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Review Article

Effectiveness of Sacred Groves for Biodiversity Conservation

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Abstract

Sacred groves have survived without human intervention for a very long time, and are thus of anthropological, cultural, economic and ecological value. In highly degraded habitats and farmlands, the groves are the only intact trees. The paper addresses the effectiveness of traditional strategies as an instrument for the conservation of species and habitats and calls for a comprehensive assessment of indigenous conservation systems and the promotion of those systems that have the potential to increase efforts to conserve biodiversity in the world.

Introduction

Historically, the primary solution to conserving biodiversity globally has been by creating protected areas, but only 12% of the terrestrial areas of the world are under any form of protection [1]. There are few areas left which can be placed under such conservation, sometimes excluding people. There is a higher chance of success with environmental methods that are community-based [2]. Biocultural and indigenous conservation practises are gradually being recognised and valued; the ecological dimensions and cultural importance of the environment are regarded at these sites, like sacred groves in the World [3,4]. Sacred groves are forested ecosystems, which are covered by moral principles founded on social norms. Many sacred groves, for instance, have neighbourhood laws against hunting or taking another land from the groves. Globally, sacred landscapes occur and are a type of bio cultural security [5]. Asia and Africa have the world's largest number of sacred groves, and these trees have greater abundance and diversity of species than nearby non-sacred forests or adjacent ecosystems [6,7]. Because of industrialization and agricultural growth, the world has experienced deforestation by anthropogenic pressures [7]. The same stresses and behavioural developments endanger sacred groves. Some populations are prone to the exploitation of land, such as valuable timber plants, because their livelihoods rely on forest resources. The urbanisation and industrialization phase of large areas for construction and mining operations has a significant and detrimental effect on community environmental efforts [8]. A spike in human-wildlife violence due to the destruction of wild animal habitat often presents a challenge to sacred groves and the continuity of community attempts to preserve forests. Erosion of Taboos, deforestation and community laws have contributed to the degradation of the groves [9]. There is evidence around the world that traditions related to the sacred groves that were strictly practised have been eroded over the past few decades, and the groves no longer possess the same prestige and privilege as they did before (Kent, 2013) [10]. In terms of forests and especially sacred groves, much of the world is still not fully catalogued and mapped. Besides, the local ethnic groups and their cultural perceptions of these forests and holy groves remain undocumented. More research activities include the involvement of citizens, training to encourage indigenous local awareness and restoration of the biodiversity through the discovery, recording, and preservation of sacred groves in the world [11]. By conventional approaches of community-based restoration that do not require government intervention, protected natural sites, including sacred groves, are retained. Occasionally, within a protected area, such as a national park, there is a sacred grove. In this situation, the park manager should advise residents about the sacred site and follow the recommendations established by the International Union for the Conservation of Nature [12]. For several reasons, the protection of sacred groves is imperative: for the preservation of local and regional biodiversity; for the preservation of local communities' socio-cultural integrity; and for the myriad environmental services rendered by these groves, such as erosion control [13], maintenance of good water quality [14], as well as serving as seed banks [15] and carbon sinks [16]. As community-preserved areas, sacred groves are important and have contributed to the restoration of biodiversity, thereby playing a key role in maintaining the environment. The ecology and related cultural values of the groves and activities of local communities will enable appreciation of the importance of conserving sacred groves and even planning of integrated approaches to biodiversity at the ecosystem level conservation [17]. The wide distribution and abundance of sacred groves in the world's numerous habitats highlight the value of inventory and study continuity. In various areas of the world, there are still many undocumented sacred groves whose plant diversity needs to be registered to promote better conservation and restoration of wild gene pools [18]. To fully understand the role of these forests in the conservation of biodiversity, more research on ecology and the underlying socioeconomic processes of sacred groves scattered in remote corners of the world is needed [7]. For the indigenous people of the nation, sacred groves are an important part of life. Community organisations have played a pivotal part in preserving these forests over the decades [19]. It is important at this time to emphasise the protection of these forests and to help the ethnic communities that preserve them [20].

Conclusion

While sacred groves were originally developed to fulfil indigenous people's religious and spiritual needs, they play an important role in conserving in-situ biodiversity. The systems of faith, taboos and penalties on which sacred groves were founded, however, are crumbling. It is uncertain that these belief systems can be maintained, considering the rapidly evolving cultures. If they are to continue playing important roles in in-situ biodiversity conservation, the deterioration of conventional institutions for the management of sacred groves must be tackled. Since members of the state forestry staff does not have the required skills and expertise to maintain sacred groves, indigenous people must remain in the hands of future management. Factors such as tourism, income and job development will play an important role in the future protection of sacred groves and their potential for the conservation of biodiversity. The promotion of indigenous cultural heritage, as well as evolving influences, would thus eventually contribute to the preservation of sacred groves and the conservation of biodiversity.

