

## ORIGINAL RESEARCH ARTICLE

## SACRED FORESTS AN ANCESTRAL BELIEFS AND CONSERVATION: SPECIAL REFERENCE OF PITHORAGARH DISTRICT, KUMAUN HIMALAYA, UTTARAKHAND

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## ABSTRACT:

Sacred natural sites are part of a broader set of cultural values that different social groups, traditions, beliefs or value systems attach to places and which 'fulfil humankind's need to understand, and connect in meaningful ways, to the environment of its origin and to nature'. The term 'sacred natural sites' implies that these areas are in some way holy, venerated or consecrated and so connected with religion or belief systems. Various anthropogenic pressures due to developmental activities, urbanization, exploitation of resources and increase in human population have threatened many sacred forests of the country. The study was conducted in Pithoragarh district of Uttarakhand, India. Eight sacred forests were observed during present study. During survey 28 villages were studied and 18 local communities were recorded around sacred forests. Importance of the sacred forests in maintaining the biological diversity and meeting the basic livelihood needs of the village community has continued and will be maintained for the future generations.

**KEYWORDS:** Sacred Forests, Belief, Biodiversity conservation, Uttarakhand

## INTRODUCTION:

Those places where nature and humanity meet, and people's deeper motives and aspirations are expressed through what is called 'the sacred'. 'Sacred' has different meanings to different communities. At the basic level it denotes deep respect and 'set aside' for purposes of the spiritual or religious. Sacred natural sites are part of a broader set of cultural values that different

social groups, traditions, beliefs or value systems attach to places and which 'fulfil humankind's need to understand, and connect in meaningful ways, to the environment of its origin and to nature' [1]. The term 'sacred natural sites' implies that these areas are in some way holy, venerated or consecrated and so connected with religion or belief systems, or set aside for a spiritual purpose. The growing recognition of the political status of indigenous peoples provided in 2007 by the United Declaration on the Rights of Indigenous Peoples [2] has significantly increased awareness of the deeper dimensions of oppression and also of resilience. The first scholar to document sacred forests of the State was D. Brandis, the first Inspector General of Forests, who wrote about occurrence of sacred forests in 1897 [3]. The first authentic report on the sacred forests is the Census report of Travancore of 1891 in which Ward and Conner (1927) reported 15,000 sacred forests in Travancore. Historical records, legends and the folk songs, particularly certain devotional songs like "Thottampattu" sung in praise of Lord Ayyappan throw light on sacred forests of ancient Kerala. "Thottampattu" (believed to have been composed during 500-600 AD) names 108 major "Ayyappan Kavus" and mention about numerous "Ayyappan Kavus" distributed all over Kerala. According to surveys, most people believe that we have an obligation to avoid the extinction of species and races and the destruction of ecosystems caused by our own actions (WWF, 2005). A symbiotic relationship exists between biological and cultural diversity. This relationship is an important factor for ensuring sustainable human development. Nature provides light, air, food, and water through living process of creative renewal. This awareness of life in nature as a precondition for human survival led to the worship of light, air, food, and water. Centuries of religious colonialism in various degrees extirpated traditional spiritual beliefs and practices. At a landscape level, anthropologists have long recognized the sacred status that cultures have given to nature not only in specific sacred sites[4] but also in larger areas of cultural significance and entire landscapes. After the 2003 Congress, IUCN's Specialist Group on the Cultural and Spiritual Values of Protected Areas (CSVPA) that had formed in 1998 continued the work on guidelines for the management of sacred natural sites [5]. CSVPA has since advanced a significant amount of work on sacred natural sites and species including this volume[6]. The urge for the protection of sacred natural sites have also been recognized by the Convention on Biological Diversity (CBD) and the UN Permanent Forum on Indigenous Issues. The CBD in 2004 developed the Akwe Kon voluntary guidelines for the conduct of cultural, environmental and social impact assessments regarding proposed developments that may affect sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities (Secretariat of the Convention on Biological Diversity, 2004). At the political level, as described before, the adoption of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) is an important

benchmark. Article 12 in particular provides significant political leverage for developing appropriate policies for the protection and recognition of sacred natural sites at the national level. It states:

Traditional African religions often viewed land and its resources as communal property that belonged not only to the living but to their ancestors and to future generations [7]. In many cases, the relationship between people and the land was a matter of spiritual concern, and such religions have been called “profoundly ecological” [8]. Traditional conservation practices in the form of nature worship have played an important role in protection and conservation of biodiversity in India [9].

