

Chapter 11

Integrated Cattle-Breeding Project in Sikkim, India

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In 1975, Sikkim became the twenty-second state of India and initiated a number of development projects including animal husbandry and dairy development. However, the First Seven-Year Development Plan of Sikkim (1954-60) laid the foundation of the Livestock Development Plan. Prior to the First Plan, there was no organised effort to develop the poultry and livestock sector. Ninety per cent of farmers rear poultry and livestock; hence, there is enormous potential for developing this sector. Livestock is reared not only for milk and meat, but also as a primary source of draught power and manure.

Integrated Cattle-Breeding Project

Cattle-rearing is an important enterprise amongst the farmers of Sikkim irrespective of caste and creed; most households keep one or two cows. As a result of the importance of this animal, the governments of India and Sikkim, in collaboration with the Indo-Swiss Project, prepared an integrated cattle-breeding programme for Sikkim in 1995.

The breeding policy for this programme is to limit the level of exotic inheritance to 50% and increase production of high-fat milk. It employs natural service using selected crossbred bulls produced from a registered herd kept in intensive follow-up by the Animal Health and Veterinary Services Department.

In accessible areas, including intensive cattle-breeding areas, a proportion of the cattle population is covered by AI using frozen semen. Almost 20% of the breeding population of 80,000 cows/heifers are covered. About 200 breeding bulls have been distributed to bull keepers. Forty-one AI centres are in operation. A state bull-rearing farm at Karfector (south Sikkim) has started to produce 50 bulls per year.

The breeding scheme implemented in Sikkim is explained in Figure 3. Animals covered by AI and natural service are nondescript local animals, crossbred Jersey animals, and local Siri cows. The breeding plan followed in the intensive cattle-breeding areas and organised natural service areas is presented in Figure 4. The progress achieved under these programmes is as follows.

- Two intensive cattle-breeding areas (ICBA), namely Central Pandam and Dentam, have been established.
- Identification of elite cows, maintenance of herd books, milk recording, selection of bull mothers, and so on have commenced in ICBA areas.

- Milk production of elite bull mothers has increased from 2,000 l to 25,000 l per lactation.
- Bull calf production, selection, and transfer from ICBA areas to the bull-rearing farm has started.
- Selected calves are checked by the Programme Officer five times before they are six months old.
- Growth of male calves in the initial phase of the programme was 300 g per day; it has now reached 500-600 g per day, after intensive follow-up and rejection.

In addition, the planned breeding model of Sikkim is expected to conserve the indigenous breed, Siri, and achieve higher production through crossbreeding. The cross-bred population is being constantly monitored to achieve appreciable quantities of milk under local situations. Purebred Siri selection aimed at superior draught qualities and milk production is being explored.

Figure 3: Cattle breeding scheme for Sikkim

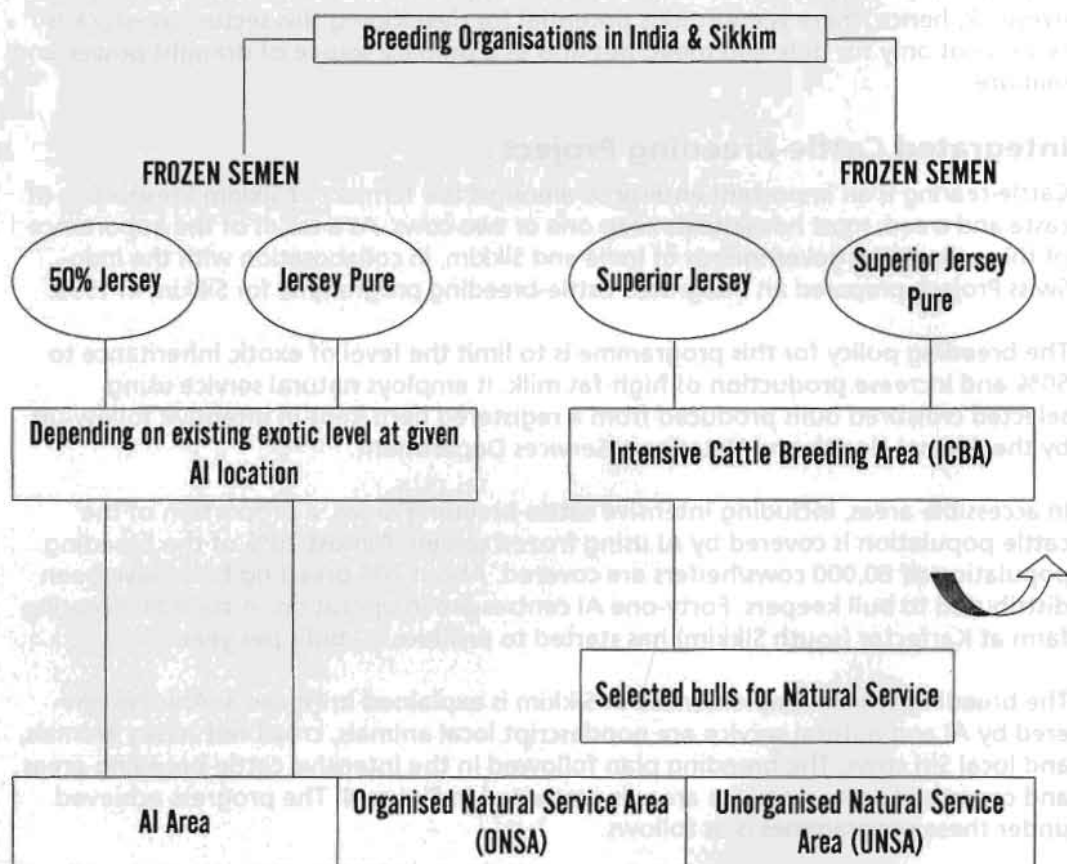


Figure 4: Breeding plan for Intensive Cattle Breeding Area (ICBA) & Organised Natural Service Area (ONSA)

