revolution 2.0:

Inflation: The all-India modal price of milk has risen significantly, from Rs 42 to Rs 60 per litre over the last five years.

Reduction in demand: Higher prices may result in consumers cutting back on their milk consumption, impacting the overall demand for dairy products.

Increased production cost: The costs associated with fodder, feed, and raw materials have seen a significant increase, prompting dairies to raise procurement prices paid to farmers.

Impact on consumers: Inflation and increased production cost falls on consumers, as there is a limit on how much more consumers can pay for milk before it causes demand destruction.

Steps taken by India to promote milk production:

Rashtriya Gokul Mission: It was initiated in 2014 with a focus on the conservation and development of indigenous breeds and improve their genetic makeup.

E-PashHaat: An e-market portal connecting breeders and farmers to provide quality- disease free bovine germplasm.

PashSanjivni: An Animal Wellness Programme with the provision of animal health cards along with UID identification.

National Animal Disease Control Programme: It was launched in 2019 to control and eradicate the Foot & Mouth Disease (FMD) and Brucellosis amongst the livestock

Animal Husbandry Infrastructure Development Fund (AHIDF): It aims to incentivize the investments to establish dairy and meat processing and value addition infrastructure and animal feed plants.

National Dairy Development Board: It was launched in 1965 as a premier institution to accelerate the pace of dairy development on cooperative lines in the country.

National Program for Dairy Development: It aims to strengthen infrastructure for the production of high-quality milk as well as for the procurement, processing, and marketing of milk and milk products.

Challenges to White Revolution 2.0:

The Indian cows and buffaloes **are generally low yielding and non-descript** because of the lack of healthy cattle-feed and fodder, tropical heat and diseases.

Despite **lack of water and gradually declining arable land**, dairy farming is on the rise.

Free trade agreements, or FTAs, for instance, will allow **EU government-subsidised products** to be imported from Europe with little entry barriers. This will pose a big challenge to cow-farmers.

Due to **unhygienic production, handling conditions and high temperatures**, the quality of milk is adversely affected.

Because of **inadequate marketing facilities**, most of the marketable surplus is sold in the form of ghee which is the least remunerative of all milk products.

Measures needed:

India may consider **reducing GST on ghee and milk fat**, from 12% to 5% to bring it at par with the GST rate for SMP. This has **been a long-standing demand of the dairy industry** and will ultimately benefit milk producers, increase rural incomes, spur demand and hasten economic recovery.

Increase in the market share depends on how dairy firms' capabilities and their resources are utilised given the opportunities and threats emanating from emerging markets economies.

Contract/corporate dairying and emerging global dairy trade are required to rope in dairy supply chains stakeholders in order to expand their outreach and "on-the-go" product positioning into the target segment.

Digital technology-enabled dairy firms need to identify their compatible partners and competitors for co-creation through product-process innovation via relationship/value-based marketing.

Freshness in milk, and convenience to store milk or milk products can be a technology innovation brought in by large dairy firms in association start-ups.

Education and Training at Panchayat level for small and medium size farmers

Subsidizing cattle production and encouraging cattle markets. Improved **Veterinary facility** specially in artificial insemination of cattle

Encouraging private sector firm to procure dairy produced at rural level. **Low interest loans** for small and medium scale farmers for cattle purchase

Insurance of cattle against diseases like Anthrax, Foot and Mouth, Peste des Ruminantes, etc.

Nurture dairy entrepreneurs through effective training of youth at the village level coupled with dedicated leadership and professional management of farmers' institutions.

Agricultural practices, sanitation, quality of drinking water & fodder, type and quality of pipelines – all of these need to be aligned to the goal of healthy milk