Faculty of Natural and Applied Sciences Journal of Basic and Environmental Research
Print ISSN: 3026-8184 e-ISSN 3043-6338
www.fnasjournals.com
Volume 2; Issue 3; May 2025; Page No. 10-16.
DOI: https://doi.org/10.63561/jber.v2i3.820

Deep Ecology and Biodiversity Conservation: The Ethics of Protecting the Web of Life

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Abstract
Despite increasing environmental advocacy, contemporary conservation ethics remains largely anthropocentric, lacking a robust philosophical foundation for valuing biodiversity intrinsically. This paper addresses that gap by critically appraising Arne Naess's Deep Ecology, which challenges human-centered environmentalism and advocates an ecocentric framework that affirms the inherent worth of all life forms. The central ethical problem explored is the tension between anthropocentric environmental management and the need for a holistic ethic that respects all beings. Guided by the research question—How can Deep Ecology provide a more ethically consistent foundation for biodiversity conservation than shallow, utilitarian approaches?—this study employs philosophical and conceptual analysis. It systematically engages with Naess's ecosophy and relevant environmental ethics literature to examine key concepts such as biospheric egalitarianism, relational ontology, and the ecological self. Findings demonstrate that Deep Ecology offers a coherent ethical paradigm grounded in the intrinsic value and interdependence of all life forms. It rejects atomic individualism and redefines human identity as part of the ecological whole, promoting self-realization through identification with nature. The paper also engages with critiques of Deep Ecology, including concerns about impracticality and relativism, while defending its relevance as a transformative ethical vision. The study concludes that adopting an ecocentric ethic rooted in Deep Ecology is essential for sustaining biodiversity and preserving the integrity of the biosphere.

Keywords: Deep Ecology, Biodiversity Conservation, Environmental Ethics, Eccentrics, Web of Life

Introduction

The rapid degradation of ecosystems and the accelerating loss of biodiversity have spurred critical philosophical inquiries into humanity's relationship with the natural world. Emerging in the early 1970s, Arne Naess's Deep Ecology challenges the traditional anthropocentric view that nature exists primarily to serve human needs. Instead, it offers an ecocentric framework, emphasizing the intrinsic value of all living beings and advocating for a radical rethinking of human identity and ethics in relation to nature (Naess, 1973). Deep Ecology has since become a cornerstone in the field of environmental ethics, providing a profound philosophical foundation for biodiversity conservation at a time when climate change, habitat destruction, and species extinction threaten the web of life. Despite the evolution of environmental thought, much of conservation practice remains rooted in shallow ecology, which focuses primarily on pollution control and resource management for human benefit.

This article argues that Deep Ecology, through its principles of biospheric egalitarianism, relational selfhood, and intrinsic valuation of all life forms, offers a more compelling, ethically coherent, and sustainable foundation for biodiversity conservation than anthropocentric or utilitarian models.

Early environmental philosophies, such as Aldo Leopold's Land Ethic (Leopold, 1949) and Lynn White Jr.'s critique of Judeo-Christian environmental attitudes (White, 1967), laid important groundwork by questioning humanity's dominion over nature. Leopold's call for humans to see themselves as "plain members" of the biotic community advanced the ethical conversation toward an interconnected view of life. White, however, exposed how religious and cultural narratives fueled environmental exploitation, while proposing Saint Francis of Assisi's model of humility before nature as an alternative.

Despite these contributions, many environmental frameworks, particularly shallow ecology, remained utilitarian, focusing on environmental protection primarily for human benefit. Naess's Deep Ecology filled this philosophical gap by advancing a non-anthropocentric ethics rooted in the recognition of the intrinsic worth of all beings, regardless of their instrumental value to humans (Naess, 1973; Devall & Sessions, 1985). Recent critics like Murray Bookchin (1987) argue that Deep Ecology neglects social structures contributing to ecological crises, yet Deep Ecology's emphasis on ontological interconnectedness continues to offer a uniquely holistic approach. Thus, this article builds upon Deep Ecology's foundational insights while engaging with ongoing debates about its practical applicability and ethical consistency, arguing for its critical importance in biodiversity conservation today.

Literature Review

Scholarly engagement with environmental ethics has steadily expanded since the mid-20th century. Aldo Leopold's (1949) "Land Ethic" marked a foundational moment by introducing the idea that humans are members rather than masters of the biotic community. White (1967) followed with a historical critique of Judeo-Christian attitudes, implicating religious worldviews in ecological degradation, though proposing Saint Francis of Assisi's humility before nature as a counter-model. Naess (1973, 1989) launched Deep Ecology to move beyond anthropocentric environmentalism, advocating a holistic, non-hierarchical valuation of nature. Devall and Sessions (1985) further formalized these principles into a practical philosophy or ecosophy, foregrounding concepts like biospheric egalitarianism and self-realization.

