

SACRED GROVES – THE ‘VRUKSHAYURVEDA’ FOR ENVIRONMENTAL SUSTAINABILITY

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ABSTRACT

Religious beliefs and traditional customs in India have inspired respect for nature. There is almost no contradiction between religious beliefs and environmental protection. In this aspect, one related belief or tradition of nature worship entails the safeguarding of forest sections dedicated to deities or ancestral spirits. These dedicated patches are designated as “Sacred Groves”. Several tribes rely entirely on these forests for their survival, and their traditional practises have helped to maintain a significant number of wild plant species for a variety of reasons, including food, fibre, medicine, and shelter. Totems, holy groves, and other notions emerged as a result of religious belief systems protecting and conserving plant and animal diversity in the landscape. Sacred groves serves as major stores of plant and fauna diversity that are sustainably protected by local communities. Because of development activities and changes in people's attitudes toward religious beliefs and practises, unmindful and careless acts toward forests are occurring at an alarming rate, resulting in biodiversity loss and forest degradation.

This paper gives an overview of sacred groves' cultural and ecological components. The paper can be broken down into three sections:

- *Anthropological perspectives*
- *Biological and Environmental Aspects*
- *Threats and Opportunities*

**Vrukshayurveda – Vruksh (trees) + Ayurveda (traditional Hindu system of medicine).*

Keywords: *Vrukshayurveda, Environmental Sustainability, Ecological Components, Sacred Groves, Holy Groves.*

Introduction

Sacred Groves are a large area of virgin woodland that has traditionally been safeguarded by local communities as a whole and as a biodiversity-rich harbour. They are collectively protected forests with considerable religious significance for the people who protect them. Sacred groves can be as a few square meters small or several hectares large. Local deities and tree spirits are honoured in sacred groves. People think that any disruption in these sacred woods may offend the local deity, resulting in sickness, natural disasters, or crop loss. The degree of holiness/piety bestowed on sacred woods varies from region to region. Even the dry foliage/leafage and fallen fruits are left intact in some woodlands. The local communities themselves take the responsibility to protect and nurture the area. According to these protections, hunting and deforestation/ logging in the area are banned while other activities with more sustainable process such as honey and deadwood collection are allowed.

The introduction of Wildlife (Protection) Amendment Act, 2002, gives government the legal right to preserve these forests under ‘community reserves. Many rare and endemic species, and species having medicinal and economic value can be spotted here. They are home to the gene pools of some severely endangered plant species. It has been contemplated as a taboo to cut down the trees in sacred groves (Sen et al. 2020). There is a dire need of encouragement of developing management approaches to preserve sacred groves. The ethics and environmental wisdom which are encompassed through the religious beliefs can act as useful tools in management of natural resources. The plants and animal

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species of the sacred groves can be classified into taxonomy through the classification of the IUCN (International Union of Conservation of Nature) (A. Rim-Rukeh, G.Irerhievwie, I.E. Agbozu. 2013).

In terms of biodiversity, religious and cultural legacy, sacred groves provide an unavoidable link between past and contemporary civilization. (Khan M.L, Khumbongmayum A.D, Tripathi R.S. 2008).

Sacred Groves are not only seen in Indian context but is a predominant part of countries like Ghana, Nigeria, Turkey, etc. People, dating back to Palaeolithic period are trying to preserve the forests by worshipping them – this has been narrated by James Frazer in his book *The Golden Bough* (1935). These types of forests were usually enclosed within the walls of stone during the ancient Greece and Roman times. Though, initially these forests were open – air temples but soon became associated with monumental temples. There is a reference on sacred groves given in several ancient Indian texts. Like in *Vikramorvashiyam*, Kalidasa wrote "Then ignoring the pleadings of the king, she wandered into the sacred grove of Kumara. Her mind bewildered by the curse of her Guru; she failed to notice this transgression into an area forbidden to women (Downtoearth). No sooner did she enter than she was transformed into vine clinging to a tree at the boundary of the grove." (Downtoearth).



