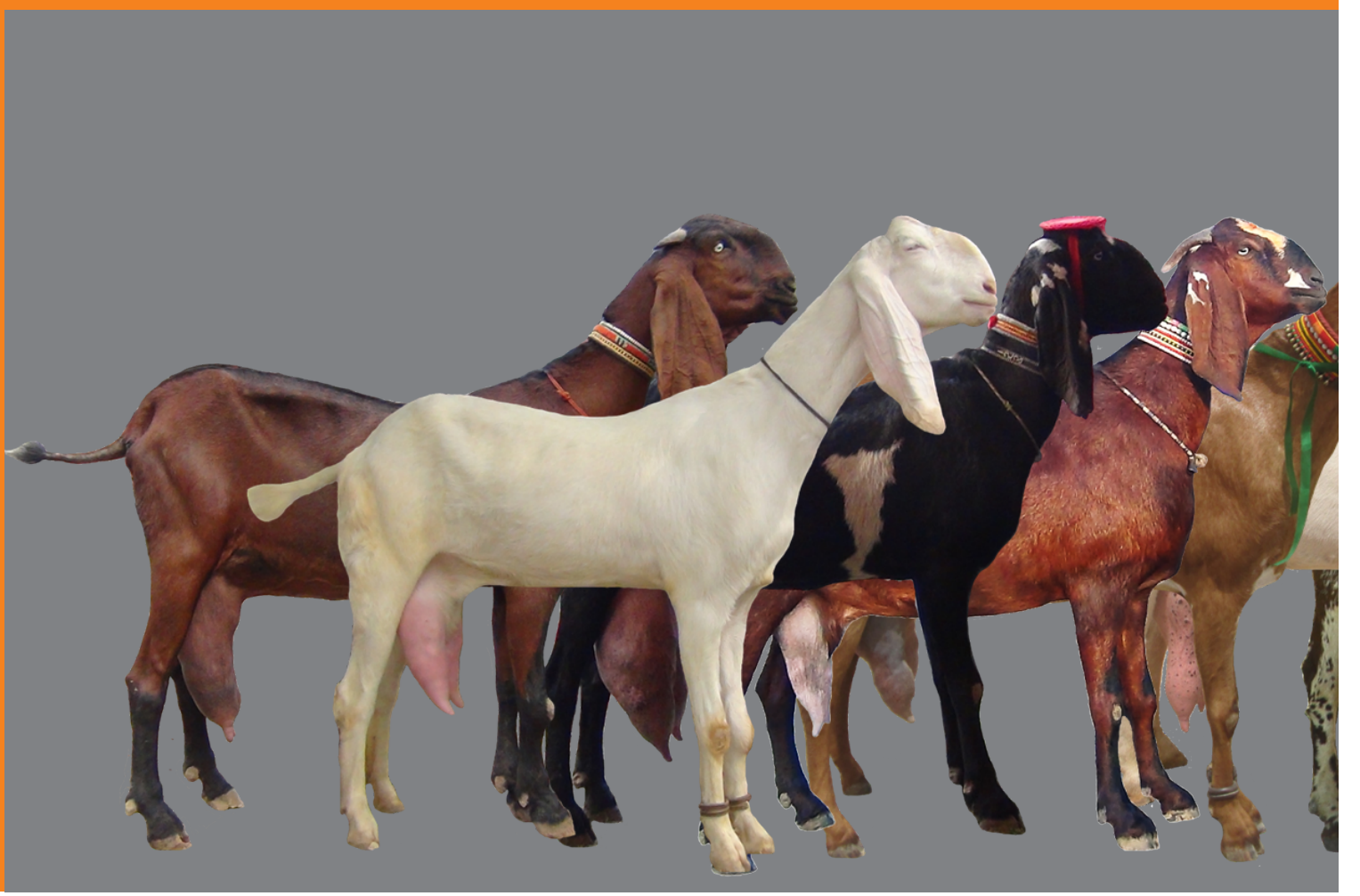
Documenting Indigenous Genetic Resources – The Beetal Goats



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Documenting of animal genetic resources is very important for promoting genetic diversity for enabling their sustainable use and conserving indigenous breeds. Pakistan is blessed with more than 100 breeds of indigenous livestock with rich genetic diversity. There are 36 breeds of goat with a population of 70 million distributed across all four provinces and other territories under Pakistan. Preference of goat as a sacrificial animal and likeness for its meat has made goat as the fastest growing species in the country.

From climate change scenario, goats are very important indigenous livestock as they can thrive under scavenging conditions and also be raised under high input system. Bucks raised for Eid-ul-Adha can weigh as high as 200 kg. Highest milk yield in Beetal has been reported 10litres (in 36 hrs). Survival in mountainous terrain and desert conditions makes goats important for in globally warming environment. Although a majority of goat population can still be called "nondescript", these populations are known to be multiple crosses of existing breeds. Some animals may belong to (relatively) homogenous groups distinguishable from neighboring populations. Unless documented nondescript population are prone to crossbreeding and ultimately their deterioration.

Keeping in view the importance of goats it is imperative to document available goat breeds in the country with their attributes (phenotypic characterization). This can help improve ownership of breeders as most of the advanced international breeds have been developed through breeders associations and societies. The information on indigenous goat breeds in Pakistan is very scanty. Many of the breeds and strains are undocumented. An attempt was therefore made to document Beetal goat breed in the country. The major source of information was goat shows conducted at University of Agriculture Faisalabad and throughout Punjab. Intense debates were held with the breeders to develop consensus

on the score card for Beetals. A formal study on breeding objective for Beetal goats was also completed and a booklet has also been published.

Six strains of Beetal breed have been documented. All the strains have pendulous ears. Body colors are different with different preferences of breeders for different body attributes. Breed is characterized as meat and milk breed (primary and secondary breeding objectives). This is different from that traditional description of goats where it was black and white with large pendulous ears (now described as Faisalabadi Beetal or Desi goat). The Nagri color (brown replacing black) is very common in Pakpattan district and home-tract extends to Faisalabad. The Makhi Cheeni stain is more common in Bahawalpur and Bahawalnagar districts. Splashing of brown (dark to very light) and black is characteristics feature of the breed. Variation in shades of brown has also been documented. The Gujrati strain has brown background color with light brown spotting. Solid color (light to dark brown) has also been included in the list of acceptable colors. Nuqri is found in Rajanpur and DG Khan districts and has white color only. The sixth strain in black colored RY Khan is found in Rahim Yar Khan district.

Besides color differences among various strains, preferences of breeders have also been documented. Body length and height was most preferred size traits. Roman nose are less important in Faisalabadi, Nagri and Gujrati breeders but important for RY Khan and Nuqri breeders. Skin shineand fineness was considered important by RY Khan breeders. Udder shape was important in all strains but teat size and shape was rather less important at breeder level.

Phenotypic characterization and establishing beauty standards of Beetal was technically and logistically challenging. It is hoped that this effort will prove to be a corner-stone for future efforts for documenting indigenous breeds of other species as well. Breeders will select structurally correct animals that are more productive and can have longer herd lives. Farmers need to be educated and facilitated to crystalize their preferences for any strain of Beetal so that bucks selected for artificial insemination have best of the commercial attribute without compromising non-commercial qualities. A score card has also been proposed.

Beetal does of different strains at different milking competitions