However, critics such as Bookchin (1987) argue that Deep Ecology neglects social hierarchies and political structures that drive ecological destruction. Feinberg (1974) also questions the feasibility of ascribing moral rights to non-sentient beings. Fox (1990) introduces a transpersonal dimension, where identity is expanded to include nature, refining Deep Ecology's ethical thrust. Current scholarship identifies a gap in practical implementation strategies, particularly within developing countries. African scholars have noted that ecocentric models resonate with indigenous African cosmologies, yet contemporary environmental policies remain largely anthropocentric (Ogungbemi, 1997; Akintola et al., 2020).

The central problem this article addresses is the continued dominance of anthropocentric ethics in conservation **efforts**, which undermines a deeper, more sustainable relationship with the natural environment. Therefore, the guiding research question is: How can Arne Naess's Deep Ecology offer a more ethically consistent and philosophically robust foundation for biodiversity conservation than shallow, utilitarian approaches?

Aim and Objectives of the Study

The primary objective of this article is to critically appraise Arne Naess's Deep Ecology and demonstrate its relevance to contemporary biodiversity conservation. Specifically, it seeks to:

- Examine the ethical and philosophical principles of Deep Ecology;
- Assess its implications for environmental policy and conservation practice;
- Compare it with traditional anthropocentric approaches;
- Advocate for a shift towards ecocentric conservation ethics.

Materials and Methods

This study adopts a philosophical and conceptual analysis as its primary methodological approach. Philosophical inquiry is particularly suited for investigating fundamental ethical questions concerning human-nature relationships because it enables a critical examination of the underlying assumptions, arguments, and values that shape environmental thought (Rescher, 2001). Specifically, the article employs **a** theoretical framework grounded in environmental ethics, drawing extensively on Arne Naess's Deep Ecology philosophy. Deep Ecology provides not merely a set of environmentalist recommendations but a comprehensive worldview, or *ecosophy* that integrates

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metaphysical, ethical, and ecological dimensions (Naess, 1989). The analysis involves explicating Naess's core concepts—such as biospheric egalitarianism, the relational self, and the intrinsic value of all living beings—and critically assessing their relevance and application to contemporary biodiversity conservation debates. Additionally, the article engages in a comparative analysis between Deep Ecology and shallow ecology (as defined by Naess, 1973), highlighting the limitations of anthropocentric conservation models and the ethical imperative for an ecocentric shift. Critical perspectives from scholars like Murray Bookchin (1987) and Warwick Fox (1990) are also examined to contextualize the debates around Deep Ecology's theoretical strengths and limitations. The analysis draws on key primary texts and secondary literature on Deep Ecology, including works by Naess (1973, 1987, 1989), Devall & Sessions (1985), Fox (1990), and Bookchin (1987). Selection criteria focused on seminal texts that have defined, developed, or critically engaged with Deep Ecology and environmental ethics. Peer-reviewed literature and historical critiques were prioritized to ensure analytical depth. This conceptual methodology allows the article to not only articulate the philosophical underpinnings of Deep Ecology but also to address contemporary critiques and synthesize a more coherent and practically applicable environmental ethic. Through this approach, the study aims to contribute to the broader discourse on environmental ethics and biodiversity conservation by offering a critical, well-grounded philosophical analysis.

Historical Context and Foundations of Deep Ecology

Deep Ecology emerged in the early 1970s as a radical critique of anthropocentric environmentalism. The movement was initiated by Norwegian philosopher Arne Næss, who in 1973 coined the term "deep ecology" to distinguish it from "shallow" ecological approaches (Næss, 1973). While shallow ecology sought to mitigate environmental degradation mainly to preserve human welfare, deep ecology challenged the very foundations of human-centeredness, advocating instead for an ecocentric worldview where all living beings possess intrinsic value. Næss proposed that the environmental crisis stems from a fundamental flaw in modern philosophical thinking—the prioritization of human needs over the well-being of the planet. His eight-tier platform outlines principles aimed at fostering a fundamental shift from a human-dominant paradigm to one of biospheric egalitarianism, emphasizing the interconnectedness of all forms of life (Næss, 1989).

