



Productivity enhancement

Animal breeding activities

Under NDP I, genetic improvement of milch animals for improving productivity was achieved by production of semen from High Genetic Merit (HGM) bulls. Progeny Testing (PT) and Pedigree Selection (PS) programmes were implemented to supply the entire requirement of HGM bulls for frozen Semen Stations (SS) across the country. These stations were also upgraded and expanded to meet the increasing demand for frozen semen.

Pilot model for viable doorstep artificial insemination (AI) delivery services was set up to operate in a financially self-sustainable manner using Standard Operating Procedures (SOPs) including animal tagging and performance recording.

HGM breed improvement, semen production and pilot AI services: The project supported PT and PS programmes, which together made available 2,456 HGM bulls of major dairy breeds of cattle and buffalo to the 54 SS nationwide. These HGM bulls were produced from four PT subprojects across six breeds (2,185 bulls) and nine PS subprojects covering eight breeds (271 bulls). Prior to NDP I, the majority of the 54 SS had poor infrastructure and lacked biosecurity measures, with risk of spreading disease

through the semen produced. NDP I upgraded 28 SS through civil works and upgradation to produce high-quality, disease-free semen doses. In select states, dairy producer companies (DPCs) implemented pilot AI delivery services by recruiting and training 1,330 mobile AI technicians (MAITs) who followed standard operating procedures. The MAITs also played a key role in raising awareness about Infectious Bovine Rhinotracheitis (IBR) control and foot and mouth disease (FMD) vaccination. During project implementation, the semen strengthening programme met the target of production of 100 million semen doses by producing 119.2 million semen doses from the 28 SS in the terminal years. This resulted in an estimated 27 million AI from the frozen semen doses produced by the stations. These breeding activities led to increased milk productivity through better genetics and, using SOPs, has increased the AI conception rate, which in turn reduced the inter-calving period.

Increased milk productivity due to improved genetics: The ex-ante EFA stated that without the project (WOP), due to limited breed improvement programmes in India, improved genetics would have made a negligible