

Role of Indian Culture in Biodiversity Conservation: A Study on *Dhok Ka Oran* in Barmer District, Rajasthan

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Abstract

Indian culture is the one of the oldest cultures in the world. Our older generations have vast knowledge about every field of life. They connected the conservation of nature with our culture and religion. Thus, people were forced to follow the rules due to the fear of God. Block level field survey in Barmer district, Rajasthan, was carried out. Information was collected through old and interest villagers. Oran land/ sacred grove was found in many villages. 2927.86 km² area of the total geographical area of Barmer district having *oran*/sacred forest area. *Viratara Mata/ Dhok ka oran* is the largest one, having a vast variety of plant species and arthropods as well as reptilian fauna. During recent times, due to illegal practices in the *oran* land, the destruction of biodiversity takes place. There should be modern education to know our traditional knowledge in the scientific way.

Keywords: Indian culture, Oran/Sacred Forest, Faunal and Floral Diversity, Biodiversity Conservation

Introduction

Indian culture is the one of the oldest cultures in the world. Our older generations have vast knowledge about every field of life. They connected the conservation of nature with our culture and religion. Thus, people were forced to follow rules due to the fear of God. These people attributed a spiritual respect and a practical understanding for the natural world (Martinez 1996; Berkes 1999). They culturally expressed conservation ethics and animistic religious beliefs conceptualizing other species as social beings. So, one can see relatively high richness of biodiversity within the sacred forests (Bernbaum 2006).

In these traditional societies, sustainable natural resource management was always carried out

by the beliefs of the communities and local cultures. These were strengthened by their intimate connections to the natural environment that sustains them (Rist *et al* 2003; Sobrevila, 2008). Modern science considers objective and sacred knowledge as separate things, while traditional cultures do not make such distinctions (Negi 2003, 2005). However, traditional knowledge-based systems (TKBS) qualify as being of conservational values (Smith and Wishnie 2000). The inherent conservation role of salient cultural practices in various landscapes, including in sacred forests, and of the TKBS development and practice by mountain communities in the State of Uttarakhand, Central Himalaya, was studied by Negi, 2010.

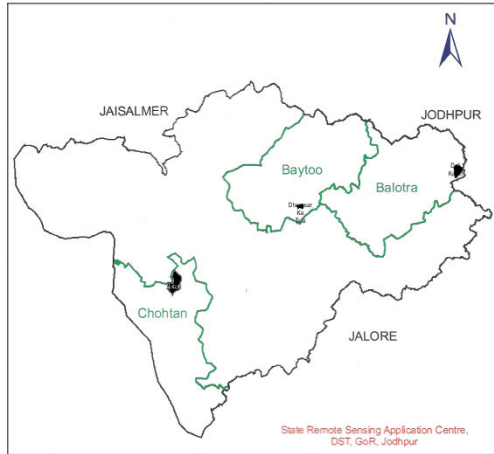
Objectives

Barmer district is situated in the western part of Rajasthan and forms a part of the hot Thar Desert, which has a special type of ecosystem. According to Bhandari (1990), the vegetation in the arid region is sparse; plants with xerophytic adaptations and drought resistance are able to grow here. In such a fragile ecosystem, our ancient people have a concept of keeping some piece of land in each village for cattle fodder in the form of “Gochar,” and for religious purpose as “Oran”. The land areas play an important role in improving our cattle health and performing a good habitat for wildlife. During famine period these areas were main income sources for poor people.

- To know the Indian culture.
- Indian culture and nature conservation.
- Concept of sacred forest.
- To know the recent status of sacred forests.

Study Area

The study site *Dhok Ka Oran* (or *Vankal Mata ka Oran* or *Viratara Oran*) is situated 60 km far from district headquarter in West direction. It is located in between 25°47'N to 71°02'E, and has an area of 29 km²; no agricultural activities are carried out in the Oran land. Name of the *oran*/sacred forest is based on the name of Goddess *Vankal Mata*, which is situated in *Dhok* village (Figure-1), where the priest of *Mataji* resides. Many temples of the Goddess are situated in this area, and cutting of green trees is prohibited by the *Oran* committee.