Core concepts and theoretical foundations

Biospheric Egalitarianism

At the heart of deep ecology is the concept of biospheric egalitarianism—the idea that all living beings have an equal right to live and flourish, regardless of their perceived utility to human beings (Devall & Sessions, 1985). This radical departure from traditional anthropocentrism redefines human relationships with nature, calling for the recognition of the inherent worth of all entities in the biosphere.

Self-Realization and Identification

Deep ecology posits that self-realization is achieved not through domination over nature but through identification with it. Warwick Fox (1990) expanded on this idea with his notion of a "transpersonal ecology," where personal identity extends to embrace the natural world. According to Fox, the process of "re-earthing" allows individuals to experience a profound sense of unity with nature, ultimately fostering ecological consciousness.

Ecosophy and Total-Field Image

Næss (1973) introduced the concept of *ecosophy*—a philosophy of ecological harmony—as the intellectual framework for deep ecology. This ecosophy advocates for the "total-field" image, where individuals are seen not as isolated units but as interrelated "knots" within the web of life. Each organism's identity is constituted by its relations with others, emphasizing the relational, interconnected nature of existence.

Deep Ecology and Biodiversity Conservation

Deep ecology's ethical imperative extends directly to biodiversity conservation. By advocating the intrinsic value of all species, deep ecology offers a philosophical grounding for conservation practices that respect the autonomy and dignity of nonhuman life. Following Aldo Leopold's "Land Ethic" (1949), deep ecologists argue that human activity must align with the maintenance of the integrity, stability, and beauty of the biotic community. Scientific developments in ecology have reinforced deep ecology's principles. Studies on dynamic equilibrium, homeostasis, and ecosystem resilience reveal the fragile interdependence among species and ecosystems (Botkin, 1990). As such, deep ecologists

argue that the reduction of biodiversity, ecosystem degradation, and climate change are not merely environmental issues but ethical failures stemming from anthropocentric worldviews.

Deep Ecology and the Ethics of Protecting the Web of Life

The environmental crises of the modern era—ranging from climate change to species extinction—have prompted profound philosophical reflection on the ethical foundations of human interaction with nature. One of the most significant responses is the theory and movement known as deep ecology, introduced by Norwegian philosopher **Arne Naess** in 1973. Deep ecology extends beyond superficial or reformist approaches to environmentalism, calling instead for a radical restructuring of human consciousness and societal values. It insists on an intrinsic, non-anthropocentric valuation of all life forms and advocates a lifestyle and policy shift toward sustainability and ecological balance.

The Shallow vs. Deep Ecology Divide

Naess (1973) distinguishes between "shallow ecology", which is concerned primarily with pollution and resource depletion for the sake of human welfare—especially in affluent societies—and **"deep ecology"**, which seeks to address the root causes of ecological degradation. Shallow ecology tends to reinforce anthropocentric values by emphasizing environmental protection only insofar as it benefits human beings. In contrast, deep ecology maintains that the flourishing of non-human life has value in itself, independent of any instrumental utility to humans.

Core Principles of Deep Ecology

Naess, along with George Sessions, formulated an eight-point platform that summarizes the core principles of deep ecology (Naess, 1989). Among these principles are the recognition of the inherent worth of all living beings, the commitment to reduce human interference with the natural world, and the advocacy for substantial changes in policies affecting economic and technological systems.

1. **Biospheric Egalitarianism**
   As earlier explained, at the heart of deep ecology is the idea of biospheric egalitarianism, which asserts that all living beings—whether humans, animals, plants, or microorganisms—possess intrinsic value (Devall & Sessions, 1985). This view opposes the long-standing anthropocentric tradition that values nature only for its usefulness to humans. Instead, deep ecology insists on equal respect for the rights of all life forms to live and flourish, advocating for the protection of the complex web of life in which each organism plays an irreplaceable role.

2. **Refutation of Atomic Individualism**
   Deep ecology rejects the **Cartesian notion of the isolated self** or "atomic individualism"—the idea that humans exist separately from and above the natural world. Instead, Naess (1989) proposes a **relational ontology** known as the “total-field image,” which emphasizes that **all organisms are interconnected nodes within a broader ecological network**. This interrelatedness implies that harming one part of the system has consequences for the whole, including humanity.
3. **Ecological Self and Identification with Nature**
   A pivotal ethical transformation in deep ecology involves the **expansion of the human sense of self**. Naess (1987) suggests that true self-realization involves identifying with nature to the extent that one no longer sees oneself as separate from it. By cultivating this **"ecological self"**, individuals can begin to care for nature not out of duty or altruism, but out of a profound **sense of identity and solidarity** with all forms of life.

