

Social determinants of small ruminant genotypes kept by the Gabbra and Rendille Pastoralists of Northern Kenya

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ABSTRACT

About 70% of Kenya's sheep and goats reared by the pastoralists are indigenous genotypes. These breeds have evolved to adapt to harsh environmental conditions and at the same time fulfil production and socio-cultural functions in their production systems. Pastoralists can be seen as guardians of bio-diversity since their breeding and management strategies have led to a large variety of indigenous livestock breeds under those environmental conditions where exotic breeds hardly survive. The study was undertaken in Marsabit district of northern Kenya among the Gabbra and Rendille pastoralists. As the formation of breeds requires the maintenance of a close gene pool, the study aimed at establishing social factors concerned with the development and maintenance of small ruminant genotypes, *i.e.*, to find out whether at the community level, social determinants were in place that led to a restriction of exchange of breeding animals between different populations. In each community, four focus group discussions, each comprising of 10-12 people were conducted to gather information on social breeding mechanisms. The data collected were first clustered by community and all the notes of the responses to all the questions scrutinized. Information was later organized into thematic areas and reported objectively on what had been presented, and logical conclusions drawn. The results showed there were rules, beliefs and taboos governing breeding systems of the two communities. They included rules that governed the passing of breeding stock between members of the same community, *i.e.*, for sharing, selling and buying, and passing of livestock during life cycle events like birth. Rules, norms and taboos that restricted the passing of quality breeding stock outside the community also existed. The study concluded that these social determinants contributed to closed gene pools of respective populations and, is thus an indication of the existence of different breeds.

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Pastoralists have developed and maintained a large variety of indigenous livestock genotypes. One of the main attributes of indigenous genotypes is their adaptation to the production environment. Ability to survive natural calamities, prestige value and capital asset functions are important aspects of comprehensively defined breeding goals (Wollny, 2003). Local genotypes are a product of social networks that are operating according to certain rules. Breed is often accepted as a cultural rather than a technical term (Scherf, 2000). Unfortunately, the local livestock genotypes are under the threat of extinction and/or genetic dilution due to national breeding policies, which tend to disregard local genotypes in favour of exotic ones.

Expansion of intensive agriculture in rangelands, establishment of national game reserves and national parks in the same, and fast changing lifestyles are also weakening cultural values among the pastoralists (Njoro and Wanyama, 2000; Ndungu *et al.*, 2003; Lokhit Pashu-Palak and Köhler-Rollefson, 2005). The current study was prompted by the gap of knowledge on whether the populations of small ruminants of the pastoral communities were genotypes or not. Besides, the social breeding determinants which have been maintaining these genotypes over generations were unknown. To establish if the respective small ruminant populations were reproductively isolated (*i.e.*, closed gene pools), this study determined the social determinants that contributed to closed gene pools and the impact on breeding strategies of the Gabbra and Rendille communities of northern Kenya.

MATERIALS AND METHODS

This study used focus group discussion (FGDs)

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