



**NATIONAL
DAIRY
DEVELOPMENT
BOARD**

**NDDB's
digital
CONNECT**

Information System for Genetic improvement of cattle & buffaloes through Artificial Insemination



NDDB's digital connect for improving dairy animal productivity

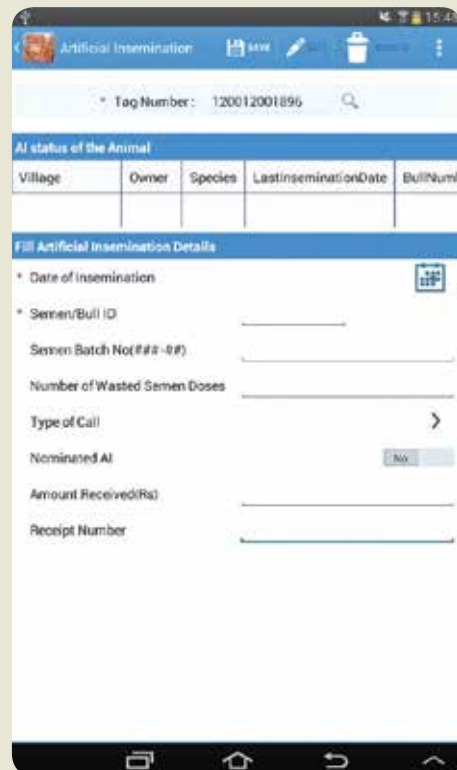
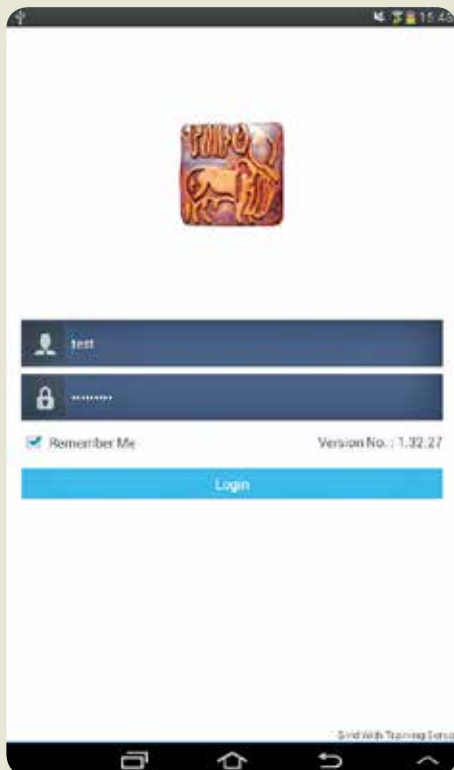
Introduction