Fig 1: Sacred groves in Mawphlang (Shillong)



Fig 2: Sacred groves in Meghalaya

Distribution of Sacred groves in India

There are around 13,000 documented sacred groves in the country (Applied Environmental Research Foundation).

State	Local term for sacred groves	Number of sacred groves
Andhra Pradesh	Pavithravana	677
Arunachal Pradesh	Gumpa forests	65
Goa	Deorai, Pann	55
Manipur	Gamkhap, Mauhak (Sacred bamboo reserve)	166
Karnataka	Devara Kadu	1476
West Bengal	Garamthan, Harithan, Jahera	505
Maharashtra	Devrai, Devrahati, Devragudi	2820
Odisha	Jahera, Thukurumma	169
Meghalaya	Ki Law Lyngdoh, Ki Law Kyntang, Ki Law Niam	101
Kerala	Kavu, Sara Kavu	644
Puducherry	Kovil Kadu	108
Jharkhand	Sarana	29
Tamil Nadu	Swami shoal, Koikadu	1262
Uttarakhand	Deo Bhumi, Bugyal (Sacred Alpine Meadows)	126
Rajasthan	Orans, Kenkris, Jogmaya	560

(Source: jagranjosh.com)

The groves are frequently accompanied with ponds, streams, or springs that help supply the local people's water needs. Ex. -Khecheoprai Lake in Sikkim.



(Source : cpreec.org;2021)

Methodology

A narrative review of various research articles and papers have been done in this paper. The paper is based on secondary data analysis with an anthropological perspective.

Anthropological Perspective

- Sacred groves are an ancient and widespread institutions in old world cultures. India's institution dates back to the pre-agrarian time of hunting and gathering.
- Ownership and management :
 - **Under Control of State Forest Department**
 - Orans in Rajasthan are owned by Gram Panchayat.
 - **Under the control of revenue and other governmental departments**
 - Temple committee manages Hariyali grove in Garhwal.

- **Privately owned**
 - Groves of Mahadeo kolis in Pune are managed by clan leaders.
- **Ethnicity**
 - Sacred groves can be found among tribals and non-tribals alike.
 - Regional variation can be observed.
 - No clear association with castes.
- **Gender**
 - **Gender of the deity associated with the sacred grove**
 - In Maharashtra, more number of sacred groves were dedicated to goddesses compared to male deities (phallus worship) and ancestral worship.
 - In Koraput, Odisha, the deities are mostly females.
 - **Gender of the priest serving the groves**
 - Priesthood remains with males.
 - **Nature of extent and access to men and women in taking part in festivities, rituals, etc. related to groves**
 - Women are not allowed to enter groves after they attain puberty.
 - Oraons of the Chota Nagpur Plateau celebrate a festival *sarana* in sacred groves, where women are not allowed to participate in the *sarana* but can dance in an *akhara* near the grove.
 - **Role of gender in management of groves**
 - Practically, women has no part in the management of sacred groves.

Religious

Sacred groves are predominantly associated with deities and to propitiate with the deity several rituals and festivals are being performed. It can include ritual sacrifices of animals like fowl, pig, goat, buffalo, etc. or sometimes the sanskritized (Srinivas MN. 1971) form of grove offerings are made.

These rituals are carried out to ensure the health of humans, animals, crops, and so on.

Socio – cultural

Several festivals are performed at sacred groves.

On Deepawali, liquor and food is made by the Bhils.

Marriage ceremonies of Mahadeo Koli of Pune are held in these groves.

- **Economic**
 - Biomass harvesting, which allows local people to reap direct advantages from the groves. Like collection of dried leaf litter and dead wood and harvesting of certain species of trees (*Casuarina*, *Magnifera indica*).
 - Exchange of gifts take place at sacred groves during some festivals.
 - Activities are carried out with economic ramifications in order to bring good rainfall, animal health, and disaster prevention.
- **Political**
 - Linkages between the forest deities of Western Ghats and pastoral nomads can be observed which showcases the territorial affinity.

