
Preserving Nature through Faith: A Case Study of Sacred Groves in Kerala

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Abstract

India is a mega-diverse country in terms of biodiversity, communities, cultures, languages and traditions. Western Ghats of India, amongst 36 global biodiversity hotspots, extends in six states including Gujarat, Maharashtra, Goa, Karnataka, Tamil Nadu and Kerala. Kerala, the southernmost state of India, has a rich culture and heritage which is deeply connected with nature. Traditions of Kerala involve worshipping various components of nature including plants, animals, rivers and mountains etc. and one such century long tradition is protection of specific forest areas, known as sacred groves. These forest areas are considered sacred because of the presence of shrines of deities and are worshipped by certain communities. Among these grooves, Serpent worship is the most prevalent practice, leading to the identification of these groves as "Sarpa Kaavu." The whole grove is considered as a unique ecosystem with water bodies and rich endemic plant species making some sort protective web for animals inhabit the area. Over time many such sacred groves were converted to temples to preserve and conserve the ecosystem. In the past, traditional socio-cultural practices aim to integrate nature conservation with socio-cultural aspects. The study explores profound significance of sacred groves and how the associated rituals and beliefs contribute to safeguarding the natural environment on a larger scale. The study reveals the multitude of myths and folklore linked to these groves, resulting in people being involved in conserving the forest and biodiversity of the region. In conclusion, these groves not only endure as a socio-cultural legacy carrying traditions from thousands of years ago but also an integral component to achieve sustainability.

Keywords- Culture, Traditional Knowledge, Sacred groove, Kerala, Ecology and Environment

Introduction

Globally, India is known for its cultural and ecological richness spread across the vast expanse of its geography including mighty Himalayas, deserts of the Thar and Kutch, fertile Indo-Gangetic plains, Deccan plateau, eastern and western coastal lines, islands etc. From the lush green forest, mountains and rolling hills of the Northeast to the pristine islands, each geographical characteristic mirrors the people and their culture. Local communities play an important role in the traditional resource conservation and management system in various parts of India. These communities are involved in protection and management of various forest patches, known as sacred groves, through customary beliefs and law systems (Gadgil and Vartak, 1975). Communities have a strong belief that disturbing these sacred grooves would invite the wrath of the spirits to whom they are dedicated. Sacred groves are generally very small forest patches, area varies from few trees to several hectares, with endemic and endangered species of trees traditionally protected by local communities for their religious and cultural significance. In India, the total area occupied under sacred groves is estimated as 33,000 hectares which is 0.01 per cent of India's total area. According to an estimate India has around one hundred thousand such groves (Malhotra et al., 2001) scattered across the country and maximum of which are located in Maharashtra, Kerala, Karnataka, Andhra Pradesh and West Bengal (Agarwal, 2016). Sacred groves

are known from various titles in various regions for example 'Devrai' in Marathi, 'Devara Kadu' in Kannada, and 'Kaavu' in Kerala. Various community practices are associated with these sacred groves prevalent and one such ancient practice is serpent worship which is not only prevalent in various parts of our country but also across the world.

Kerala, nestled in the lap of Western Ghats, has earned the title 'Gods own country' owing to its rich cultural and ecological diversity. The distribution of sacred groves in Kerala does not overlap with the forested areas. Sacred Groves are mainly found in the plains of Kerala and estimated to cover about 500 ha of forest area is contributing 0.05% of the total forest area of the state (Prasad and Mohanan, 1995). The state offers a great variety of ecosystems, from the tropical evergreen forests and mountains of the Western Ghats to the undulating hills and shallow valleys in central Kerala, and farther to the Malabar coast with picturesque backwaters with extensive mangroves. In this background of ecological diversity, the cultural relationship with nature is manifested in the tradition of numerous shrines of Gods, Goddesses, and deities worshipped in sacred groves. One such tradition in Kerala is the serpent worship and various communities are involved in conserving the areas associated with serpent worship.

