Strengthening, Modernization and Expansion of Animal Breeding Farm, Kalsi under Rashtriya Krishi Vikas Yojana

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**Title of the Project:**
Strengthening, Modernization and Expansion of Animal Breeding Farm, Kalsi

**Description of the Project:**
The project envisages strengthening of Animal Breeding Farm, Kalsi by creating infrastructure for fodder storage, housing of Red Sindhi breed of Indigenous Cattle, irrigation and water facility at the farm, installation of biogas plant, gau mutra processing laboratory, laboroty equipments for conservation of Red Sindhi breed of Indigenous Cattle through use of embryo transfer technology and training center for imparting animal husbandry and fodder related training to the farmers of the State of Uttarakhand.

**Fund allocated and spent on the project:**
Amount Sanctioned and Released: ₹467.57 Lakh
Amount Utilized: ₹467.57 Lakh

**Rationale of the project:**
Animal Breeding Farm, Kalsi is located at Dehradun-Chakrata highway. The farm is around 52 km away from Dehradun & at the height of 1807 feet from the sea level. The farm is located at the meeting point of Reserve Forest Boundary Kalsi compartment no. 13-14. It comes under tribal area. Average annual rain fall of the area is 130-150 cm. & like northern India this area also have extreme chill during winter & extreme hot during summer months.

Government of Uttarakhand vide gazette notification no.02/XV/V.G.V.-P.P.-U.L.D.B./29(3.1)/2004 dated 02.04.05 has transferred this farm to ULDB in the year 2005-06 for the conservation & propagation of Red Sindhi breed of cattle. At present the farm is maintaining & breeding pure bred Red Sindhi & Red Sindhi crosses.

Animal Breeding Farm, Kalsi is one of the very few Government Farms having Red Sindhi breed of indigenous cattle. The farm is working for conservation, propagation and multiplication of Red Sindhi breed of indigenous cattle through use of embryo transfer technology. Center of excellence for fodder grasses developed in the farm is used for the distribution of root stock cutting to the farmers. The farm is providing training to the farmers, para-professionals and professionals on animal husbandry, dairy and fodder production etc.

The project envisages for strengthening, modernization and expansion of Animal Breeding Farm, Kalsi for implementing conservation of Red Sindhi breed of Indigenous cattle and for imparting training to the farmers for latest animal husbandry, dairy, fodder production techniques.
Objective of the project:
1. Conservation, propagation and multiplication of Red Sindhi breed of Indigenous Cattle by strengthening of Embryo Biotechnology Research & Training Center and by increasing housing capacity of the farm by the construction of Cow Sheds in the farm.
2. Round the year production of fodder by creating irrigation and water facility at the farm by construction of Tubewell, pump house and overhead water tank.
3. Demonstartion of the farming, dairy, renewable energy and cow urine processing activities to the farmers for awaring the farmers for adoption of these technologies for their economic upliftment.
4. Training of the farmers on latest animal husbandry, dairying and fodder production related technologies.

Project Period: Year 2008-09

Implementing Arrangement of the Project:
The creation of infrastructure for implementation of the project is accomplished by construction agency Sansadhan Vikas Evam Nirman Nigam, Dehardun. The Uttarakhand Livestock Development Board and Animal Breeding Farm, Kalsi have ample number of trained and experienced man powers. All the technical man powers are engaged for the successful implementation of the project.

Special Features ‘stand alone/ stand out’ features of the project implementation and its efficacy:
Previous experience (genesis):
Before this project under National Project for Cattle & Buffalo Breeding (NPCBB) the Uttarakhand Livestock development Board has strengthened Animal Breeding Farm, Kalsi as Bull Mother Farm for the production of Red Sindhi male calves for natural breeding program of the State of Uttarakhand and for artificial insemination program of the State and other States. The board has established Embryo Biotechnology Research and Training Center at Animal Breeding Farm, Kalsi for conservation, propagation & faster multiplication of Red Sindhi breed of Indigenous Cattle through use of Embryo Transfer Technology. Creation of additional facilities for rearing of cattle, fodder production, embryo biotechnology center and training is required for over all development of farm.

Activities Implemented:

1. Construction of Tubewell, pump house and overhead water tank:
   Tubewell, pump house and 150 k.lit. capacity overhead water tank is constructed in Animal Breeding Farm, Kalsi. It has ensured availability of clean drinking water for the cattle of the farm, cleaning of shed, water to the residential building and irrigation of farm land resulting in productivity enhancement of farm cattle.
2. **Construction of Cow Sheds:** Construction of two cow sheds each having capacity of 50 cows has enhanced capacity of farm by 100 cattle. This has facilitated conservation and propagation of Red Sindhi breed of indigenous cattle and increased productivity of animals.