They may also represent important traditions that are being lost as new generations do not continue oral histories and cultural practices. In addition, sacred forests conserve habitats that are not represented within the current PA system, Bhagwat & Rutte 2006) and may serve as refugia for endemic species [9] [10]. These are reported to be relict forests and may be the only remaining climax vegetation of an area. Sacred sites, areas and geographies are nearly universal phenomena [11]. Throughout the world, cultures recognize sites endowed with religious, historical, geophenomenal and cultural significance [12]. Sacred sites have variously been attributed as having resident deities and spirits, storing rare and extraordinary flora and fauna [12]; [14], inducing exceptionally vivid or lucid dreams [15] [16] and heightening meditative states [17]. Many of these sites occur within natural settings, and the interrelatedness of sanctity and the environment is a frequent theme.

**Global scenario:**

Sacred forests are a very ancient and widespread phenomenon in the old world cultures. References about sacred forests have been made in Greek and Sanskrit classics. Sacred forests also feature prominently in many Asian and African mythologies and cultures, most notably in India, Japan, West Africa, and Anatolia. In Syria, some sacred forests are believed to have been made during Assyrian times. The most famous sacred forest in mainland Greece was the oak forest at Dodona. The forest was designated as an UNESCO World Heritage Site in 2005. The Seifa-Utaki consisting of a triangular cavern formed by gigantic rocks was designated as a UNESCO World Heritage Site in 2003, contains a sacred forest with rare, indigenous trees like the Kubanoki (a kind of palm) and the Yabunikkei (the wild cinnamon, *Cinnamomum japonicum*). Direct access to the forest is forbidden. Globally, sacred forests often have associated myths and taboos on the use of specific plants and hunting of certain species of animals within the area. These traditions can serve a conservation role because some of the sacred forest fragments represent the sole remaining forests and the last remaining locations with potential for conservation of flora and fauna. For example, church forests in Ethiopia protect some of the last remaining fragments of tropical afro-montane forests [18].

**Indian Scenario:**

In India, as in other countries of the world, many communities practice different forms of worship of nature. One such significant tradition of nature worship was that of providing protection to patches of forests designated as sacred forests dedicated to deities or ancestral spirits. Sacred forests were dedicated by local communities to their ancestral spirits or deities. The concept of sacred forests in India has its roots in antiquity, even before the Vedic age, the Vedas representing the only recorded remains of the thoughts of the ancient Aryans who migrated into this sub-continent. Sacred forests have preserved many rare and endemic wild plant species, many of which hold potential benefit to man in medicine, agriculture and industry. In fact, sacred forests represent the ancient Indian way of in situ conservation of genetic diversity. In India, the sacred forests were reported earlier from the Himalayas, North-east India, highlands of Bihar, Orissa, Madhya Pradesh, Andhra Pradesh, Karnataka, Tamil Nadu and Kerala. Earlier workers have studied floristic and ethnobotanical aspects of sacred forests and provided detailed scientific account of the sacred forests in India [19] [20] [21] [22].

In India, biodiversity outside protected areas is rich because of close relationships between religious, socio-cultural beliefs and conservation. Rapid decline in biological diversity – species, ecosystems, and genetic diversity is one of the critical challenges of the 21<sup>st</sup> century. Indian culture evolved in the forest, first during the Vedic period and later during the times of Buddha and Mahavir. Religion aids the conservation of natural biodiversity in several different ways. The first is by providing ethical and social models for living respectfully with nature. For most cultures, religion is a primary means of judging right and wrong. These ethical beliefs and religious values influence our behaviour toward others, including our relationship with all creatures and plant life. Forests in India remain central to its civilizational evolution. In India, ‘Aranya Sanskriti’ or a forest culture evolved during the ancient times as education was primarily given in the forest called “ashramas”. These were the places where most of the scientific research and cultural writings were done. In the Rig Veda, forests are described as Aranyani or mother goddess, who ensures the availability of food to human kind and takes care of wild life. Some researchers believe that there may be as many sacred sites as protected areas (WWF, 2005). However, many of them are threatened due to fragmentation, habitat degradation, infrastructure development, disputes over land, and a general lack of respect for their intangible value [23] The combined effects of such activities have led to the degradation of areas that have been held sacred by particular cultures for hundreds or even thousands of years. The practice of biodiversity conservation is deeply rooted in science along with the associated secular and materialistic world view.