1.1 Kaavu: The Sacred Groves of Kerala

Kaavu is a term considered to come from a root, 'Kaakkuka', meaning "to guard" (Parvathy 2023). In this regard, the presiding deity of a Kaavu serves as a guardian, protecting the grove and its worshippers. Some examples of sacred groves include Bhagavathi Kaavu (goddess Bhagavathi), Durga Kaavu (the forest goddess Vanadevatha or Vanadurga), Ayyapan Kaavu or Sastha Kaavu, Maadan Kaavu or Yekshi Kaavu (spirits, demons) and Sarpa Kaavu (Serpent worship) (Murugan et al. 2008). When the presiding deity is a snake, it becomes a Sarpa Kaavu, or sacred grove of serpents and is a practice that dates back to the pre-Dravidian tribal cultures (Parvathy, 2023). Apart from being a hub of endemic species, these groves represent beautifully blend nature with spirituality. The tradition of Sarpa Kaavu represents a unique aspect of the cultural heritage of Kerala. Sarpa Kaavu is more prevalent in the plains of Kerala, specifically in the Districts of Kollam, Pathanamthitta, Alappuzha, Kannur, Kozhikode and Kasargod (Fig. 1). These are typically small groves mostly found in Hindu houses; the home of ancestors; smaller areas of forest land; or even in one's backyard, bearing an association with serpent gods (Murugan et al., 2008). According to the Kerala Forest Research Institute and the Ministry of Environment Forest and Climate Change, recorded sacred groves in Kerala range between 2,000 and 7,000, though estimates suggest that it could be as high as 30,000 (Report; Kerala Forests and Wildlife Department, 2019) in the beginning of the 19th century.

These dense patches of vegetation, particularly the oldest ones, house numerous endemic species of flora, from mangroves to other tropical forest species and bear crucial ecosystem services such as soil stability, groundwater storage and filtration, and carbon sequestration, contributing to the maintenance of local microclimates, conducive for the lush vegetation and numerous species of birds, insects and serpents to thrive (Lijin, 2022). It is believed that the deity's energy resides within the grove's vegetation, making these spaces highly sacrosanct. It bars the exploitation of resources, abandonment, or ill-treatment of sacred sites with the result that strict taboos are followed. These beliefs create a traditional value system, and particularly the fear of the curse of Nagas, or serpent deities, that is thought to bring misfortune to families not giving respect to the grove. It is the role of the community, therefore, not only that of the families in whose hands rest the management of the groves but also those who continue to have faith and engage in the rituals and festivals associated with Sarpa Kaavu, that has added to its dimension of sociological relevance and ensures that the culture of sacred groves remains a living part of Kerala's cultural heritage.

This article focuses on Sarpa Kaavu and its history and significance in relation to the environment management and Sustainable Development Goals (SDG), more particularly SDGs 11, 13, and 15. While sacred groves of all kind are important, this study is highlighted on Sarpa Kaavu, as they are more private and widespread in their elaborate performance rituals and ritual art, which have huge cultural and ecological significance, and also since the serpents are considered "living gods" living very closely with nature, more so than the other indigenous deities. (Devika, 2024).

1. Methodology

The research methodology employed in this study on Sarpa Kaavu and its role in environmental conservation used both primary and secondary data to provide holistic insight into the topic. The primary data collection was taken through semi-structured interviews with 10-15 people local community members and practitioners of the traditions. The interview questions focused on understanding the oral myths and beliefs passed on across generations as well as the current forms of rituals conducted in these shrines. The participants were inquired about the underlying reasons for participants' continued adherence to this longstanding tradition and their understanding of its ecological aspects and knowledge. Secondary data drew upon academic archives and papers as well as articles that have extensively discussed these sacred groves. The keywords such as "Sarpa Kaavu", and "serpent worship" were used to find these texts. This data convergence due to the dual approach enhanced the credibility and validity of the argument of this research. The qualitative data collected were conceptually analysed to comprehend the oral traditions underlying relations with the goal of environmental conservation inherent in the Sarpa Kaavu of Kerala.

