

Sacred Groves of Maharashtra: A Spatial Review across Konkan, Western Ghats, Vidarbha and Marathwada

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ABSTRACT

Sacred groves, locally known as Devrai or Deorai, are traditionally protected forest patches conserved through religious beliefs and customary practices. In Maharashtra, sacred groves occur across diverse ecological and socio-cultural regions, yet their spatial distribution and regional drivers have not been comprehensively reviewed. The present review synthesizes district-wise and region-wise literature to examine the spatial patterns of sacred groves across Konkan, the Western Ghats belt, Vidarbha, and Marathwada. Published inventories, floristic surveys, ethnographic studies, and regional case reports were analyzed to identify distribution trends, key drivers, and conservation challenges. The review highlights strong clustering of sacred groves in Konkan and the Western Ghats, influenced by high rainfall, hydrological importance, and enduring cultural institutions, while Vidarbha and Marathwada show sparse documentation and greater vulnerability due to climatic stress and land-use pressures. The study emphasizes the need for a georeferenced, district-level database and integrated conservation strategies linking cultural heritage with sustainable development.

Keywords : - Sacred groves, Devrai, Maharashtra, spatial distribution, community conservation, sustainable development

1. INTRODUCTION

Sacred groves represent an important interface between biodiversity conservation, cultural traditions, and sustainable land management. These forest patches are protected through religious beliefs, taboos, and social norms, often without formal legal status. Across India, sacred groves have played a significant role in conserving native vegetation, medicinal plants, and wildlife, especially in landscapes affected by agriculture and urbanization.

Maharashtra offers a unique setting for studying sacred groves due to its wide ecological variation and cultural diversity. The state includes the humid Konkan coast, the biodiversity-rich Western Ghats, and the comparatively dry regions of Vidarbha and Marathwada. Previous studies have documented sacred groves in several districts, yet these studies remain regionally fragmented. A spatial synthesis is therefore necessary to understand regional contrasts, drivers of persistence, and implications for conservation and development planning.

2. MATERIALS AND METHODS (REVIEW METHODOLOGY)

2.1 Literature collection

This review is based on secondary data collected from peer-reviewed journals, conference proceedings, doctoral and postgraduate theses, government reports, and publications of non-governmental organizations. Literature was accessed through Google Scholar, institutional repositories, and biodiversity documentation portals.

Search terms included combinations of “sacred groves,” “Devrai,” “Deorai,” “Maharashtra,” and region-specific terms such as “Konkan,” “Western Ghats,” “Vidarbha,” and “Marathwada.”

2.2 Selection criteria

Studies were selected if they:

- Focused on sacred groves within Maharashtra,
- Provided district-wise or region-wise location details,
- Included ecological, cultural, or conservation-related information.

General articles lacking geographic specificity were excluded.

2.3 Data analysis and synthesis

Information extracted from each study included district/region, number or size of groves, vegetation type, cultural significance, and reported threats. Data were synthesized qualitatively and grouped into four major regions: Konkan, Western Ghats belt, Vidarbha, and Marathwada. Spatial patterns were interpreted in relation to climatic, physiographic, and socio-cultural factors.

3. SPATIAL DISTRIBUTION OF SACRED GROVES IN MAHARASHTRA

3.1 Konkan region

The Konkan region shows the highest concentration of sacred groves in Maharashtra. Groves are commonly associated with village deities and perennial water sources. High rainfall, lateritic soils, and strong cultural traditions have supported their persistence. Many groves retain evergreen or semi-evergreen vegetation and function as biodiversity refuges within human-dominated landscapes.

3.2 Western Ghats belt

Sacred groves in the Western Ghats occur across varied elevations and forest types. Despite increasing development pressures, these groves often preserve native species and microhabitats. Cultural protection remains significant, although weakening traditional norms and tourism-related activities pose emerging threats.

3.3 Vidarbha region

Vidarbha has fewer documented sacred groves compared to coastal and Ghats regions. Existing studies indicate that groves are scattered and generally small, often protected by tribal communities. Seasonal dryness, grazing pressure, and forest degradation influence their condition. Limited documentation suggests a need for focused regional studies.

3.4 Marathwada region

Marathwada exhibits the lowest reported occurrence of sacred groves. Available literature points to isolated patches with high vulnerability. Low rainfall, intensive agriculture, and declining traditional practices contribute to the degradation and loss of groves in this region.

4. DRIVERS INFLUENCING SPATIAL PATTERNS

4.1 Ecological drivers

Rainfall, availability of surface and groundwater, and topographic complexity strongly influence the presence and persistence of sacred groves. Regions with higher rainfall and diverse microhabitats support greater grove density.

4.2 Socio-cultural drivers

Local belief systems, deity worship, tribal traditions, and community governance play a central role in grove protection. Regions with strong cultural continuity show better conservation outcomes.

4.3 Developmental pressures

Agricultural expansion, infrastructure development, grazing, and temple construction have emerged as major threats. These pressures vary spatially and are more pronounced in interior regions.

Table 1. District-wise spatial and thematic synthesis of sacred grove studies in Maharashtra

District	Physiographic Region	Evidence Base	Dominant Vegetation Type	Cultural Governance System	Key Ecosystem Functions	Major Threats Identified
Ratnagiri	Konkan	Inventory, floristic surveys	Evergreen / semi-evergreen	Village deity-based customary protection	Water retention, biodiversity refuge	Development pressure, tourism, resource extraction
Raigad	Konkan	Ethnographic and ecological studies	Semi-evergreen	Community-managed sacred sites	Soil conservation, habitat connectivity	Urban expansion, road construction
Pune	Western Ghats	Ecological and landscape studies	Moist deciduous	Mixed temple-community governance	Species refugia, microclimate regulation	Infrastructure development, weakening taboos
Satara	Western Ghats	Floristic and taxonomic	Moist deciduous	Traditional village	Conservation of native	Grazing, forest

		surveys		protection norms	flora	degradation
Gadchiroli	Vidarbha	Ethnobotanical documentation	Dry deciduous	Tribal customary institutions	Medicinal plant conservation	Shifting land use, fuelwood extraction
Chandrapur	Vidarbha	Case studies and local surveys	Dry deciduous	Sacred shrine-based protection	Wildlife refuge, landscape heterogeneity	Mining, grazing pressure
Nanded	Marathwada	Local ecological reports	Dry deciduous / scrub	Ritual-based informal protection	Remnant forest conservation	Agricultural expansion, drought
Aurangabad	Marathwada	Limited and scattered studies	Thorn forest / scrub	Weak or declining traditional norms	Microhabitat preservation	Severe fragmentation, cultural erosion

5. RESEARCH GAPS AND DEVELOPMENT IMPLICATIONS

There is a clear need for systematic documentation of sacred groves in Vidarbha and Marathwada. Integration of sacred groves into biodiversity management plans, cultural heritage conservation, and sustainable rural development initiatives remains limited. Strengthening community participation and linking traditional knowledge with modern conservation frameworks can enhance long-term protection.

6. CONCLUSION

Sacred groves of Maharashtra display distinct spatial patterns shaped by ecological conditions and cultural governance. While Konkan and the Western Ghats retain relatively intact networks, interior regions face significant conservation challenges. A district-wise spatial approach provides valuable insights for interdisciplinary research and sustainable development planning, aligning cultural heritage conservation with biodiversity protection.

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