Biological and Ecological Dimensions

Many ayurveda, tribal, and folk remedies are nurtured and stored in sacred woods. The species found here are not threatened with extinction, thus if conserved, they might have a bright future. The genotypes of some species can also be preserved which can be useful in tree breeding programmes. Groves serve as indicators of the region's natural productivity. In Manipur's sacred groves, species such as *Albizia lebbeck* and *Ficus glomerata*, which are ecologically useful for us and contain significant amounts of nitrogen, phosphate, magnesium, and calcium in their leaves, are identified. *Casuarina* which is also called as *kattadi* and *savukku* helps in nitrogen fixation in symbiotic association with bacteria *Frankia*, it also provides fuel wood, pulp for paper making, can be used as biomass generating energy,

can also be used as shelterbelts in coastal areas. They can be used as a replenishable source of honey. The vegetation covers help in reducing soil erosion and preventing desertification in the states like Rajasthan. Sacred groves also aid in the replenishment of aquifers. These groves play an important role in soil conservation and nutrient cycling (Ex. – Mawsmat sacred groves in Cherapunji).

In recent times, these sacred groves have become biodiversity hotspots, as numerous species seek refuge in the locations while habitat devastation and poaching still continue. These groves typically protect endangered plant and animal species from extinction. They have a high level of genetic diversity. They are often termed as “*Lungs of urban landscapes*”.



Sacred grove of Meghalaya

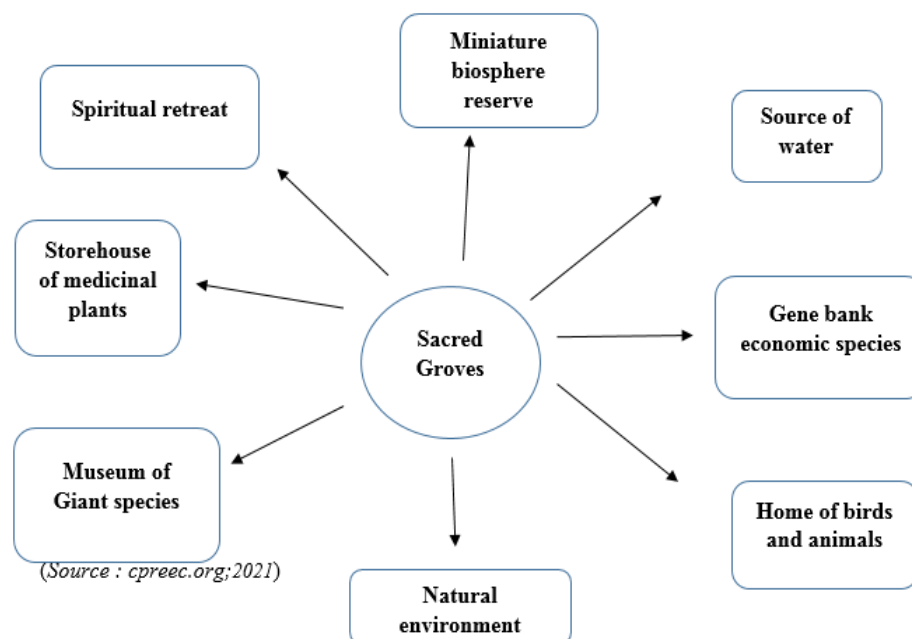
Fig 3: groves in Meghalaya



Fig 4: pavitra vanam in Kerala

Importance of Sacred Groves

With many floral and faunal species on the verge of extinction, these sacred forests have grown even more valuable as population pressures have become uncontrollable and unsustainable. The importance of sacred groves are as under:



- **Miniature Biosphere Reserve:** A large number of biodiversity resides in these groves who are globally threatened.
- **Source of Water:** Lakes and ponds are associated with a number of groves. Ex. – *Kheccheopalri* Lake in Sikkim.

- **Gene Bank Economic Species:** For *in – situ* conservation of endangered species.
- **Home of Birds and Animals**
- **Natural Environment:** They help in maintaining the microclimate of the region. They help in conserving water and preventing soil erosion and nutrient loss.
- **Museum of Giant Species**
- **Store of Medicinal Plants:** Plants like *babul, khejri, borjhari, ashwagandha, kalisindh, beel, neem, khus*, etc.
- **Spiritual Retreat:** Sacred groves are associated with religion. It talks about worshipping the animistic forms and spirits by the people along with conserving the environment.