2. Result and Discussion

The study integrates local community practice, folk and performing arts along with scholarly research, resulting in a wider understanding of both cultural significance as well as biodiversity conservation efforts in sacred groves of Kerala. Although the social barriers are appropriate, the custodians of many groves are of the opinion that in the current socio-cultural context, physical barriers like fencing and boundary wall are needed to protect sacred groves till the stakeholders develop a sustainable attitude towards sacred groves. It is suggested that a sacred grove biodiversity network (SGBN) of Kerala State may be built up as a broad programme of biodiversity monitoring (Chandrashekara, 2011).

2.1. Myths and beliefs

Approximately 600 years ago, the people of Kerala were introduced to a practice aimed at nature conservation and environmental protection mixed with cultural and religious sensibilities. The practice involves the worship of specific deities in shrines located within clusters of trees or 'Kaavu'. Serpent worship is the most common form of worship found in these shrines, which are referred to as Sarpa Kaavu. Kerala has the highest number of snake species in India, which might also explain why Serpent worship is a fundamental part of Kerala's culture. It is said that Parashurama granted the land of Kerala to humans based on the worship of snakes, and the people of the land have followed the custom of worshiping snakes and all the other living beings associated with the sacred sphere for centuries.

Like this popular folklore, many myths and beliefs culminated by the forefathers still exist in the minds of the people and it makes them abide by the practice. Another local folklore woven around the rise of this Kaavus is the story of Mahavishnu, or Lord Vishnu instructing the venomous snakes of the Kerala region to stop causing harm to humans and to stay at one place where people worship and conduct rituals honoring them. Thus, this Sarpa Kaavu came to exist and the fellow worshippers serve "Noorum palum", an offering of money and milk, which is essentially considered food for the shrine. Payasam (sweet rice pudding), Unniyappam

(sweet rice cakes), tender coconut, milk, ghee, and turmeric are also served as a part of rituals conducted here yearly and on special days. Some of the rituals include “Pulluvan Pattu”, “Sarpa Bali”, “Ayillyam Pooja” all performed by a Brahmin priest for the blessings of the family). Inside these sacred groves, one could see a plethora of trees and plants, with their vines intertwined making a web-like system. Many animal species including snakes are found, all surrounding the trees and the natural ponds (Jain N. 2020).

For the people of Kerala, these groves generate a sense of fear when they enter the groves and feel the divine presence. The trees of the Sarpa Kaavu are almost rarely cut since the belief that it would be harm to the family persists in the minds of the family members. However, a certain community called “Puder” is said to be bestowed by divine right to cut the trees. Even after centuries, this community is called upon in case any changes need to be made within the Kaavus. The limited human interventions in these spaces include lighting the lamp kept in these shrines or rituals like the occasional feeding of milk to the snakes (Devika, 2024).

If one hurts any snakes or trees inside the shrines, myths talk of the horrendous disease one could get. “Kaavu thheendiyal kolam vattum” or “desecrating the Kaavu will dry the pond”, is a common saying which signifies that if the sacredness and hygiene of the Kaavu are interrupted, the pond will vanish and the surrounding water of the region will dry which means a curse will fall on the family. All these practices were deliberately and brilliantly crafted by the ancestors to protect the environment with a hint of myths and folklore so that out of deference and fear, future generations would continue to conserve these regions. Even though these Kaavus were traditionally looked after by Koott Kudumbams or joint families, since most of them have disbanded now, the remaining family members take some sort of action to protect and conserve the Sarpa Kaavu as it is. Stories and folklore surrounding people who got cursed flow as oral tales from generation to generation, ensuring that Kaavus and the fauna associated with the Kaavus remain protected (Rajagopal, 2022).

