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RESEARCH

STUDY ON SACRED GROVES IN SARGUJA

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Abstract: Sacred groves are tracts of virgin forest, harbouring rich biodiversity and traditionally protected by local communities. The inextricable link between culture, religious belief, and biodiversity conservation is evident in sacred groves. Many such groves are found in Chhattisgarh and are locally known as Sarna, Matagudi, Devgudi, and Gaondevi. The present study was carried out during the year 2020-21 at different locations in Ambikapur, Sarguja, where six distinct sacred sites were studied. A total of 16 different major species were recorded at the study sites. Among them, one endangered species, *Tanacetum sanguineum*, was recorded, which is listed as an endangered species in Chhattisgarh. The sacrificial system was also noted at two sites, and one sacred grove was found to be associated with temples. Sacred groves, with their rich ecosystems, provide significant biodiversity conservation benefits, supporting rare species and maintaining ecological balance. Moreover, these sites are an important aspect of local cultural heritage and tourism, attracting visitors who seek to experience both the natural beauty and spiritual significance of these areas. However, sacred groves are gradually being altered due to the ever-expanding human population, pollution and biomass extraction. Effective conservation is the need of the hour to maintain their functional values. The study suggests that local community participation not only boosts biodiversity conservation but also helps in preserving central role in their preservation. However, when sacred sites are relatively large, community participation alone is not enough for effective management. Support from external agencies, such as the Forest Department and/or environmental organizations are crucial for sustainable management of these valuable ecosystems.

Keywords: Sacred Groves, Ecosystem, Tribes, Biodiversity, Sarna, Environment

INTRODUCTION

Sacred Groves represent cultural and religious tradition of conserving specific lands. Sacred Groves have existed in India from time immemorial as patches of densely wooded areas, venerated on religious grounds (Konar, A. K. (2010)).They represent the ancient Indian culture of in-situ conservation of biodiversity. Sacred Groves in India were protected since ages by local peoples and tribal communities as a tradition of nature of each site. Traditional sacred groves worship dedicated to deities or ancestral spirits. Estimates suggest that there might be between 1,00000 to 1,50000 Sacred Groves around the country (Malhotra *et al*., (2007)). About 13,720 Sacred Groves have been reported from India. They are named differently in different parts of India such as Devrai, Rai, Rahati and Devrahati in Maharashtra, Sarana in Central India, Kalaw Lyngdhoh in Meghalaya, Nandavana, Kovilkadu in Tamilnadu, Devbhumi in Uttarakhand, Kavu in Andhra Pradesh, Kavu, Nagavana in Kerala, Sarna, Deorai in Madhya Pradesh, Oran, Vani, Kenkri in Rajasthan, Jaherthan, Garamthan in West Bengal, Deovan in Himachal pradesh, Ummanglai in Manipur, Than in Assam and Devarkadu, Kan, Sidharavanam in Karnataka. The sacredness, religious beliefs and taboos play a significant role in promoting sustainable utilization and conservation of flora and fauna of the region. Sacred Groves are repositories of valuable natural resources. They harbour many endemic, rare and endangered bio-resources having medicinal, agricultural and industrial importance **(**Boraiah, K. T., Vasudeva, R., Bhagwat, S. A., and Kushalappa, C. G. (2003)). They greatly help in soil and water conservation. These groves have their own micro-climate which increases nutrient recycling, recharge of aquifers and act as a perennial source of freshwater streams. They act as sanctuaries of natural indigenous resources like wild vegetables, fruits and fodder plants. Sacred Groves with rich diversity of tree vegetation acts as islands of biodiversity providing home for birds and plants especially climbers and epiphytic orchids. These Sacred Grove forests with massive population of centuries old trees act as a major sink of CO_2 and have the great potential to face and reduce the adverse effects of global warming and climate

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change. These sacred areas also serve as cultural ritual sites for the traditional local peoples (Saikia, (2006)). In rural landscapes, the Sacred Grove performs important several ecological functions in maintaining ecosystem health of surrounding units. The local communities inhabiting around the Sacred Groves receive benefits by collecting NTFPs. Introduction 2 Rapid urbanization in the recent past has transformed and weakened both cultural integrity and cause serious impacts on the status of sacred groves biodiversity, ecology and environmental sustainability. Many groves are suffering from 'Sanskritization', the transformation of primitive nature worship into formal Hindu practice and is a very serious threat to Sacred Groves in India. Changes in social belief, modernization, erosion of cultural practices, unsustainable development projects like dams, mining and road construction are the major reasons responsible for deterioration of these cultural and natural heritage.