The finest sacred forests of India presumably occur in the Sarguja district of Madhya Pradesh. Here every village in the area has a forest about 20 hectares in extent. What is remarkable is that not only plant, but also animal life receives absolute protection in these forests. The forests therefore serve as sanctuaries for herds of ungulates as well. These forests are locally known as "Sarana" forests, a word that probably derives from the Sanskrit "Sharana" or sanctuary. These community-protected India has a well established ancient tradition, more in the highlands, of protection of patches of forests as sacred. Though these forests are devoted to gods with many taboos associated with tree felling in such areas, the intimate association of such sacred forests or sacred forests with water bodies, in the form of streams, rivers, ponds and lakes, swamps or springs, is a well acknowledged fact. Based on studies in the Himalayan states of Himachal Pradesh and Meghalaya, Khiewtam & Ramakrishnan (1993) and Singh et al. (1998) reported the role of forests in reducing run-off and soil erosion, preventing landslides and in conferring ecosystem stability [24] [25]. Vertical stratification in the untrammelled humid tropical forests along with the extensive root network covered with leaf litter are linked to increased soil percolation, recharge of ground water [44]. Sacred forests on the southeast coast of India are the only remnants of dry evergreen forest habitat [26]. One region in India, the Western Ghats not only has a very high number of sacred forests [27], it is also recognized globally as a 'biodiversity hotspot,' meaning that it simultaneously has a high concentration of unique species and is under extreme resource use pressure (The first authentic report on the sacred forests appeared in the Census report of Travancore in which. Lt. Ward and Lt. Conner reported the presence of 15,000 sacred forests in Travancore [28].

These forests sanctify the vegetation of the area already existing there, or planted at the time of creation of the forest [20] [29] had stated that holy forests of India are so important to Indian life and this institute is very ancient, before humans had settled down and raised livestock and arable land. Sanctity of a place as sacred forest is older than awareness of man for ecosystem. When the burning problem of biodiversity conservation is discussed about, sacred forest which is an indigenous mean of conservation should not be kept untouched [30]. It has been emphasized as the role of a culture and religion towards environment. It is a folk conservationist strategy which should be revived as social forestry programme by the Government [19] [31] have studied cultural and ecological dimensions of sacred forests, but the SGs of Uttarakhand are mentioned in brief and are to be studied carefully, as not only tribal but the common man is also in kin with the deity and SG. Some of the documented SGs in Uttarakhand are Bughyals, Hariyali, Devvans etc. [32] and some of the preliminary study were also conducted [33]. The traditional worship practices show the symbiotic relation of human beings and nature. Gadgil and Vartak (1975) have traced the historical link of the sacred forests to the pre- agricultural, hunting and gathering stage of societies [19]. The

area of sacred forests ranges from few square meters to several hectares. Sacred forests provide the inextricable link between present society to the past in terms of biodiversity, culture, religious and ethnic heritage.

Various traditional communities of our country follow nature worship in their own ethnic ways, based on the premise that all creations of nature have to be protected. The concept of sacred forests could be traced to such communities as have preserved several virgin forests in their pristine form by dedicating them to the ancestral spirits or deities. Gadgil and Berkes (1991) have mentioned that various traditional approaches to conservation of nature require a belief system which includes a number of prescriptions and proscriptions for restrained resource use [34]. Dafni (2006) elaborated the typology and worship status of sacred trees in the Middle East and mentioned about 24 known reasons for the establishment of sacred forests [35]. All forms of vegetation in the forests are supposed to be under the protection of reigning deity of that forest, and the removal of even a small twig is a taboo [36]. Sacred forests can be used as indicators for potential natural vegetation [37] and are vital for well being of the society. Karanth (1998) opined about the alternative concept of 'sustainable landscapes' in combination with the ideas of the emerging discipline of ecological economics and may provide useful tools for protecting the sacred forests in which our wildlife has to survive into the 21st century [38].

