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Conservation Value: Saving The Environment

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ABSTRACT

Background: The environment sustains human life through essential resources, yet biodiversity is rapidly declining due to anthropogenic activities. Sacred forests, embedded in cultural and religious traditions, have historically aided in conserving both biodiversity and cultural heritage.

Aims: This paper explores public understanding of environmental conservation, focusing on the role of sacred forests in sustaining biodiversity in India. The role of cultural values in shaping environmental attitudes, and the major anthropogenic threats to nature, in order to identify effective conservation strategies.

Objectives: This study aims to assess public awareness and understanding of environmental conservation and its significance; examine the influence of cultural beliefs and values on people's relationship with the environment; identify major anthropogenic threats; and explore practical, culturally sensitive solutions for effective conservation.

Material: The study employed structured interviews (n = 75) and telephonic interviews (n = 20) across diverse localities of Lucknow. Participants (15–65 years) included students, professionals, homemakers, and unemployed individuals. The study has utilised interview schedule and questionnaire to collect data and descriptively analysed, and qualitative responses thematically coded.

Result: Environmental awareness among respondents is growing, yet consistent action is hindered by infrastructural, educational, and cultural barriers. Traditional ecological knowledge systems, like sacred forests, remains largely unfamiliar. While many respondents acknowledge the environmental benefits only a small fraction recognise the significance of species extinction. Deforestation, habitat loss, festival-related pollution, and poor waste management persist as major concerns.

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Although respondents expect institutional support, they also acknowledge the importance of personal responsibility in conservation.

Conclusion: Effective conservation demands reviving traditional ecological practices, promoting sustainable consumption, and fostering collaboration among government, NGOs, and citizens. Bridging the awareness action gap requires stronger institutional support alongside active public participation to achieve ecological balance.

KEYWORDS

• Biodiversity • Sacred Forests • Cultural Heritage • Environmental Protection • Anthropogenic Activities • Climate Change • Sustainability • Community-based Conservation

INTRODUCTION

The environment is fundamental to human survival, providing air, water, soil, minerals, and wildlife. Yet, modern society has grown increasingly disconnected from nature, neglecting both its intrinsic value and its essential role in sustaining life. Beyond utilitarian benefits, nature embodies aesthetic and ethical significance, warranting protection for its own sake.

Biodiversity as introduced by E.O. Wilson (1988), encompasses the variety of life forms and their interactions within ecosystems. However, biodiversity is declining rapidly due to habitat destruction, climate change, invasive species, overexploitation, and pollution. The United Nations (IPBES, 2020) warns that over one million species face extinction. Vertebrate populations have declined by 68% since 1970, tropical American wildlife by 94%, and freshwater species by 84% (WWF, 2020). The IUCN Red List (2004) documented 784 extinctions in the past 500 years, while native species abundance has dropped by 20% since 1900. Although 1.5 million species have been identified, an estimated 86% remain undiscovered (May), highlighting the vulnerability of unknown biodiversity.

Conservation and preservation remain essential strategies: the former advocates sustainable resource use, while the latter seeks strict protection. As Gaylord Nelson noted, the main barrier to conservation is the lack of a cultural ethic. David Attenborough (2020), emphasizes that human intervention is critical, and organizations such as WWF and Greenpeace collaborate globally with local communities to balance ecological integrity and human well-being.

Nature's significance extends beyond ecology and economy. Ecosystem services are valued at $33 trillion annually (Costanza *et al*., 1997), while exposure to nature improves mental health (White, 2019). For Indigenous communities, biodiversity sustains cultural identity and spiritual traditions. As Johnson (1999) argues, conservation is an ethical obligation to future generations. Protecting biodiversity is, therefore, not merely an environmental necessity but a moral imperative to ensure the planet's resilience and heritage.