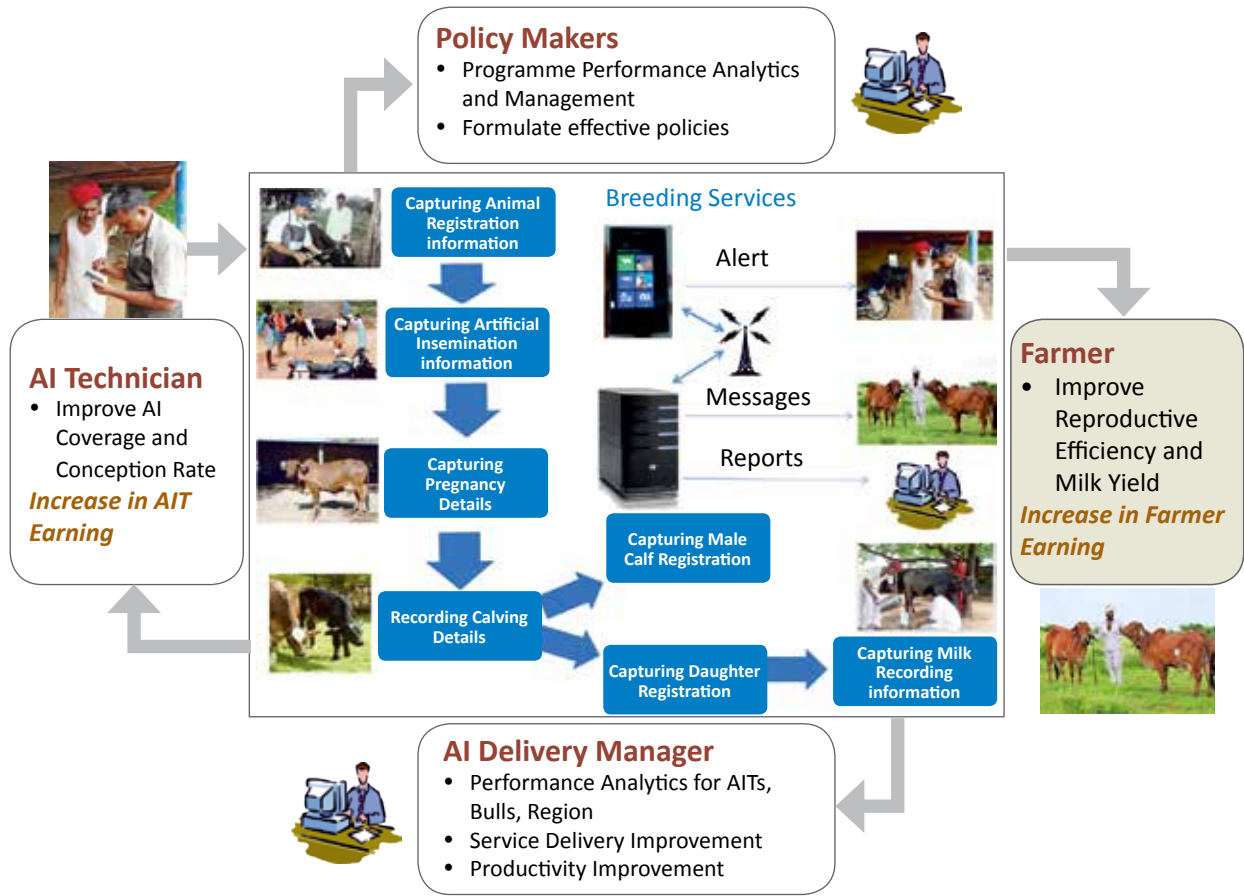
Artificial Insemination (AI) is a tool to achieve faster genetic progress in cattle and buffaloes. Genetic improvement occurs only when good bulls are utilized to inseminate cows or buffaloes. The Standard Operating Procedures (SOP) for AI includes - identification of every inseminated animal and all calves born using an ear tag with unique number; use of semen from only 'A' or 'B' grade semen stations and recording of all information. AI service following SOPs delivered at the doorstep of farmers is central to scientific animal breeding. Presently, information about AI is either not recorded or recorded manually without individual animal identification, which is of limited use.

The National Dairy Development Board (NDDB) has put in place an integrated information system for recording data (on individual animal basis), analysis and dissemination to various stake holders. Information related to AI delivery, performance recording, animal health and animal nutrition services are recorded by service providers in the system.

Realizing its effectiveness in monitoring the performance of dairy bovines in many projects, DAHD&F, GoI, has recommended its use for the implementation of National Programme on Bovine Breeding - a central sector scheme.

The system is now upgraded to enable AI Technician (AIT) to capture information right at farmer's doorstep using his smartphone. This digital initiative will help farmers improve conception rate, reduce inter-calving period and select best bulls and cows.





Key benefits

- Information gathered on individual animal basis right at the doorstep of farmers
- SMS alerts to farmers on
 - Which animal to be watched for heat symptoms
 - Exact time for checking pregnancy after AI
 - Expected date of calving
- Farmers identify repeat breeder animals which require treatment
- With pedigree records available, farmers can be advised on bulls providing best progenies.
- Avoids inbreeding
- AI technician can identify animals which need to be followed for pregnancy or calving and also advise the farmer to look for signs of heat or calving
- This will help reduce inter-calving period and improve reproductive efficiency of cows/buffaloes
- Managers of AI delivery organizations can identify good or bad performing bulls and AI Technicians and improve efficiency of their services by comparing such information
- Policy makers and scientists would be able to design various interventions related to genetic improvement & better reproduction management of cattle and buffaloes for dairy farmers

