White Revolution 2.0

Why in news?

Recent Household Consumption Expenditure Survey (HCES) 2022-23 highlights the growing importance of White Revolution 2.0 as the top food item both in urban and rural areas is milk.

Operation flood- White Revolution 1.0
• **Origin-** The success of green revolution enabled India to launch operation flood. • **Launch year**- 1970 • **National Dairy Development Board-** It introduced Operation Flood to create a national grid that could streamline the production and distribution of milk across the country. • **Aim**- To increase milk productivity and ensure competitive market prices for milk. • **Objectives-** - Increase milk production ("a flood of milk") - Improve rural income. - Provide affordable milk to consumers. • **Dr.Verghese Kurian**- He is called as the Father of the White Revolution as he played a pivotal role in its success and also the founder of Amul, the largest milk producer in India. • **Phase I(1970-80)-** It was financed by the European Economic Community (EEC) through the World Food Program (WFP) to set up milk cooperatives. • **Phase II(1981-85)-** It led to the dairy development in the states of Karnataka, Rajasthan and Madhya Pradesh. • **Phase III (1985-96)-** The emphasis was now on veterinary care and better breeding practices. • **Outcome-** - It transformed the dairy-deficient nation into the global leader in milk production. - Women dairy farmers played a crucial role in India's dairy transformation. - As per World Bank report "Operation flood can be viewed as a 20 year experiment confirming the rural development vision".

Why there is a 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.

To know about Basic Animal Husbandry Statistics 2023 click here

How India can implement white revolution 2.0?

- **New breeding technologies**- The genetic improvements like sex sorted semen, embryo transfer and in vitro fertilisation can produce more female calves and high yielding cows from existing genetic resources.
- **Sex sorted semen**- There is a 90%-plus probability of only female calves being born, as against 50:50 with conventional semen.
- **Adoption of embryo transfer (ET) technology**- It exploits the high genetic merit (HGM) of existing cows, resulting in multiple calves from a single HGM cow.
- **In vitro fertilization (IVF) -** It is the method of mature ova outside the cow's body, leading to higher embryo production and more calves.
- **Bovine breeding centres**- This would breed a nucleus herd of high-genetic-merit bulls and cows through production of superior semen and in vitro-fertilized embryos for artificial insemination (AI) or transferring to farmers' animals.
- **Animal Nutrition-** There is a need to encourage farmers to cultivate high-yielding protein-rich green fodder grasses.
- **Lower feed cost**- This can be done by reducing the reliance on expensive compound like cattle feed and oil-meal concentrates.
- **Balanced diet**- Farmers are encouraged to implement Total Mixed Ration (TMR) plants to provide a balanced diet in a ready to eat farm, saving farmers the cost of purchasing and storing fodder separately.
- **Lower overall cost-** The government should emphasis on lowering the overall costs of producing milk at the farm-gate, rather than solely relying on increasing procurement prices.

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-Pashu Haat-** An e-market portal connecting breeders and farmers to provide quality-disease free bovine germplasm. • **Pashu Sanjivni**-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.

References

1. Indian Express- White Revolution 2.0
2. NDDB- About operation flood