The Concept and Conservation Significance of Sacred Forests

Dr. M. S. Swaminathan described sacred groves as expressions of human gratitude toward trees sustaining life under specific agro-ecological conditions, contrasting them with botanical gardens cultivated for education and recreation. Sacred forests, or groves, are culturally and spiritually significant patches conserved through community-based traditions rooted in religious and ancestral reverence. India hosts the largest number globally over 100,000 primarily in the Western Ghats, Meghalaya, Kerala, and Karnataka, with origins dating back to early settled agriculture (Hughes & Chandran, 1998).

Ecologically, sacred forests provide vital ecosystem services, including soil and watershed conservation, while serving as biodiversity reservoirs rich in medicinal plants. However, modernization, logging, agriculture, and declining traditional practices threaten their sustainability (Bhagwat & Rutte, 2006).

Case studies highlight their ecological and cultural value. Kishu, Bhakat, and Guha (2009),

studying the Santhal community in West Midnapore, documented five socio-religious rituals regulating access and annual festivals that safeguarded 28 plant species, including sacred, edible, and timber-yielding varieties. Similarly, Negi (2010), studying sacred natural sites (SNS) in Uttarakhand, observed resource-use taboos, restricted grazing, and tree worship, which maintained ecological balance without formal legal protection. Negi argued that sacred groves play a crucial role in conserving biodiversity outside protected areas.

These informal institutions operate through spiritual beliefs, taboos, and social norms rather than state enforcement, offering a culturally integrated alternative to formal conservation strategies. They protect habitats often overlooked by modern efforts and reinforce the link between ethno-sociological values and environmental stewardship. Sacred forests exemplify how community-led, tradition-rooted conservation can complement scientific approaches to biodiversity preservation.

The Relevance of Conservation in the Anthropocene

Within anthropology's four-field approach, human-environment interactions have been central to understanding evolutionary and cultural development. Approximately two million years ago, climate-induced transitions from African forests to grasslands triggered the Hominin radiation, fostering bipedalism and tool use, while glacial cycles facilitated Homo sapiens' global dispersal (Potts, 1998; Hinkel & Klein, 2009).

In the present era, climate change poses an unprecedented threat. The **2015 'Paris Agreement'** committed nearly 200 nations to limiting global warming to below 2°C, ideally 1.5°C, to prevent catastrophic ecological consequences (UNFCCC, 2015). Consequently, governments and corporations increasingly monitor and disclose carbon emissions under emerging regulatory frameworks (IPCC, 2021).

Conservation is vital to maintaining ecological stability, as ecosystem collapse threatens biodiversity, food security, and human survival. Understanding how cultural values shape conservation attitudes is essential for promoting sustainable, community-based strategies. Ethnographic research has shown that conservation ethics are deeply embedded in cultural norms, taboos, and traditional ecological knowledge (Berkes, 2009). By integrating local cultural perspectives with scientific approaches, conservation initiatives can be more effective and socially inclusive.

Aims

This paper explores public understanding of environmental conservation, focusing on the role of sacred forests in sustaining biodiversity in India. The role of cultural values in shaping environmental attitudes, and the major anthropogenic threats to nature, in order to identify effective conservation strategies.

Objectives

1. To assess public awareness and understanding of the term 'environmental conservation' and its significance.
2. To understand how cultural beliefs and values influence people's relationship with environment and related benefits.
3. To identify the major environmental threats caused by anthropogenic activities.
4. To explore practical and culturally sensitive solutions for effective environmental conservation.

Area and People

Lucknow: Lucknow, the capital of Uttar Pradesh and historically known as Awadh, is famed for its rich cultural heritage, refined etiquette (tehzeeb), and Mughal-influenced traditions. The "City of Nawabs," is known for its cuisine, arts, and courteous people. Situated on the bank of Gomti River, Lucknow's official language is Hindi and Urdu, Lucknowi Urdu holds deep cultural prominence.

Historically, it was governed by the Delhi Sultanate and the Nawabs of Awadh before falling under British rule post-1857. Declared capital of the United Provinces in 1920, it now spans 310.1 km² with a 2020 population of approximately 3.67 million.