4. **Self-Realization and Ethical Transformation**
   The ethical imperatives of deep ecology stem from its vision of **self-realization**, which is not a purely individualistic goal, but one that necessitates the inclusion of the broader ecological community. As environmental destruction stems largely from **human egoism and alienation from nature**, Naess (1989) argues that self-realization through unity with the web of life leads to the moral commitment necessary to address ecological crises. This realization reshapes ethical action from domination and exploitation to **care, respect, and restraint**.

The Ethical Imperative: Protecting the Web of Life

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Deep ecology offers a **revolutionary ethical framework** by redefining the moral community to include **all forms of life** and by grounding ethical obligations in a non-hierarchical, biocentric worldview. It calls for a **fundamental transformation of personal values, economic structures, and cultural ideologies** that promote consumption and human supremacy. To protect the web of life, deep ecology urges humans to **rethink their role as participants—not masters—of nature**. This ethical stance is not merely theoretical but demands practical action—from reducing ecological footprints to engaging in political advocacy for conservation policies. The preservation of biodiversity, restoration of damaged ecosystems, and promotion of sustainable living all stem naturally from the deep ecological worldview. As Devall and Sessions (1985) emphasize, deep ecology is both a **philosophy and a movement**, urging holistic awareness and direct engagement with the Earth's well-being.

Critiques and Counterarguments

Despite its noble aspirations, deep ecology has faced significant criticisms. Some scholars argue that its emphasis on intrinsic value overlooks the practical necessity of balancing human welfare with environmental concerns. Others, like social ecologist Murray Bookchin (1987), criticize deep ecology for neglecting the social roots of ecological degradation, particularly hierarchies and systems of domination within human societies. Moreover, critics challenge the feasibility of assigning "interests" or "rights" to non-sentient beings like plants or ecosystems (Feinberg, 1974). They argue that deep ecology's ascription of moral status to all life forms reflects a projection of human values onto nature rather than an objective ethical framework. Nonetheless, proponents defend deep ecology by asserting that ethical consideration should extend beyond sentient beings, recognizing the systemic interrelations that sustain life on Earth.

Philosophical and Ethical Implications

Deep ecology contributes a profound philosophical dimension to environmental ethics. By challenging the dichotomy between humanity and nature, it redefines moral responsibility in a holistic framework. The movement draws from diverse traditions, including Spinozist monism, Gandhian nonviolence, Buddhist interdependence, and indigenous spiritualities, to advocate for an ethos of respect, care, and humility toward the natural world (Harding, 2002). Its emphasis on experiential wisdom over abstract rationalism invites a re-examination of modernity's assumptions about progress, individuality, and consumption. Deep ecology thus offers not only a critique of environmental degradation but a call for a transformative shift in human consciousness and societal structures.

Contextual Applications in Nigeria and Africa

Deep Ecology aligns with indigenous African cosmologies that perceive humans as integrally linked to nature. In Yoruba ontology, for instance, all life forms are seen as interconnected and morally significant (Ogungbemi, 1997). This cultural framework resonates with Deep Ecology's principles of biospheric egalitarianism and relational selfhood. Despite this philosophical compatibility, conservation practices in Nigeria remain largely anthropocentric, focused on economic exploitation of natural resources rather than ecosystem preservation (Akintola et al., 2020). Incorporating Deep Ecology into African conservation efforts could revitalize traditional ecological knowledge and foster more sustainable policies. For example, the rapid deforestation of the Niger Delta for oil extraction undermines biodiversity and violates Deep Ecology's ethical imperative. Policy reforms that prioritize ecological integrity, community-managed conservation areas, and educational programs on ecocentric ethics can bridge the gap between philosophy and practice (Nwoko, 2016).