Preservation and conservation of Sacred Groves is a most viable cost-effective option for minimizing the urbanization impacts. There is urgent need to uphold the traditions and beliefs to protect these unique gardens of gods by awareness programmes.

MATERIALS AND METHODS

The study on "Sacred Groves of Sarguja" was carried out in Ambikapur, Sarguja, during the year 2020-21. The study site encompasses six different areas of Sarguja (Table 1):

- **Site-1**: Labzi (Sarguja), Latitude 23.085267, Longitude 83.118772
- **Site-2**: Saanbad (Sarguja), Latitude 23.091962, Longitude 83.165977
- **Site-3**: Sakalo (Sarguja), Latitude 23.189768, Longitude 83.19892
- **Site-4**: Sarganwa (Sarguja), Latitude 23.163615, Longitude 83.2029
- **Site-5**: Bdhiyachuwa Bhagvanpur (Sarguja), Latitude 23.106253, Longitude 83.225835
- **Site-6**: Kalyanpur (Sarguja), Latitude 23.193215, Longitude 83.200387

All six sites are located within a range of 10-15 km of Sarguja.

Table 1. General difference between Sacred groves sites of Sarguja

S.No.	Area (Sarguja)	Host groves	Deity	Years old	Area covered under sacred groves (acre)
1	Labji	Pipal (*Ficus religiosa)*	Mahadev baba	100-120	1
2	Saanbad	Rock and Pipal (*Ficus religiosa)*	Van devi	1000	110
3	Sakalo	Pipal (*Ficus religiosa), Sal (Shorea robusta)*	Pandra pat devta	60-90	0.091
4	Sargawan	Bamboo *(Bambusoideae)*	Basandevta	70	0.068
5	Bdhiyachuwa Bhagvanpur	Rock and Bargad (*Ficus benghalensis*)	Garden pat pathhardevta	100-130	2.0
6	Kalyanpur	Bargad (*Ficus benghalensis)*	Rani devi	100-120	0.073

The study is based on both primary and secondary data. Primary data were collected by conducting surveys among local people, Baigas, and caretakers of sacred groves, using structured questionnaires and interview schedules.

The Forest Department was also consulted for relevant information. Secondary data were obtained from sources such as government publications and government departments, among others.

Table 2. Total species diversity of Sacred grove of Sarguja

S.No	Common name	Botanical name	Family
1	Pipal	*Ficus religiosa*	Moraceae
2	Banyan tree	*Ficus benghalesis*	Moraceae
3	Sal	*Shorea robusta*	Dipterocarpaceae
4	Neem	*Azadirachta indica*	Meliaceae
5	Aonla	*Emblica officinalis*	Euphorbiaceae
6	Saja	*Terminalia tomentosa*	Combretaceae
7	Ber	*Ziziphus mauritiana*	Rhamnaceae
8	Bel	*Aegle marmelos*	Rutaceae
9	Lemon	*Citrus lemon*	Rutaceae
10	Bamboo	*Bambusoideae*	Poaceae

11	Teak	*Tectona grandis*	Lamiaceae
12	Arjun	*Terminalia arjuna*	Combretaceae
13	Mango	*Mangifera indica*	Anacardiaceae
14	Banana	*Musa paradisiaca*	Musaceae
15	Shisham	*Dalbergia sissoo*	Fabaceae
16*	Parsa	*Tanacetum sanguineum*	Asteraceae