Awadhi cuisine, especially kebabs like Tunde and Kakori, defines the local food culture. Renowned for Chikan and Zardozi embroidery, its handicrafts are globally recognized. A modern hub for finance, aerospace, and IT, Lucknow is well-connected via air, rail, and road.

MATERIAL AND METHODS

The study employed structured interviews (n = 75) and telephonic interviews (n = 20) across diverse Lucknow localities, including Gomtinagar, Indira Nagar, Shakti Nagar, Hazratganj, Ashiana, and Malihabad. Participants (15–65 years) included students, professionals, homemakers, and unemployed individuals. The interview schedule focused on daily routines to reveal implicit understanding of the value people place towards environmental conservation, the questions focussed gathering insights into daily routines. Quantitative data were descriptively analyzed, and qualitative responses thematically coded (Okely, J., 2012).

RESULTS AND DISCUSSION

Environmental conservation represents a harmonious balance between humans and the natural world. It involves conscious efforts to protect, preserve, and sustain nature, recognizing the interdependence between human life and the environment. Most respondents agree that conservation includes reducing industrial pollution, promoting sustainable lifestyles, planting trees, cleaning water bodies and surroundings, and safeguarding animal welfare. Many respondents highlighted that the environment encompasses everything around us from what we eat and drink to what we wear and breathe making it central to life itself. Hence, protecting it is a shared human responsibility.

The responses revealed a balance between intrinsic and extrinsic values of nature. On the utilitarian side, the environment provides essential resources like oxygen, water, food, and medicine. Oxygen, described as the "essence of life," is vital for the survival of all living organisms. Water is equally indispensable, sustaining humans, animals, plants, and aquatic life. Additionally, the environment provides fruits, vegetables, meat, and herbal medicines that support our daily lives. The value of sunlight was also acknowledged it helps keep us warm and is a natural source of vitamin D. Soil fertility, too, was recognized as crucial for growing food.

Animals were seen not just as consumers or providers but as "teachers of life," symbolizing the importance of coexistence. On the emotional and psychological side, nature's beauty and tranquility were praised for their healing effects. The natural environment was credited with refreshing minds and promoting positivity, making it essential for both physical and mental well-being. The symbiotic relationship where plants give oxygen and humans provide carbon dioxide was emphasized, suggesting that disruption in one part of the ecosystem could trigger a complete collapse.

The need to preserve nature is rooted in the belief that it ensures human survival. Clean air, drinkable water, raw materials, and food security were frequently cited as reasons for conservation. Respondents warned that continuous deforestation and resource depletion would leave future generations with no means to survive. Without natural resources, human life would cease to exist. Some also raised concerns about the depletion of the ozone layer and its link to rising health issues like skin cancer and respiratory diseases. Global environmental threats such as climate change, melting glaciers, smog, and forest fires were seen as direct consequences of human neglect.

The importance of every species within the food chain was a recurring theme. The extinction of even one species could disturb the entire ecosystem. For example, disappearance of tigers could lead to overpopulation of prey animals, affecting forests. Even smaller creatures like cats play vital roles; their absence could lead to crop destruction due to rising rodent populations. Though a few argued that extinction (like that of dinosaurs) had limited impact, the overwhelming consensus was that all species must be protected. Imbalances in the food chain were even linked to rising health issues and viruses, underlining that environmental conservation is not just a necessity but humanity's only viable path forward.

The relationship between culture and the environment has existed for thousands of years. All civilizations began by worshipping the natural elements around them trees, rivers, animals, and the sun. Culture and environment have always been intertwined, but as societies modernized, this connection has evolved, often with damaging consequences. Many respondents believe that cultural practices in today's world have become more harmful than helpful to the environment.