Threats

- **Commercial Forestry:** Local forest lose their rights to the government which led to the exploitation of sacred groves in the name of commercialization.
- **Development Projects:** Because certain sacred trees are located on government-owned land, they are destroyed for the sake of development.
- **Shift in Belief System:** Conversion to another religion may result in the degradation of these holy groves and the elimination of traditional belief systems that were central to the concept of sacred groves.
- **Sanskritization:** Local folk deities are replaced by Hindu gods and goddesses, resultant to which temples are being erected in the sacred groves.
- **Pilgrimage and Tourism**
- **Removal of Biomass:** The continued practice of removing the biomass and grazing of cattle over the generations have resulted in the waning of groves.
- **Encroachment:** Done by local communities, government and people migrating from other areas.
- **Modernisation and Market Dynamics:** Local traditions are being challenged by the urban western culture and are now considered as "mere superstitions". Respect for local traditions is not fostered through modern education.
- **Fragmentation and Perforation:** Due to railway lines, highways, and power transmission lines, species and biodiversity are lost, and the ecological realm is disrupted.
- **Invasion by Foreign Species:** A serious threat is posed by the invasion of exotic weed species like *Chromolaena odorata, Prosopis juliflora*, etc.
- **Anthropogenic Pressure:** Especially through urbanization.
- Traditional ways of resource management are not used due to nature – human conflict (Khan M.L, Khumbongmayum A.D, Tripathi R.S. 2008).

Opportunities

Despite all the above mentioned threats, there are ample opportunities for strengthening the institution of sacred groves.

- Sacred groves have been revived in several parts of the country while in some parts like Rajasthan, Jharkhand and Chhattisgarh new groves are established.
- Establish plantations of *pavitravana*(sacred forest) – Karnataka and Kerala.
- NGOs and local people to work together in order to manage and preserve the groves.
- International agencies like UNESCO and World Bank has included sacred groves in their agendas.
- Level of awareness is being increased regarding cultural and ecological aspects.
- The Indira Gandhi Rashtriya Manav Sangrahalaya (IGRMS) has recreated sacred groves from around the country in one location. In the communal habitats, these sacred grove reproductions are supposed to function as living nurseries of ancestral and group identity, purity, and longevity.

- To illustrate the value of sacred groves, an indoor exhibition was organized utilising images, maps, and other media.
- A travelling exhibition was also designed to raise awareness about the groves, engage with locals, and strengthen the country's diverse sacred groves.

Conclusion

Biodiversity Values

- Conservation of indigenous plant species for their option value; resource consumption and production value.
- Forest product extraction should be limited to allow for proper restoration.
- The forest's carrying capacity must not be surpassed.
- Understanding what intellectual property rights are (IPR).
- Local traditional forest communities' resource sustainability.
- Traditions that protect the environment should be supported.
- Plantations of indigenous species.
- Eco-development of the villages in the area.
- Better management is required by establishing Community Conserved Areas.
- Laws and the Biodiversity Act of 2004 are being strictly enforced.
- Better management through local participation through the creation of Community Conserved Areas.
- To lessen the threat, local eco-restoration and ecotourism are used.

Surrounding Land Use (Grazing, Fodder)

- Environmental concerns should be handled through land use patterns.
- Community reserves, shared forest management, and eco-development are examples of concepts and programmes that can be used.
- Eco – rehabilitation of damaged area and development of corridor forest; links to regional Protected Area Network.

Pilgrimage

- Money or gifts are offered to the deity to aid in the upkeep of the sacred grove.
- Tourists and pilgrims must be kept under check.
- Ecotourism training.
- Initiatives for local.

Sacred groves are considered equal to “Nectar”. We have to conserve them in order to save tribal and local communities on smaller level and ecology on the larger level and for the future generations. Sacred groves can be proved as the “*Vrukshayurveda*” i.e. trees which protect the lives. The real question is “Can sacred groves become the charioteer of environment sustainability and protect the humanity?”

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