Besides, the sacred forests provide a number of ecosystem services such as reduction in erosive force of water, conservation of soil, maintenance of hydrological cycle, availability of water of desired quality and natural dispersal of seeds of useful species. Existence of Sacred Forests across the Globe in India as well as in parts of Asia and Africa, care and respect for nature has been influenced by religious beliefs and indigenous practices. The existence of sacred forests has been reported in many parts of Asia, Africa, Europe, Australia and America by Hughes and Chandra (1998). Forests are also reported from Ghana, Nigeria, Syria, Turkey and Japan [20]. A document of MAB (1995) has described the sacred forests present in Ghana, Senegal, and Sumatra. Several small size sacred forests were reported from Nepal by Ingles (1994). In Afghanistan, after advent of Islam, the creation and conservation of sacred forest became a part of historical and geographical tradition of the rural people. Sacred forests are found all over India especially in those regions where indigenous communities inhabit. In India the earliest documented work on sacred forest is that of the first Inspector General of Forests, D. Brandis in 1897. Later, [20][21] traced the historical link of sacred forests with the pre-agricultural, hunting and gathering stage, before human being had settled down to raise livestock or till land.

Most of the sacred forests reported from India are in the Western Ghats, North Eastern India and Central India [21] [39] Sacred forests have been reported in Meghalaya [40] [41], [42] also

reported the occurrence of sacred forests in Meghalaya, Bihar, Rajasthan and the states along the Western Ghats. Their existence along the Himalaya, from northwest to northeast, was described by [43]. The forests in Karnataka have been protected in the names of 165 different deities and perhaps this state has the highest density of the forests in the world and could be regarded as the 'hotspot' of sacred forest tradition in the world [27]. These monasteries are mainly in West Kameng and Tawang districts of the state and 58 GFAs were reported from these two districts [31] and a few sacred forests from Lower Subansiri and Siang district of the state [44]. Dimasa tribes in the North Cachar hills in Haflong district of Assam call sacred forests as "Madaico". The size of Madaico is generally not more than one acre. The biodiversity of Indian Himalayas has been well known as an important source of traditional medicines since million of years and has been explored by people from across the world. In fact, the association of religion with ecosystem management is interwoven in the symbiotic network of the Himalayan communities [45].

The international organizations such as United Nations Educational, Scientific and Cultural Organization (UNESCO), Man and Biosphere (MAB) and the World Heritage Convention (WHC) clearly recognize the importance of sacred forests or sites and place them into the context of sustainable development. Therefore, the international organizations continue to play a leading role to conserve and benefit from biodiversity through protection of sacred forests and sites [46]. In India, it is estimated that there are between 100,000 and 150,000 sacred forests throughout the country [31]. These forests have higher richness and regeneration of medicinal plants than reserve forests [47]. They also serve as rich repositories of biodiversity of endemic, endangered and rare species flora and fauna. Several studies have documented the role of sacred forests in protection and conservation of biodiversity all across India [48][49][50].

#### **Uttarakhand Scenario:**

Kumaun Himalayas form an important part of the Uttarakhand state in north India. It is one of the major centres for cultural and traditional diversity, herbal medicines and rich floristic wealth including many endemic and rare plants. The rural communities of this region are very much dependent on biological resources for their sustenance. Sacred forests in Kumaon Himalaya are rich in biodiversity and a number of such forests are present in every village or a group of few villages having own deity, often surrounded by a forest patch considered as sacred [51]. Earlier, reports on Nakuleshwar, Haat Kali, Malya Nath and Patal Bhuvenshwar, Chamunda devi, Thal kedar, Pasupatinath, Golu devta sacred Forests [52][53][54][55][56] limited their studies with conservation of biodiversity and some ethnobotanical uses. Soil characteristics of sacred forest (Chamunda devi, Thal kedar, Pasupatinath, Golu devta) were also done in Pithoragarh district of Uttarakhand[57]. It is notable that, the sacred forests harbouring rich medicinal plant growth but scanty studies have been

carried out to document these resources and their importance with respect to the local people. Keeping in view the need for highlighting the role of sacred forests as repositories of medicinal plants and their applications by the local people.

