

REIMAGINING ENVIRONMENTAL STEWARDSHIP IN THE ANTHROPOCENE: INTEGRATING UNIVERSAL HUMAN VALUES AND SACRED ECOLOGY

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Doi: <https://doi.org/10.54513/IJREP.2026.12202>

Abstract



Article Info:

Article Received: 25-04-2026
Accepted on: 15-05-2026
Published online: 06-06-2026

Recent environmental trends have deepened understanding of the Anthropocene, which has intensified environmental crises while revealing the limits of approaches that are merely scientific and technological, centered solely on monetary and economic gain. The present paper is therefore an effort to understand the gap between ecological crises and sustainable development. By closely examining environmental ethics and sacred ecology, the present study proposes an integrated framework for value-based resource management to address contemporary environmental challenges. Natural disasters across the globe, such as the uncontrollable Amazon fire, the Dharali flood, multiple cloudbursts in the Himalayan region of India, the untimely melting of the ice shivlingam in the holy Amarnath Cave, and other environmentally vulnerable landscapes, illustrate the need for ethical education for the masses. The paper also argues that sustainable development, ethical management, and genuine use of resources require not only scientific understanding but also effective governance, cultural perspectives, and ethical responsibility for resources.

Keywords: Anthropocene, Environmental Ethics, Universal Human Values, Sacred Ecology, Ethical Stewardship, Environmental Governance, Ecological Sustainability, Human–Nature Relationship, Sustainable Development, Ecological Conservation

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Introduction

The twenty-first century is increasingly characterized by escalating environmental crises that have fundamentally altered the core of human relationships with the environment and nature. These changes are evident in abrupt climate change, severe biodiversity loss, alarming ecosystem degradation, rapid depletion of natural resources, and extreme weather conditions. All these things together have challenged conventional models of development and sustainability. According to the Intergovernmental Panel on Climate Change (IPCC, 2023), these interconnected environmental pressures pose threats not only to ecological stability but also to the sociological and economic well-being of present and future societies. As a consequence, the concept of the Anthropocene has emerged as a significant interdisciplinary framework for understanding the unprecedented extent of human influence on Earth's ecological processes. In this regard, Christophe Bonneuil (2015) argues that the concept of the Anthropocene is not limited to a geological approach; it also encompasses political, cultural, and ethical conditions arising from the present system of production, consumerism, and excessive environmental exploitation. Now, this outlook on the concept of the Anthropocene not only broadens the environmental discourse beyond scientific explanations but also invites critical reflection on the values and behaviors that have caused contemporary ecological degradation.

The concept of the Anthropocene has therefore motivated contemporary researchers to move beyond technological and policy-driven responses towards more integrated approaches to sustainability, as the increasing acknowledgment of ethical dimensions makes this necessary. According to Sarah Holdsworth (2012), an Australian academic researcher on education for sustainability, environmental behavior, youth engagement, and higher education, the initiatives taken for environmental sustainability are unlikely to make a long-lasting impact unless they are supported by behavioral change and ethical learning that influence day-to-day environmental decision-making at the very core of society. Another scholar, Gienger et al. (2024), also emphasizes that the need of the hour is to respond effectively to environmental crises; however, this requires interdisciplinary engagement to reconnect people with nature not only through environmental education but also through ethical reflection and meaningful human-environment relationships. These perspectives collectively suggest that environmental degradation in one place is a scientific and regulatory challenge and, at the same time, indicate the consequences of a weakened ethical relationship between human societies and nature.

However, the present paper argues that an ethical foundation for strengthening stewardship in the Anthropocene can be effectively established by popularizing universal human values worldwide. Moving on to the concepts of sacred ecology, environmental ethics, and sustainability-related studies, the present research paper proposes an integrated framework in which scientific knowledge, environmental governance, and value-based governance function as complementary rather than competing approaches to conservation. The present paper also takes the example of a culturally and religiously significant yet

ecologically vulnerable Himalayan landscape, the Amarnath Cave. The holy cave is a live example of the complex interactions among climate change, religious tourism, environmental management, and moral responsibility. Putting together all these perspectives, the paper engages with contemporary debates on sustainability. The present paper also emphasizes that enduring ecological resilience does not depend only on scientific understanding but also on the ethical values that define human engagement with nature.

