

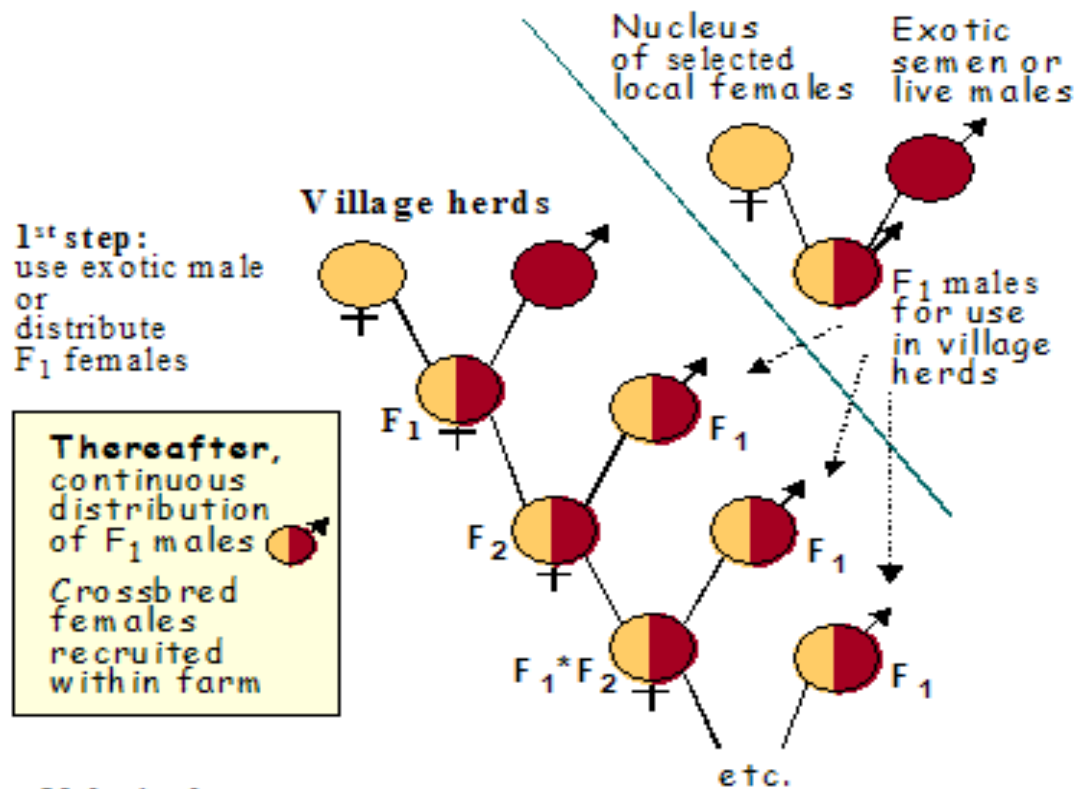
## **Improvement of non-descript cattle by Cross breeding:**

**Cross breeding** with exotic dairy breeds is the most rapid and effective approach to genetically improve the non-descript zebu cattle, particularly in milk shed areas around peri-urban and industrial towns. Exotic dairy breeds like Holstein- Friesian, Brown-Swiss and Jersey has been in use to bring rapid genetic improvement to enhance multifold productivity of non-descript cattle through crossbreeding. Holstein- Friesian has been recommended as the breed of choice in the irrigated plains and Jersey cattle as breed of choice in the hilly terrain and coastal areas for crossbreeding. The optimum level of exotic inheritance in crossbred should range between 50 and 75%.

However, in all these years the basic policy had hardly changed. In formulating the breeding policy the need of the farmer was never taken into consideration. In spite of the detailed breeding guidelines, the animals continue to breed as per the wishes of the farmer and the traditional bull keeper. Another reason for this is the very limited reach of the state machinery.

Although policy guidelines were very clear on crossbreeding, in reality this tool was and is being indiscriminately used which has led to the dilution of some good Indian breeds.

## A Model breeding plan for production of half-breds using NBS



**If desired:**

~62.5% females can be obtained by mating crossbred females with F<sub>1</sub> males and 75% exotic males in every other generation

Continuing supply of selected local females needed for production of crossbred sires

➡ **local breed conserved**

Source: Malmfors (2001).