**ECOLOGICAL SERVICES OF SACRED FORESTS:**

Biodiversity keeps the ecological processes in a balanced state, which is necessary for human survival. Therefore, the biodiversity-rich sacred forests are of immense ecological significance. They also play an important role in the conservation of flora and fauna. Besides, several rare and threatened species are found only in sacred forests, which are, perhaps, the last refuge for these vulnerable species. Several ecological studies have been carried out in these sacred forest patches. Several ecological investigations have been made in sacred forests of Meghalaya [58][59].

**ETHNOBOTANICAL IMPORTANCE OF THE SACRED FORESTS:**

Sacred forests are the good source of a variety of medicinal plants, fruits, fodder, fuel wood, spices, etc. The study of interrelationship between the human beings and plants and animals in their surrounding environment (i.e. ethnobiology) is very revealing. Some interesting ethnobotanical studies were conducted [36] in the sacred forests of Maharashtra. A study of the tree wealth in the life and economy of the tribal people in Andhra Pradesh revealed that various species are used by the different ethnic groups for various purposes including the treatment of common diseases and disorders[60]. There is a need to record and document their knowledge of various medicinal plants, which are used for treating different ailments by local practitioners [61].

**DEGRADATION OF THE SACRED FORESTS:**

Belief and taboos are the constructive tools for conserving the sacred forests, and erosion of belief and taboos has led to deterioration of forests [21]. It has been seen that religious beliefs and taboos that were central to the protection of sacred forests are being eroded over the years due to various reasons and thus the present status of sacred forests is rather precarious. Various anthropogenic pressures due to developmental activities, urbanization, exploitation of resources and increase in human population have threatened many sacred forests of the country. A study on the status of some sacred forests in the Himalayan region indicated that the economic forces are influencing the traditional communities to discard the community-oriented protection to these forests and they are now being exploited [62][25]. Totey and Verma (1996) argued that the rural poor depend upon biological resources for meeting 90% of their day-to-day needs [63]. So, until and unless viable option is provided to these people for sustaining their economic condition, any step for the conservation of the sacred forests will not be successful.



Following significant points emerge from the foregoing review:

- It is very important to uphold traditions and beliefs in order to protect and conserve these unique forest patches which represent the relict vegetation of the concerned area.
- These forest patches are no longer free from anthropogenic pressure. The disappearance and/or degradation of sacred forests not only symbolize the loss of the rich relict flora and fauna but also its rich tapestry of culture associated with the forest [27].
- Management of sacred forests and sacred sites through the traditional local system is now being challenged by a number of economic and social issues, and thus the traditional methods are rendered less effective. This calls for external intervention taking the local people into confidence.
- Important sacred forests should be brought under the 'Protected area Network' to ensure their proper conservation.
- Ecological services rendered by sacred forests needs to be highlighted and people should be made to realize that the conservation of forests is crucial for their sustenance.

These forests have traditionally been conserved in the past, however, in the recent times, the scenario has changed due to decline in traditional value systems. With improved accessibility and urbanization, sacred areas have turned into tourist places to serve economic interest [62]. Sacred forest in hills of Garhwal and Kumaon (Uttarakhand) are mentioned in old Hindu scriptures like the Puranas. Believing trees to be abode of gods and ancestral spirits, patches of forests near villages are established, where deity/deities are worshipped. There are some well known sacred forests which truly represent the wealth of a religion based conservation traditions as reported by [64] [65]. Even though the biological diversity of Himalaya is very rich, there is little information available on the sacred forests and the conservation of biodiversity in Garhwal Himalaya [32]. It is very difficult to report the exact number of sacred forests in Uttarakhand, however, efforts made by some authors like 32 sacred forests by [32] are appreciable. The exclusion of local people is believed to be one of the reasons why protected areas are ineffective, despite the large sums of money and manpower invested in them [66].