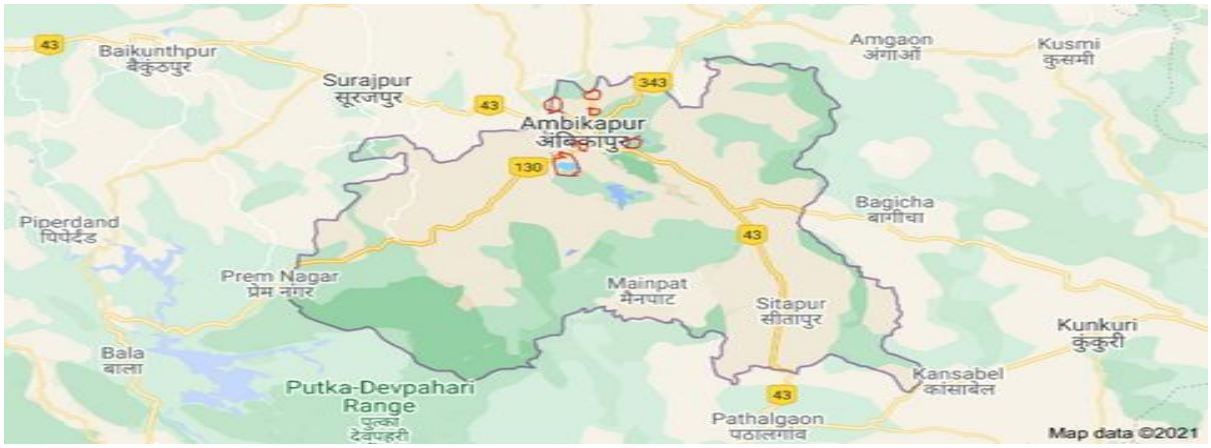

Figure 1: Location of study area

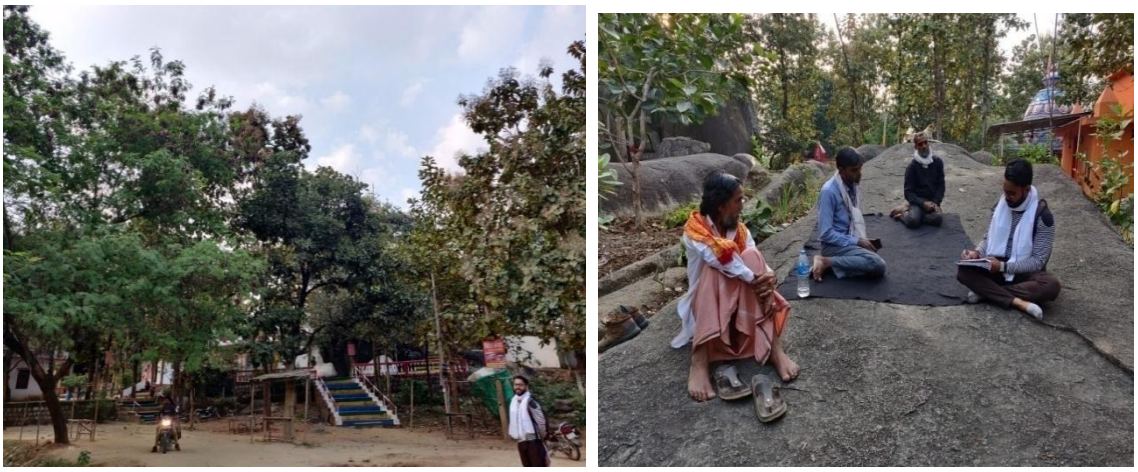

Figure 2: Interaction with the Local People

RESULTS AND DISCUSSION

Religious belief of sacred groves

Sacred groves are forests or natural areas that are considered sacred and protected due to religious or spiritual beliefs. The religious belief on Sacred groves in Sarguja is very positive the people here have a great faith in their deity the local people and tribes take care of groves out of faith and responsibility toward the groves many devotees come from outside pray and worship to deity **(**Koppers, W. (1940)).Resulting a great amount of interaction and understanding between nature and peoples such belief ties the people together as one.

Table 3. Species diversity between sites

S. No.	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
	Species					
1	Neem	Banana	Pipal	Bamboo	Neem	Bargad
3	Arjuna	Mango	-	Saja	Bargad	Sal
4	Sal	Lemon	-	Peepal	Mango	Arjuna
5	Bargad	Neem	-		Ber	
6			-		Sal	

7			-		Saja	
8			-		Aonla	
9			-		Arjuna	
10			-		Shisam	
11			-		Parsa	
Total no. of Spp.	**5**	**5**	**2**	**4**	**11**	**4**