References

1. MacKinnon K, Smith R, Dudley N, Figgis P, Hockings M, et al. (2020) Strengthening the global system of protected areas post-2020: A perspective from the IUCN World Commission on Protected Areas. Parks Stewardship Forum 36(2): 281-296.



2. Mc Namara KE, Clissold R, Westoby R, Piggott McKellar AE, Kumar R, et al. (2020) An assessment of community-based adaptation initiatives in the Pacific Islands. *Nature Climate Change* 10(7): 628-639.
3. Marini Govigli V, Healey JR, Wong JL, Stara K, Tsiakiris R, Halley JM (2020) When nature meets the divine: Effect of prohibition regimes on the structure and tree species composition of sacred forests in northern Greece. *Web Ecology* 20(2): 53-86.
4. Plieninger T, Quintas Soriano C, Torralba M, Mohammadi Samani K, Shakeri Z (2020) Social dynamics of values, taboos and perceived threats around sacred groves in Kurdistan, Iran. *People and Nature*.
5. Janaki M, Pandit R, Sharma RK (2020) The role of traditional belief systems in conserving biological diversity in the Eastern Himalaya eco-region of India. *Human Dimensions of Wildlife* 1-18.
6. Parthasarathy N, Naveen Babu K (2019) Sacred groves: Potential for biodiversity and bioresource management. In Leal Filho W. et al. (Eds.), *Life on Land*, Encyclopedia of the UN Sustainable Development Goals, Springer Nature, Switzerland. Pp. 1-16.
7. Rath S, Ormsby AA (2020) Conservation through Traditional Knowledge: a Review of Research on the Sacred Groves of Odisha, India. *Human Ecology* 48(4): 455-463.
8. Muza K (2019) Religion and ecology: Climate change between Christian and Shona religious beliefs and practices. Doctoral dissertation, University of Pretoria.
9. Green MC, Haron M (2020) Law, religion and the environment in Africa. *African Sun Media*.
10. Kent EF (2013) Sacred groves and local gods: Religion and environmentalism in South India. Oxford University Press.
11. Williams VR (2020) Indigenous peoples: An encyclopedia of culture, history, and threats to survival. ABC-CLIO.
12. Mgaya E (2020) Traditional institutions' management of sacred forests in Tanzania: History, narratives, and evidence from Njombe region, 1880s-2019. Ph. D thesis, Victoria University of Wellington.
13. Shrestha LJ, Devkota M, Sharma BK (2020) Tree Diversity Conservation Initiatives in sacred groves of Kathmandu Valley, Nepal. *Nepal Journal of Science and Technology* 19(1): 60-68.
14. Sen UK, Bhakat RK (2020) Floristic composition and biological spectrum of a sacred grove in West Midnapore district, West Bengal, India. *Acta Ecologica Sinica*.
15. Oyelowo O, Agboola D, Akinyemi O, Olatidoye O (2019) Soil seed bank diversity in selected sacred groves of tropical rain forest of southwestern, Nigeria. *Ethiopian Journal of Environmental Studies & Management* 12(5): 539-550.
16. Rehman HU, Poch RM, Scarciglia F, Francis ML (2020) A carbon-sink in a sacred forest: Biologically-driven calcite formation in highly weathered soils in Northern Togo (West Africa). *Catena*, 105027.
17. Dkhar M, Tiwari BK (2020) Traditional ecological knowledge of tribal communities of North East India. *Biodiversitas Journal of Biological Diversity* 21(7).
18. Acquaviva G (2019) Cultural values of trees in the East African context. *Kervan-International Journal of Afro-Asiatic Studies* 23 (1): 29-47.
19. Bunza MD, Shehu K, Bawa JH (2020) The potential roles of sacred natural site (s) and cultural values of biodiversity conservation in Zuru community of Kebbi State, Nigeria. *UNILAG Journal of Medicine, Science and Technology* 8(1): 218-236.
20. Kosoe EA, Adjei POW, Diawuo F (2019) From sacrilege to sustainability: the role of indigenous knowledge systems in biodiversity conservation in the Upper West Region of Ghana. *Geo Journal*.