Anthropocene and Environmental Ethics

Moving on, it is evident that the concept of the Anthropocene has fundamentally changed contemporary environmental thought. The Anthropocene clearly demonstrates that the ecological crises we face are not merely the consequences of natural calamities but largely the aftermath of insane, self-centred human actions and unsustainable development patterns. Supporting this notion, Christopher Bonneuil, a French science and environment historian and senior researcher, also argues that the concept of the Anthropocene should not be understood merely as a new geological epoch but as a historical and political condition that defines development solely in terms of industrialization and consumerism. Technological expansion and unsustainable economic developments. This self-catered perspective challenges the traditional separation between human beings and nature by recognizing unsustainable human activities. The Anthropocene also signifies that this self-catered approach of humans towards nature is severely influencing Earth's climate, biodiversity, and ecological resilience. Therefore, it is imperative to note that environmental degradation should not be judged solely through the lenses of science and technology but must also include an ethical understanding of the issues. IPCC (2023) similarly emphasizes that addressing these climate changes, which increasingly result in natural disasters, requires societal transformations involving governance, institutional reform, and sensible human behavior. Building on this notion, Gienger et al. (2024) further argue that the concept of the Anthropocene requires interdisciplinary responses that help reconnect people with nature. However, it is not possible through environmental education alone; at the same time, it requires awareness of humans' ethical responsibility to nature and environmental concerns. Their work strongly advocates that a sustainable future depends on a range of factors, including both technological solutions and ecological consciousness. When put together, the above-mentioned scholars also recommend that the Anthropocene has transformed environmental discourse from a largely technical unease into a broader ethical and societal challenge. This is how the need for value-based approaches is created to strengthen the long-term environmental trusteeship.

Universal Human Values and Sacred Ecology

The understanding of the Anthropocene as an ethical challenge clearly underscores the need for a value-based framework that sheds sufficient light on coexistence with nature, where nature is not something beyond but a part and parcel of human existence. Therefore, it becomes quite evident that the solution can be sought through the lens of universal human

values. Understanding UHV helps one see that humans are not the owners of nature and Earth; rather, their existence depends entirely on nature and its phenomena. The concept of universal human values helps one understand environmental trusteeship and encourages responsible behavior, respect, reciprocity, restraint, justice, and so on for Earth and its five elements. Adding to this notion, Holdsworth (2012) also notes that without ethical responsibility and behavioral change among common folk and societies towards nature, sustainable development is impossible. Likewise, another researcher, Gienger et al. (2024), also suggests that efforts to rewire the common public's relationship with surrounding nature, through ethical reflection and environmental education, are the need of the hour for nurturing long-term ecological concern in the Anthropocene. Therefore, values that have been proven universal should not be taken for granted as moral ideas; instead, they must become the cornerstone of any project or action undertaken in the name of sustainable development.

Sacred ecology also provides a rational basis and a platform to articulate the need for these principles in sustainable development and ethical practice. Building on the same concept of sacred ecology, Fikret Berkes (2018) also defines it as the dynamic relationship among traditional ecological knowledge, ethnic beliefs, transcendent practices, and ecological management. Here, it is important to understand that the concept of sacred ecology is not limited to something transcendental; in fact, it encompasses all ecological phenomena, such as forests, rivers, seas, mountains, caverns, and other natural backdrops. At the same time, the phenomena of sacred ecology work not simply as material resources but as living socio-ecological systems possessing ecological, cultural, and spiritual significance. Since time immemorial, and across indigenous societies worldwide, such landscapes have been conserved through ethical norms of reverence, reciprocity, restraint, and collective responsibility rather than through external regulations alone. Countries and cultures across the globe connect these ecological phenomena to spirituality to preserve them. Ancient cultures like India and Greece are living examples where nature is worshipped, and almost all natural elements are revered as gods. Supporting this perspective, Folke et al. (2021) suggest that irrepressible socio-ecological systems surfaced through the interaction of ecological knowledge, adaptive ascendancy, and public participation. Building on this concept, Milcu et al. (2024) also argue that culturally embedded conservation practices strengthen both ecological resilience and societal efforts. Therefore, considering the views of different researchers, it is evident that sacred ecology is the need of the hour, strengthening both ecological resilience and human participation. It also suggests that understanding the concept of sacred ecology is a practical manifestation of universal human values since it logically illustrates how ethical commitments can complement scientific knowledge and environmental governance to promote sustainable conservation in the Anthropocene.