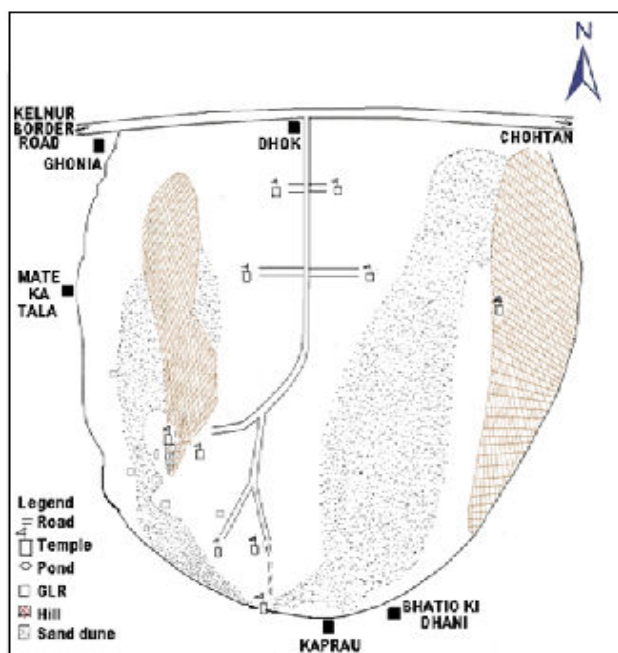


Figure-1: District map showing *Dhok ka oran*, intensive study site. *Dhok ka oran* and nearby villages. [NOT TO BE SCALE]
(Drawn with the help of Manager, Sri Viratara Mata Trust, Viratara)

Methodology

Block level field survey in Barmer district, Rajasthan, was carried out. Along with direct observations, information was collected from old and interested villagers through open ended questionnaire.

Observations and Result

The geographical area of *Dhok ka oran*/sacred forest contains both the hilly region on one side and straight sand dunes of 100-200 ft height in the Oran land (Plate-1); thus, vegetation and fauna of both the regions are found here. The Oran land is richly supported with arthropods, reptiles, birds and mammal fauna, namely *Meriones hurrianae*, *Tatera indica*, *Funambulus pennati*, *Hemiechinus auritus collaris*, *Herpestes edwardsi*, *Vulpes vulpes pusilla*, *Felis s. ornata* and *Gazella bennettii*.

Main vegetation at this site is comprised of *Acacia Senegal*, *Moringa concanensis*, *Lycium barbarum*, *Colligonum polygonoides*, *Leptodenia pyrotechnica*, *Acacia nilotica*, *Salvadora oleoides*, *Maytenus emerginata*, *Zizyphus nummularia*, *Euphorbia caducifolia* and *Ephedra foliata*.

Twice in a year, a fair is held, in which the priest of the temple sings, “A landlord cut green *ber* tree from the *oran* and made a cot for himself. When he slept on it, legs of the cot turned into snakes and the knitting rope converted into scorpions.” Thus he awakes the people for protecting the green trees in the *oran* land by experiencing the fear of the Goddess.



Plate-1. A view of Dhok ka Oran.

Recent Status of Biodiversity in the Oran Land

30 to 40 years ago, there were numerous wolves and porcupines, but now they are either destroyed or have migrated to other places, though there is reptilian and arthropod fauna aplenty. Some medicinal plants are present in the *oran* land (Jain B, 2005). In recent times, increasing greed of physical wealth in people, and reduction in sensitization with others, causes adverse changes in the *oran* land. The illegal mining activities in the hilly region (Plate-2) of the *oran* land can destroy and disturb biodiversity. Illegal poaching is another reason for decrease in wildlife in this *oran* land.



Plate-2. Illegal mining activities in the *oran* land.

Conclusion

Our ancient people had a vast scientific knowledge and foresight. So, they set some goals for nature conservation, and added them with our cultural sense and a source of livelihood (Aman Singh 2006). In *Dhok ka oran*, some rare species of vegetation is present, having medicinal significance (Jain B, 2005). Here, good fauna was also present; albino *Gazella bennetti* was noticed here by Kumar *et al*, 2016. But later, the taboo system was weakened by modern theoretical education and by money makers, who very often have no sense for the local traditions. There is also lack of modern legislation to reinforce traditional rules (Abayie Boateng 1998; Sinha RK, 2009). There is an urgent need to set specific guidelines to protect the sacred forests and promote the traditional knowledge for biodiversity conservation in the scientific way (McWilliam 2001; Swamy *et al* 2003).

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