2.2. Ecological importance

The sacred groves exist as a home to a variety of trees, herbs, shrubs, and plants. “Western Ghats is one of the hottest hotspots of biodiversity in the world. Sacred groves adjacent to the Western Ghats are treasure houses of several endemic and extremely rare flowering plants. According to a project report of KSCSTE-Malabar Botanical Garden & Institute for Plant Sciences submitted to Kerala State Biodiversity board, Coastal sacred groves of Kerala are also conserving some highly threatened plants identified by IUCN as Critically Endangered (*Vatica chinensis*), Endangered (*Hopea ponga*) and Vulnerable (*Santalum album*, *Saraca asoca*). Some species of trees that are inherently found in these sacred groves include Punna (*Calophyllum inophyllum*), Nagamaram (*Cannonball tree*), Vaka (*Albizia lebbek*), Chunnamb valli (*Acalyoha indica*), Sheelanthi (*Thespasia populnia*), Elanji (*Mimusops elengii*), Chembakam (*Magnolia champaka*), Pala (*Alstonia scholaris*), and Choriyanam (*Tragia involucrata*) etc.

2.3. Sustainability aspect

The Sarpa Kaavu can also contribute to achieving a total of three out of the seventeen SDGs sworn at the Paris Convention which should be accomplished by all the member countries by 2030. SDG11 relates to “making cities and human settlements inclusive, safe, resilient, and sustainable”. The Sarpa Kaavu, sacred groves, provides and maintains the clean and healthy environment because of the wide variety of flora and fauna in the grove. It resembles a sort of rainforest ecosystem as different varieties of plants are grown together in thick canopies of trees. Accordingly, the role of air pollution not being an exclusive problem in urban areas can be combatted with these groves. They can be grown in small areas and in urban residential areas or towns to further reduce the overall level of air pollution.

SDG13 relates to “taking urgent action to address the combat climate change and its aspects”. This relates to reducing the current level of global warming and preventing the Earth from reaching its “tipping point”. It also involves making a significant reduction in the net greenhouse gas emissions by 43% by 2030 which will ultimately lead to net zero emissions by 2050. Sarpa kaavu can play a huge role in achieving these goals as, when the number of trees increases in an area, either suburban or residential, it helps in reducing the overall carbon footprint of that area. Thus, these plants can help reduce the overall temperature of the Earth.

SDG15 relays the idea to “Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss”. This goal puts forth the idea of developing a healthier relationship with nature by addressing the three main issues of forest losses, land degradation, and species extinction. These sacred groves contribute significantly in achieving this goal. While creating a sustainable ecosystem, these groves also act as a storehouse of biodiversity, thus proving to be a place where animals and birds coexist in harmony. The intertwined trees with their interwoven roots help to hold the soil in place, thus aiding in soil conservation. Another notable aspect is that these roots also store the moisture that is absorbed during the rainy season. It can ultimately be used as a reserve in periods of drought, whereas, the adjoining streams and ponds to the groves flow perennially and consequently serve as a life source for the animals and birds residing in the groves.

3. Conclusion

The sacred groves of Kerala were crafted with ecological preservation in the minds of our forefathers in such a way that it binds people from all communities together to achieve the common goal of sustainability and biological conservation. The oral folklore they crafted traveled down generations in time and instilled a sense of fear and responsibility to take up the act of conserving Sarpa Kaavu which consequently led to the conservation of the environment. The study establishes that the Indigenous communities have been practicing various sustainable practices for eons thereby instilling a haven for biodiversity conservation and ecological preservation. The goals of “Sustainable Cities and Communities, Climate Action, and Life on Land” have created a lasting impact on the environment and have contributed significantly to the cultural progress of Indigenous communities and complex societies.

The species of trees found in these groves, with timely exploration, can help bring economic growth to everyday life and aid in the upliftment and welfare of the surrounding regions. Nevertheless, it is established that the Sarpa Kaavu in Kerala are significant repositories of ecological wealth and cultural heritage. Like many indigenous value systems across the world, they are feared to disappear due to a variety of reasons such as encroachment or transfer of land for economic purposes, want of knowledgeable people to carry out rituals, shrinking of joint families to nuclear ones among others. In conclusion, the study provided a strong case study to support the fact that “Ecology is the permanent Economy” and conservation, revival and management of traditional practices and faith is the key for achieve sustainable development.

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Figure 1. Pictures of a typical Sarpa kaavu looked after by various communities from the Alappuzha district, in the southern part of Kerala.



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