Biodiversity

Sacred groves are vital ecological and cultural landscapes that have played an indispensable role in preserving biodiversity across the world. These areas, often protected due to religious or spiritual beliefs, have maintained a delicate balance between human activities and nature. The practice of conserving sacred groves has led to the preservation of many rare, endemic, and endangered species, making them essential hotspots for biodiversity. I have found many different species (Table 2.) on the area of sacred groves it has many major plantation species of Sarguja on a smaller land compare to normal forest areas all the species were well grown and maintain and had no harm from people thus we can say Sacred groves have rich species biodiversity. (King, E. I. O., Viji, C., and Narasimhan, D. (1997)). In the context of biodiversity conservation, sacred groves represent an effective, community-driven model that not only safeguards biological diversity but also fosters sustainable land management practices. The holistic approach to nature conservation, which integrates spiritual, cultural, and ecological values, has proven to be resilient in the face of modern environmental challenges, including habitat loss and climate change

Table 4. Different Ecosystem between sites

SN	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
1	Forest ecosystem	Forest ecosystem	Grassland ecosystem	Grassland ecosystem	Mountain ecosystem	Grassland ecosystem
2					Forest ecosystem	
3					Lake ecosystem	

Ecosystem

The ecosystem of sacred groves represents a unique and rich biodiversity hotspot, often harboring rare and endangered species. These groves are preserved through religious and cultural practices, leading to minimal human disturbance and fostering natural regeneration. Vegetational biodiversity is an important parameter to judging the health of an ecosystem because it regulates and affects the various ecological processes. (Arunachalam, A., Arunachalam, K. M., Pandey, H. N., and Tripathi, R. S. (1998)). Sacred groves have potential to form many types of ecosystems the ecosystem was different accordance to availability of area and location of sacred groves (Table 4.). The diverse flora and fauna within these ecosystems play crucial roles in local environmental sustainability. Thus, sacred groves serve as vital ecological reservoirs, promoting both cultural preservation and biodiversity conservation.

Endangered species

Sacred groves play a critical role in the conservation of endangered species by providing safe habitats free from commercial exploitation and deforestation. These areas, often shielded by religious or cultural significance, preserve unique ecosystems where rare and threatened species can thrive. An endangered species is very probable to become dead in the near future, either widespread or in a particular political jurisdiction. Sacred groves provide shelter and safety to those species. On the (site 5) Bdhiyachuwa Bhagvanpur Sacred groves an endangered species Parsa (*Tanacetum sanguineum*) was found which is listed in Chhattisgarh endangered species and is protected by this sacred groveTherefore, sacred groves are not only important for cultural heritage but also vital for the conservation of endangered species and ecosystem health.

Tourist spot

Sacred groves, while primarily valued for their cultural and ecological significance, also present opportunities for sustainable tourism. By attracting visitors interested in nature, spirituality, and cultural heritage, these groves can promote awareness and conservation efforts. However, tourism must be managed carefully to prevent over-exploitation and preserve the integrity of these ecosystems. In Sarguja there are two Sacred grove which serve as a tourist place (Table 5.) When balanced with environmental stewardship, tourism in sacred groves can provide economic benefits to local communities while supporting the long-term protection of these vital natural spaces.

Table 5. Tourist spot present in sites

SN	Sacred groves	Tourist Spot
1	(Site 1) Labji	Not present
2	(Site 2) Saanbad	Present
3	(Site 3) Sakalo	Not present
4	(Site 4) Sarganwa	Not present
5	(Site 5) Bdhiyachuwa	Present
6	(Site 6) Kalyanpur	Not present

CONCLUSION

This study highlights the importance of sacred groves in biodiversity conservation, particularly in the Sarguja region. While these sacred groves play a crucial role in preserving biodiversity and endangered species, their small size limits their overall impact on broader environmental health. The strong religious beliefs associated with these groves contribute to their protection, but the involvement of local communities alone may not be sufficient for long-term conservation. As sacred sites grow larger, external support from agencies such as the Forest Department and environmental organizations becomes essential to ensure effective management and continued protection. Strengthening local community involvement through capacity building and collaborative forest management is key to sustaining these sacred groves. Additionally, utilizing annual events at these sites as platforms for raising awareness can further enhance efforts to protect these ecologically significant areas. In conclusion, the conservation and management of sacred groves require a combined effort from local communities, government agencies, and NGOs to ensure their continued role in preserving biodiversity and cultural heritage.

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