Modern human lifestyles have resulted in excessive consumption and the indiscriminate misuse of land, much of which was once reserved for agriculture or forest cover. This widespread alteration of natural habitats has led to severe habitat destruction, compelling wildlife to encroach upon human settlements, often causing conflicts that are harmful to both animals and humans.

Firecrackers used in festivals, weddings, and political celebrations cause air pollution, harm wildlife, and trigger respiratory diseases like asthma and lung cancer. Many suggest banning them due to environmental damage and unethical production involving child labor. Alternatives include light shows, eco-friendly celebrations, and innovative seed-bursting firecrackers to aid afforestation.

Some respondents emphasized that Indian culture also has several positive environmental aspects. For example, certain trees like Tulsi, Peepal, Neem, Ashok and Banyan are worshipped and conserved. Many animals are revered due to their association with deities in Indian mythology. Festivals like Pongal, Makar Sankrati, Onam, Lohri, Gudi Padwa and Beehu etc. celebrate agricultural cycles and highlight the importance of protecting crops and trees. Cultural poems, folklore, and local dialects often teach younger generations about the value of nature and the need to protect it. In these ways, culture can instill environmental consciousness.

Nevertheless, there is a clear recognition that traditional efforts are no longer enough. There is a need for the development of new cultural practices that emphasize sustainability and environmental protection. Teaching children from an early age about conservation and responsible resource use is essential.

Some respondents expressed disappointment in society's current behavior, pointing out that although awareness exists, collective action is lacking. Measures promoted by governments and environmental organizations are often ignored. Many people fail to follow basic conservation practices such as planting trees, helping injured animals, or disposing of trash properly.

Despite this, others remain optimistic. A growing segment of society, particularly the youth, is becoming increasingly aware and active in promoting sustainability. Social media has been a powerful tool in spreading environmental awareness. Activists and concerned citizens have protested against deforestation and development projects that harm the environment. Clean-up drives for beaches and public parks, tree plantation initiatives, and the emergence of urban gardens reflect a new mindset among the younger generation. These actions demonstrate that awareness can lead to positive change when it becomes a collective movement.

One notable observation made by respondents was during the COVID-19 lockdown period. As human activity slowed, nature seemed to recover. The skies cleared, air quality improved, and wildlife was more visible. This brief period offered a glimpse into what a cleaner, healthier environment could look like. It served as a reminder that human actions are central to environmental health, and it is our responsibility to protect and preserve our natural world for future generations.

The use of firecrackers remains a contentious issue. Most respondents favored banning firecrackers due to their environmental, health, and safety risks, including burns, property damage, and toxic air pollution. Some argued that industrial pollution is a bigger issue and suggested adopting catalytic converters and eco-friendly technologies to reduce emissions.

Education and early awareness are key strategies for achieving long-term change. Teaching children about the dangers of pollution and the importance of conservation from a young age can foster environmentally responsible citizens. Early education on pollution and conservation can shape environmentally responsible citizens. Teaching children sustainable practices ensures they are less likely to adopt harmful traditions later in life.

The rapid depletion of forests, with only 2.7% remaining in Uttar Pradesh, threatens air quality and biodiversity. Continued loss could lead to oxygen scarcity and rising pollution-related diseases such as respiratory disorders, cancer, and neurological issues.

Pollution damages not only living organisms but also infrastructure, eroding historical monuments through acid rain and poor air quality. Stronger laws, community action, and global cooperation are needed to combat climate change and environmental degradation.

The increasing frequency of floods, tsunamis, and rising sea levels signals the planet's response to environmental abuse. Yet, hope remains, as youth-driven initiatives, electric vehicles, plastic bans, and global environmental movements indicate a positive shift toward change.

Ultimately, it is up to each individual to take responsibility. Whether it's feeding a stray animal, planting a tree, or advocating for cleaner air, every small action counts. A united effort by society, supported by government policy and inspired by evolving cultural values, can steer humanity towards a more sustainable future.

