

Innovations

The project financed innovations which were competitively-selected for testing proof-of concept for new and promising technologies contributing to higher dairy productivity and competitiveness. Pilot activities included animal health, genomic selection, feed/fodder innovations, data management/ICT applications, renewable energy and milk fortification.

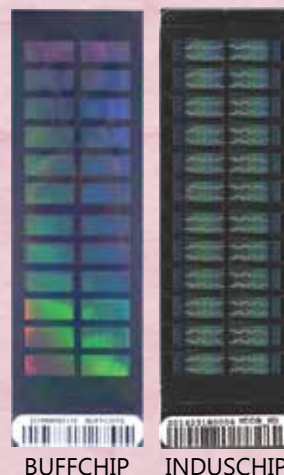
Animal health: The first-ever trial of an internationally-proven **Infectious Bovine Rhinotracheitis (IBR)** vaccine under Indian field conditions saw the vaccine administered to over 9,500 animals in 10 villages. The vaccine proved safe even in pregnant animals and no significant reduction in milk yield was recorded.



Genomic selection: NDP I pioneered the genomic selection which has the potential to increase rates of genetic improvement by over 20 per cent e.g., annual increases in production of over 47 to nearly 84 litres, depending on breed.

NDP I developed the **INDUSCHIP** for genotyping recorded animals, creating a genotyping facility which processed 9,768 cattle samples in 12 months.

The **BUFFCHIP** for buffalo, a medium-density, micro-array chip developed in collaboration with the US Department of Agriculture (USDA) has been validated for genotyping. The whole genome sequencing was conducted on 296 buffaloes of 10 major Indian breeds to study variations.



Data loggers: The installation of 69 Data Loggers in as many DCSs/MPCs nation-wide helped to monitor and control the performance of BMCs in real time. Provision of SMS alerts and web portal-based information through data loggers supported remote performance monitoring, preventative planning for possible breakdowns and resolution of equipment failures with minimal delay.

