

X) Integration of rural farming with latest innovation in technology will result in great transformation of dairy industry in country. Substantiate.

India's transformation from ~~milk~~ milk deficit to milk surplus country has been tremendous. In 1970, "Operation Flood" was most ambitious program that made India one of largest milk producers.

Today India produces nearly 187 million tons (2018-19) (ie) 22% of world's milk production and per capita milk is 394 gms/day above world average of 302 gms/day.

2) Issues faced :-

- Though largest milk producer, India could not be largest exporter as most produce diverted to domestic need.

- Dairy sector important in India for 2 reasons - (i) Socio cultural affinity and (ii) employs nearly 70 million farmers

- Need to ~~also~~ enhance the return on investment.
- Indigenous breeds produce 3.0 kg milk per day while exotic crossbreed gives 8 kg.

⇒ way forward :-

- "Cross breeding" is the magic ~~word~~ word
- It involves 3 technologies - IVF, Artificial insemination and embryo transfer.
- Government of India launched "National Artificial insemination program" on 2019 -
- Every cow provided with 12 digit ID "Pasu Adhaar" to monitor artificial insemination.
- 9 crore Artificial insemination performed leading to 1.5 crore HY female calves
- This will result in 18 million tonnes additional milk & avg. productivity will be enhanced to 3000 kg/animal/year
- IVF also has become useful tool in crossbreeding which uses semen from different bulls, that enables greater genetic diversity from single cow

Thus keeping in mind our ethos "Jai kisan, Jai vyasan" marriage of rural farming with latest technology will usher unprecedented growth in dairy sector.