Individual Environmental Practices

A significant proportion (82.9%) reported planting trees at least once, with 45% doing so annually, suggesting strong reforestation awareness. Energy conservation was widely practiced (92.1%), yet only 17.1% consistently used eco-friendly transport. Animal welfare was noted, with 30% regularly feeding stray animals, reflecting empathetic environmental ethics. These small but significant individual actions align with findings that grassroots behavioral change is crucial for sustainability (Ripple *et al*., 2014).

Cultural Conservation Practices

Traditional practices such as worship of Tulsi and Peepal trees, and festivals like Bihu, Chhath Puja, and Tulsi Vivah, were praised for fostering reverence for nature. Sacred forests were highlighted as biodiversity reservoirs (Gadgil & Guha, 1993); however, only 15% of respondents were familiar with this concept, indicating generational disconnection. Respondents advocated for educational trips and awareness programs to preserve such practices. Conversely, pollution from religious rituals (e.g., idol immersion in rivers) was widely criticized, echoing Kothari's (2013) concerns about the environmental cost of religious traditions.

Population, Consumerism, and Waste Management

Overpopulation, deforestation, and industrialization were perceived as primary ecological threats. Respondents emphasized adopting sustainable consumption and renewable energy to reduce environmental degradation. Waste management remained inconsistent while 55% had access to disposal systems, 45% lacked adequate infrastructure, reflecting systemic urban planning challenges.

Biodiversity Conservation

While 55% supported equal protection for all species, 45% prioritized endangered species, aligning with targeted conservation strategies (Ripple *et al*., 2014). However, several respondents warned that selective conservation risks destabilizing ecosystems.

Institutional and Community Roles

NGOs were perceived as more proactive than government agencies in raising awareness and supporting animal welfare. Although 63.2% expressed willingness to participate in rallies for spreading awareness, respondents emphasized that government policies must be complemented by active citizen participation.

Education and Youth Engagement

Environmental education was strongly endorsed. Respondents advocated for practical, activity-based Environmental Studies (EVS) from primary to secondary education, including gardening, sapling planting, and visits to wildlife sanctuaries. Early environmental sensitization was viewed as essential for long-term behavioral change (Wilson, 1988).

Environmental Responsibility: Individual Actions and Cultural Conservation

The concept of **sacred forests** stood out as an ancient yet overlooked form of community-based conservation. These forests, deeply rooted in cultural and spiritual traditions, act as safe havens for endangered flora and fauna, particularly in India, which has the highest number of sacred forests in the world. However, only 15% of respondents were familiar with this concept, showing a disconnection between modern generations and traditional conservation practices. Those who were aware strongly advocated for their protection. "It's fascinating how these sacred groves are preserved in the name of culture, shielding them from industrial destruction," said one respondent. Others emphasized the potential of these forests in preserving medicinal plants critical for future healthcare. Suggestions included organizing educational trips to sacred forests to raise awareness among students and push for local and international

support for their conservation. As one respondent aptly put it, "Without forests, we are nothing."

On the contrary, concerns were raised about the pollution caused by some religious practices. For instance, immersing oil lamps and idols into water bodies during festivals such as Ganesh Chaturthi and Durga Puja was cited as a major cause of water pollution. "The Ganga is sacred, yet it's becoming toxic due to such practices," said one respondent. Another added that immersion of flowers and diyas harms marine life during Chhath Puja. However, participants believed that the intent behind these festivals should be preserved, but the methods must evolve to become environmentally conscious.

Apart from religious celebrations, environmental festivals such as *Van Mahotsav*, *Turtle Festival* in Maharashtra, *Bird Festival* in Uttar Pradesh, *Rann Utsav* in Gujarat, and *Pongal* in South India highlight regional conservation efforts. Global observances like *Earth Day* and *World Environment Day* were also mentioned as significant events that unify people in appreciation of nature.