Resultant Resolutions

The resolutions of this study highlight the shift from anthropocentric to ecocentric worldviews as fundamental to addressing ecological crises. Key findings include:

Key Resolutions	Description
Intrinsic Value of Nature	Recognition of all living beings as having intrinsic worth independent of human utility
Interconnectedness	Emphasis on the interconnectedness of all organisms within the ecosystem
Ethical Imperative	Advocacy for ethical responsibility extending to nonhuman life

Critiques	Identification of critical perspectives questioning the feasibility and anthropomorphism inherent in deep ecology

The study therefore aligns with the research objective of exploring ethical frameworks supporting biodiversity conservation. From the resolutions which span from the critical discussions above, there is evident interrelation of deep ecology principles and biodiversity conservation outcomes. Therefore there is need for a Conceptual Model Linking Deep Ecology and Biodiversity Conservation. This model goes thus:

Deep Ecology Principles ➞ Ethical Responsibility ➞ Conservation Practices ➞ Biodiversity Preservation.
From the study, this implies that deep ecological ethics provide a robust philosophical foundation for sustainable biodiversity conservation. The emphasis on intrinsic value and systemic interconnectedness promotes conservation strategies that prioritize ecological balance over human convenience. However, criticisms highlight the need for practical approaches that harmonize human needs with ecological integrity.

Conclusion

This study concludes that Deep Ecology offers a compelling ethical paradigm for biodiversity conservation through its affirmation of the intrinsic value and interconnectedness of all life forms. Adopting ecocentric conservation policies grounded in Deep Ecology could lead to measurable outcomes such as the protection of up to 30% of critical habitats, a 20% improvement in species richness, and a substantial reduction in biodiversity loss over the next decade (UNEP, 2022). However, implementation faces notable challenges, including resistance from policy makers influenced by economic growth paradigms, limited public awareness of ecocentric ethics, and insufficient funding for ecologically sound initiatives. Institutional inertia and weak enforcement mechanisms further undermine conservation efforts in developing countries. To overcome these barriers, a multifaceted strategy is recommended: integrating Deep Ecology into national curricula, promoting community-led conservation efforts, and aligning environmental laws with ecocentric principles. Only by confronting these systemic limitations can the transformative potential of Deep Ecology be realized in both philosophical and practical terms. Therefore, reiterating the main findings and resolutions, this study underscores the necessity of a paradigm shift from anthropocentric to ecocentric worldviews in addressing ecological degradation. It reaffirms the principles of biospheric egalitarianism, the intrinsic value of all life forms, the ethical imperative for biodiversity conservation, and the significance of interconnectedness among all beings.

References

Akintola, G. O., Adewale, A., & Afolayan, F. (2020). Traditional ecological knowledge and modern environmental policies in Nigeria. *Journal of African Environmental Studies*, 14(2), 101–117.

Bookchin, M. (1987). *Social ecology versus deep ecology: A challenge for the ecology movement* (Green Perspectives No. 4). Institute for Social Ecology. http://dwardmac.pitzer.edu/Anarchist_Archives/bookchin/socecovdeepeco.html

Botkin, D. B. (1990). *Discordant harmonies: A new ecology for the twenty-first century*. Oxford University Press.

Devall, B., & Sessions, G. (1985). *Deep ecology: Living as if nature mattered*. Gibbs Smith.

Feinberg, J. (1974). The rights of animals and future generations. In W. T. Blackstone (Ed.), *Philosophy and environmental crisis* (pp. 43–68). University of Georgia Press.

Fox, W. (1990). *Toward a transpersonal ecology: Developing new foundations for environmentalism*. Shambhala Publications.

Harding, S. (2002). What is deep ecology? *Resurgence*, (210), 12–14.

Leopold, A. (1949). *A Sand County Almanac and sketches here and there*. Oxford University Press.

Naess, A. (1973). The shallow and the deep, long-range ecology movement: A summary. *Inquiry*, *16*(1–4), 95–100. https://doi.org/10.1080/00201747308601682

Naess, A. (1987). Self-realization: An ecological approach to being in the world. *Trumpeter*, *4*(3), 35–42.

Naess, A. (1989). *Ecology, community and lifestyle: Outline of an ecosophy* (D. Rothenberg, Trans.). Cambridge University Press.

Nwoko, K. C. (2016). Environmental policy and biodiversity conservation in Nigeria: An appraisal. *African Research Review*, 10(2), 85–98.

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Ogungbemi, S. (1997). An African perspective on the environmental crisis. *In D. E. Cooper & J. A. Palmer (Eds.), Spirit of the Environment: Religion, Value and Environmental Concern* (pp. 193–206). Routledge.

Rescher, N. (2001). *Philosophical inquiry: An introduction to its problems and vocabulary*. Blackwell.

United Nations Environment Programme (UNEP). (2022). *Global biodiversity outlook 5*. https://www.unep.org/resources/report/global-biodiversity-outlook-5

White, L. (1967). The historical roots of our ecological crisis. *Science*, *155*(3767), 1203–1207. https://doi.org/10.1126/science.155.3767.1203