Ethical Stewardship as an Integrated Framework

As discussed in the previous passages, it is evident that environmental conservation in the Anthropocene requires an approach that goes beyond the division among technical awareness, ecological governance, and ethical accountability. As far as scientific research is

concerned, it provides necessary evidence about climate change, biodiversity loss across the globe, mainly in developing nations, ecosystem degradation, and ecological risks. In contrast, power machinery converts this knowledge into strategies, guidelines, and conservation policies. Having said that, it is also necessary to note that scientific knowledge of nature and regulatory structures does not function independently to ensure responsible environmental behavior. Supporting the idea, another critic, Bonneuil (2015), strongly puts forward that the Anthropocene is joined at the bottom by the social, political, and profitable systems through which human societies have transformed the natural environment, suggesting that ecological problems must also be looked at through the lenses of human values and collective societal practices. Understanding the role of the Anthropocene, IPCC (2023) emphasizes the relevance of institutional transformation towards collective action and of addressing human behavioral responses in general, in line with interventions from science and technology. In the same context, managing ethics to align with sustainable development also paves the way for essential connections between environmental knowledge and human action.

After all the discussion on the Anthropocene, institutional transformation, policy formation, and contribution of the common public, understanding the role of universal human values, such as responsibility, reciprocity, restraint, justice, and stewardship, functions as a practical solution for environmental strategies. Understanding every value one by one provides clarity towards its importance and role in a balanced environment. Here, it is important to understand that a sense of responsibility encourages individuals, organizations, and positions to acknowledge the contributions that take the form of steps towards sustainable development. The concept of respect helps one to recognize the ecological significance of nature beyond its immediate monetary value. Likewise, understanding the concept of restraint helps societies to promote genuine consumption of natural and other necessary resources. To continue with universal human values, at one point, where the concept of reciprocity emphasizes the interdependence between human well-being and ecological health, the value of justice introduces a cross-generational and distributive dimension to environmental decision-making. All these values, when put together, play a significant role in making environmental policies and involve competing cultural, economic, religious, and ecological interests.

The studies so far have confirmed that ethical stewardship, therefore, should not be treated as a substitute for technology and policymaking. On the contrary, it facilitates a value-based orientation, which further helps scientific evidence inform responsible policymaking and governance, encouraging comprehensive responsibility. Supporting this view, Gienger et al. (2024) also shed light on the importance of helping people reconnect responsibly and respectfully with nature, thereby supporting the formation of just and effective behavior at the individual level and policymaking at the state level. It is also important to understand that an integrated model ultimately acknowledges science as a source of ecological knowledge and supports responsible policymaking. It also helps one to understand that ethical stewardship can work as a principal mechanism for collective regulation. Therefore, it is not an

exaggeration to state that this framework is especially meaningful in sacred ecological landscapes, where environmental safeguarding must simultaneously accommodate ecological vulnerability, cultural significance, and the responsible and just behavior of humans.

Contemporary Ecological Crises: Implications for Ethical Stewardship

Recent environmental incidents across diverse geographical contexts reflect the urgency of integrating scientific knowledge with ethical and responsible management of resources as a trustee, not as an owner. In this regard, the 2025 Los Angeles wildfires demonstrated the destructive nature of extreme fire, which was not limited to forests and burnt several plant and other biological species, but also burnt houses in residential areas, despite critical government efforts to control them. While discussing this incident, it is important to note that NASA research has also identified a broader intensification of wildfire risk under warming conditions (NASA, 2024, 2025). Similarly, in Uttarakhand, India, the August 2025 Dharali flash flood, repeated cloudbursts in the Chamoli district of Uttarakhand, India, and the 2025 cloudburst in Dehradun, India, which claimed several lives and a lot of infrastructure loss, have exposed the vulnerability of the ecological challenges in the fragile Himalayan terrain, which impacts the climate and ecological balance of several countries (Sinha, 2025). Likewise, the early melting of the naturally formed ice shivlingam in the past few years has also raised concerns about climatic and anthropogenic pressures on a fragile sacred ecosystem (Down to Earth, 2025). Studying these cases closely reinforces the need for value-based, technically informed, scientifically driven policymaking and its massive implementation.

Conclusion

After all the discussion, it has become evident that the Anthropocene demonstrates that maintaining ecological balance demands integrating just, responsible behavior towards nature with scientific knowledge and technological innovation, along with sustainable policymaking. The present study also argues that universal human values such as respect, responsibility, reciprocity, and stewardship can play an important role in providing a necessary foundation for translating environmental knowledge into responsible action. These values, when combined with justified, responsible policymaking, offer a holistic approach to safeguarding the ecosystem and helping human beings understand coexistence with nature. The environmental challenges illustrated by recent natural disasters across diverse geographical contexts have reaffirmed the need to align human behavior with a sustainable understanding of natural resources. Ultimately, working towards sustainable development requires understanding that it can result not only from scientific development but also from cultivating an ethical commitment to respond responsibly.

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