However, others warned against a skewed focus. "Each species has a role in the food chain. Ignoring some in favor of others may disturb the balance,"

Ultimately, the protection of our planet begins with each individual. From planting trees to conserving forests and wildlife, celebrating nature respectfully, and adopting sustainable habits, every small action contributes to a larger change. As echoed by many respondents, "Each and every living being has as much right to this Earth as we do."

The survey explored various aspects of environmental attitudes and behaviors. A majority (76.3%) reported feeling refreshed and positive when spending time in green areas, while 9.2% felt neutral, 1.3% experienced a spiritual connection, and 2.6% noted cognitive benefits. However, 10.5% lacked access to such spaces, reflecting urban planning gaps.

Water conservation behaviors revealed that 40.8% of respondents took showers of 0–15 minutes, 42.1% took 15–30 minutes, 9.2% took 30–45 minutes, and 7.9% exceeded 45 minutes, indicating a need for greater awareness to curb water wastage. Regarding littering, 69.7% felt guilty about improper disposal, 23.7% felt guilty occasionally, and 6.6% felt no remorse, suggesting the necessity of continuous education.

Energy conservation habits were encouraging, with 92.1% actively turning off unused appliances, although 6.6% were inattentive and 1.3% did not conserve energy. Attitudes toward stray animals showed 23.7% always supported them, 71.1% occasionally did, and 5.3% never did. Tree planting was widely practiced, with 82.9% having planted at least one tree.

Sustainable transportation use was limited, with only 17.1% consistently choosing eco-friendly options, 34.2% frequently, 38.2% occasionally, and 10.5% never. Regarding ecological concerns, 59.2% acknowledged overpopulation as a driver of biodiversity loss, whereas 32.9% were neutral and 7.9% disagreed.

In terms of single-use plastic, 64.5% regularly carried reusable bags, 26.3% did so sometimes, and 9.2% never. Finally, 63.2% expressed willingness to join environmental rallies if organized by institutions, indicating strong potential for grassroots mobilization.

Key Recommendations Based on Survey Responses

- Environmental protection is a shared responsibility it requires collaboration between institutions and individuals and strict policy enforcement, and promotion of sustainable consumption.
- Shift to renewable energy, especially solar; ban rural waste burning; impose stricter industrial pollution controls with catalytic converters; and improve stagnant water and waste treatment systems.
- Make electric vehicles affordable with better infrastructure; encourage walking, cycling, and carpooling; and promote urban agriculture, especially kitchen gardens using organic fertilizers.
- Encourage short showers, avoiding firecrackers, feeding stray animals, planting trees, and conserving resources. Promote minimalist living, reusable bags, and sustainable fashion through reuse and reduced production.
- Implement urban reforestation, rainwater harvesting, and community sanitation drives.

- Adopt Reuse, Reduce, Recycle (3Rs) support local and organic products; and treat food waste prevention as an ethical and environmental duty.
- Ensure transparent use of public funds, improve waste management and beautification, and lead by example to inspire public participation.
- Collective, sustained action through education, lifestyle changes, and activism is crucial. Immediate steps are essential: *"Plant a sapling and nurture it for life."*

FINDINGS AND CONCLUSION

The findings reveal increasing environmental awareness but limited consistent action due to infrastructural, educational, and cultural gaps. Reviving traditional ecological practices, encouraging sustainable consumption, and fostering collaboration among government, NGOs, and citizens are essential for effective conservation.

While most respondents valued the environment's health and climate benefits, fewer acknowledged its intrinsic worth, and some underestimated the impact of species extinction. Sociocultural practices had mixed effects, with 25% considering certain festivals harmful, while social media influenced youth awareness. However, deforestation and habitat loss persist, and traditional ecological knowledge, such as sacred forests, remains largely unknown.

Consumption-driven degradation and poor waste management continue, with 45% reporting inadequate disposal systems. Though respondents expect institutional action, they recognize personal responsibility. Bridging the awareness–action gap demands stronger institutional support and active citizen participation to achieve ecological balance.

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