The Convention on Biological Diversity, adopted at the 1992 Earth Summit in Rio de Janeiro, acknowledged the need to protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements (Article 10). A number of international gatherings have since been held in relation to this issue, such as the 1998 UNESCO symposium on "Sacred sites, Cultural Diversity and Biological Diversity". They reflect a growing realization of the importance of sacred sites as a component of protected area networks.

**MATERIAL AND METHODS:****Site:**

The study was conducted in Pithoragarh district of Uttarakhand state, India. Survey was done during year 2015-16. In order to achieve authentic information, an extensive dialogue with the inhabitants of Villages around sacred forests conducted.

**RESULTS:**

Eight Sacred forests were recorded during present study. Eight sacred forests represents: (1) Haat Kalika sacred forest, Gangolihaat (2) Chamunda Devi sacred forest, Gangolihaat (3) Betal devta sacred forest, Kanalichina (4) Thal kedar sacred forest, Badabe (5) Psupatinath sacred forest, Chandak (6) Golu devta sacred forest, Ratwali (7) Thakil Dev sacred forest, Pithoragarh (8) Veshno Devi Sacred forest, Gangolihaat (Figure 1&2).The approximate elevation of the six sacred forests ranges from 1465 m to 2602m above sea level (Table1).

**Table 1: Detail Description about Sacred Forests, Pithoragarh district, Uttarakhand**

Sacred forest	Altitude (m asl)	Forest type	Name of Villages	Communities
Kalika	1695m	<i>Cedrus deodara</i>	Haat, Rawal gaon	Rawal, Pant, Joshi, Pathak, Mehta, Bhandari, Karki, Negi
Chamunda	1795m	<i>Cedrus deodara</i>	Hanera, Chodhiyar, Churiyager	Joshi, Upreti, Pant, Tamta, Pathak
Betal Devta	1504m	<i>Querques leucotrichophora</i>	Satgad, Bhandarigaon, Palli, Kandali, Gudoli, Siroli	Sirola, Upadhyay, Joshi, Bhandari, Arya, Ram
Thal kedar	2602m	<i>Querques leucotrichophora</i> & <i>Rhododendron aeboreum</i>	Marsoli, Devdar, Bilai, Soungaon, Badabe, Toil, Khatera	Bhatt, Negi, Oli, Joshi, Ram, Kohli
Psupatinath	1906m	<i>Rhododendron aeboreum</i>	Chhera, Dhunga, Chandak	Joshi, Bisht
Ratwali	1807m	<i>Querques leucotrichophora</i>	Ratwalli, Silloni, Majhera	Joshi, Pandey, Mehta
Thakil Dev	1465m	<i>Querques leucotrichophora</i>	Khatera, Badabe	Bhatt, Joshi, Pant
VeshnoDevi	1836m	<i>Querques leucotrichophora</i>	Chodhiyar, Gangolihaat	Joshi, Bisht



A



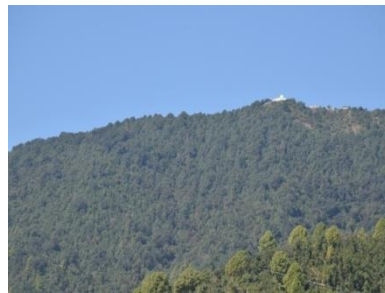
B



C



D



E



F



G



H

**Sites of Sacred Forests, Pithoragarh district, Uttarakhand**

**A: Chamunda devi, B: Haat Kalika, C: Kanalichina Betal, D: Pasupatinath,**

**E: Thal Kedar, F: Golu Dev, G: Thakil Dev, H: Veshno Devi**



A



B



C



D



E



F



G



H

**A: Chamunda devi Temple, B: Kalika Devi Temple, C: Pasupatinath Temple,  
D: Betal Devta Temple, E: Thal Kedar Temple, F: Thakal Dev Temple,  
G: Golu Dev, H: Veshno Devi**

#### **CONCLUSION:**

On the basis of above studies we can say that sacred forests have a significant role in biodiversity conservation through ritual beliefs. Eight sacred forests were observed during present study in Pithoragarh district of Uttarakhand. Results shows that 28 villages were studied and 18 local communities were recorded around sacred forests. Hence, the importance of the sacred forests in maintaining the biological diversity and meeting the basic livelihood needs of the village community has continued and will be maintained for the future generations.

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