

Role of women in sustainable management of Kangayam grassland

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Introduction

Kangayam grassland is located in the rain shadow area of the Western Ghats in South India between the coordinates 77° 17"E and 77° 55"E longitude and 10° 44" N and 11° 03" N latitude. It receives an annual rainfall of 666 mm. The grassland used to a barren land with overgrown until 150 years ago when the ownership of these lands were given to the local people by the British colonizers under land settlement called *ayen pillu* (remission in tax) and *paravu pillu* (grazing rent) (Nicholson, 1887). The occupancy rights granted to the cultivators encouraged them to invest in the unproductive land over generations, building wells for providing drinking water to animals, identifying and using *Balsmodendron berryi* as live fence (Voelcker, 1893) around the grazing areas, taking a collective decision to discourage goats in the region which damage the live fence etc. Historically, this area does not have communal grazing land as Littlewood (1936) reported that the Dharapuram taluk which lies in the heart of the grassland has no cultivable waste, no communal grazing land and no forest. Yet it was one of the best managed cattle rearing area with an excellent system of mixed farming. The whole of the Kangayam grassland spread over 4000 sq km area now has grazing paddocks of varying size fenced with live fence of *Balsmodendron berryi* in which a few cattle and 25-30 Mecheri sheep are grazed under rotational grazing system. Soil is broken up once in 4-5 years to take a crop whose success depend upon the monsoon, else they make way for use as fodder for the animals. Reseeding of the grass (*Cenchrus spp*) is taken up once in 2-3 years to maintain the productivity of the grassland and in several pockets grass is sown with *Phasolus trilobus* to get nutritious grass-legume mixture to feed the animals. Development of the Kangayam grassland and its sustainable management over 150 years highlights the importance of individual ownership rights over 'the tragedy of commons'. Women play an important role in the management of the grassland and the livestock production activities. The present study highlights the role of women in various activities that are being carried out in this predominantly sedentary pastoral economy.



Materials and Methods

The present study was undertaken to assess the women's role in management of grassland and livestock rearing. Data was collected from 50 farm household in the Kangayam grassland in the villages Veeracholapuram and Popini-Menakshivaslasu in Kangayam taluk of Tirupur district in Tamil Nadu to assess the role of women in different activities related to management of grassland and livestock activities.



Results and Discussion

Grassland is a dynamic ecosystem which have its own equilibrium dictated by nature or it may be managed by people for derive economic benefit. Managed grassland requires a higher level of understanding of the inherent limitations of the production system and employing management techniques to keep them productive a higher level on a sustainable basis. The people of Kangayam Kangayam region have demonstrated over a period of 150 years that a resource poor fragile ecosystem which, when managed judiciously can turn into a sustainable production system. The people have employed technologies, encouraged affirmative social action and managed themselves also to create a sustainable sedentary pastoral system. They have identified and used the drought resistant thorny bush *B. berryi* to develop grazing paddocks, dug wells in the paddocks blasting through hard rocks for providing drinking water to the animals. Having ownership of the land, people invested their savings in digging the wells which continued for a few generations by deepening them. Between 1881 and 2002 AD, 35709 new wells were dug up mostly for providing drinking water to the grazing animals. People collectively discouraged keeping goats because they damaged the live fence, instead the hairless Mecheri sheep was encouraged as the animal of choice. To prevent the fragmentation of grazing land, people have also managed themselves well by making a conscious choice of having small family. The human population growth rate in the Kangayam grassland between 1931 and 2001 was only 0.43 percent per annum. The grassland has a healthy attitude towards the girl child as it has healthy sex ratio, 1010 in the year 2001 (1051 in year 1931). Women shoulder important responsibility in this livestock based economy by taking up important role in the management of the grassland. The study revealed that in the grassland management, women's major role was in weeding of paddocks (87.6%), harvesting of grasses (89.6%) and collection of fallen pods of *Acacia* (100%). In livestock management activities, women's role was high in cleaning of livestock shed (68.4%), disposal of placenta (63.2%), identification of sick animals and deworming (60%), feeding and watering of animals (59.6%) and care during pregnancy (56.4%). Recognizing women's role in management of the grassland, improving their skill through capacity building programmes and exposure visits, and promoting backyard poultry to supplement the income of farm women can further improve their livelihood opportunity.

Conclusion

The Kangayam grassland offers an important insight into sustainable management of tropical grassland. The technological innovations and the social action employed by the people of the Kangayam grassland can be replicated elsewhere under similar climatic conditions. The gender dimensions need advocacy highlighting the positives with respect to healthy sex ratio and a stable human population together with improving the livelihood opportunities of women in the grassland.

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