3. **Biogas Plant and 6 KVA Generator:**

   The electricity generated by the biogas plant and generator is used in running of electric chaff cutter and milking machine of the farm. During electricity cut outs the optional arrangement of electrivity of the farm is ensured with the help of biogas plant and generator. The slurry obtained from the biogas plant is used as organic manure. The demonstration of biogas plant at farm is also increasing awareness of the farmers towards adoption of this technique.

4. **Straw Godown:** One 200 M.T. capacity straw godown is constructed at Animal Breeding Farm, Kalsi. The straw godown is used for the storage of wheat straw. Construction of straw godown has resulted in round the year availability of wheat straw for the cattle reared in the farm and seasonal procurement of wheat straw has also resulted in economic gain to the farm.
5. Training Center and Training Models for demonstration:

One training center has been constructed/established at Animal Breeding Farm, Kalsi. Establishment of training center has facilitated the farm for providing training to the livestock owners, milk producers, paravets, unemployed youth, departmental personal on animal husbandry and dairy management, practical artificial insemination training etc.

Animal Breeding Farm, Kalsi has imparted training to 5612 trainees. Model of cow and buffalo has installed at training center for demonstration of internal and external body parts of the animals in practical training programs.

6. Cow Urine Distillate Processing Laboratory:

Under Rashtriya Krishi Vikas Yojana one Cow Urine Processing Laboratory is established at Animal Breeding Farm, Kalsi. Cow Urine obtained from Red Sindhi breed of indigenous cattle is processed into the cow urine distillate in this lab. The Animal Breeding Farm, Kalsi has produced 167165 liter cow urine distillate.

Animal Breeding Farm, Kalsi has signed MoU with Divya Yog Pharmacy, Haridwar for sale of cow urine distillate. Selling of cow urine distillate has provided additional income of 41.79 lakh to the farm. The unit is also providing continuous employment opportunity to 2 youth of the local area.

7. Embryo Transfer Laboratory Equipment:

Embryo Transfer Laboratory is modernized by installation of laboratory equipments for bovine embryo transfer work. The embryo transfer laboratory is using embryo transfer technology for the conservation and propagation of Red Sindhi breed of indigenous cattle. Animal Breeding Farm, Kalsi is developed as bull mother farm for production of Red Sindhi bull calves for natural breeding and frozen semen production program of state and other state.

At present Animal Breeding Farm, Kalsi is maintaining 599 cattle. The farm has developed Red Sindhi cows having milk production of more than 4200 kg. per lactation. A total of 141 pure Red Sindhi calves has been produced in the farm by use of embryo transfer technology and 295 Red Sindhi embryos are preserved for future use. The embryo transfer laboratory has also provided 63 Red Sindhi embryos to other states.
8. **External Electrification:** External electrification of the farm campus by use of LED lights under Rashtriya Krishi Vikas Yojana has resulted in availability of light for emergency treatment of animals and use of LED lights has also resulted in reduction of electricity expenditure of the farm.

9. **Training Bus:** Procurement of Bus for Training Center is used for field visits of trainees. Provision of Bus facility has not only resulted in easy transportation of trainees from one center to other but also resulted in saving of time and money.

**Processes that helped for better implementation and realization of objectives:**

Uttarakhand Livestock Development Board has made this project especially for filling lacuna existing in the farm for obtaining better outcome from all activities implemented at farm level. The release of fund under Rashtriya Krishi Vikas Yojana has resulted in implementation of various activities envisages for the strengthening, modernization and expansion of Animal Breeding Farm.

**Output, outcomes and other achievements:**

After the implementation of the project the Animal Breeding Farm, Kalsi is strengthened with increased housing capacity of the cattle of the farm, round the year availability of green fodder, increased fodder storage capacity, irrigation, wateringy facility of the farm.

The training center developed under the project is facilitating organization of training programs for the farmers of the State.

The strengthening of Embryo Biotechnology Research & Training Center is facilitating implementation of embryo transfer technology program for Conservation, propagation and multiplication of Red Sindhi breed of indigenous cattle nad imparting training to the professionals of the State and other States.

**Financial returns of the project intervention to farmers:**

The demonstration of animal husbandry, dairying, fodder production, renewable energy generation, cow urine processing etc. is motivating formers for adoption of these activities for generation of additonal income.