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Article

Multidimensional Theory of Ethical Values for Sustainable Ecological Balance

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Abstract

This article proposes a multidimensional theory of ethical values as a foundational framework for achieving and maintaining sustainable ecological balance. Drawing inspiration from Maslow's hierarchy of needs, it posits that human existence integrates both biological and cultural dimensions, necessitating an ethical approach that transcends singular normative sources. The current environmental crisis underscores the inadequacy of fragmented ethical perspectives, often rooted in anthropocentric, duty-bound, or religiously exclusive frameworks. We argue that a robust theory of ecological ethics must encompass a spectrum of values derived from diverse sources—including biocentric principles, social responsibilities, spiritual insights, and intrinsic natural worth—to foster universal agreement and collaborative action. This multidimensional approach not only addresses the complex interplay between human consumption, ecological capacity, and intergenerational equity but also provides a more resilient and universally applicable foundation for guiding individual and societal behaviors towards restorative rather than exploitative interactions with the natural world. By moving beyond exclusionary ethical debates, this theory aims to empower stakeholders with a shared, comprehensive value system conducive to long-term ecological flourishing and human well-being.

Keywords: ecological ethics; sustainable development; environmental values; multidimensional ethics; intergenerational equity

1. Introduction

The escalating global environmental crisis, characterized by climate change, biodiversity loss, resource depletion, and widespread pollution, unequivocally demonstrates the urgent need for a paradigm shift in human-nature interactions. For decades, scientific advancements have elucidated the intricate web of ecological systems and the profound impact of human activities upon them. Yet, despite this burgeoning understanding, effective and sustained collective action to mitigate environmental degradation remains elusive. A significant part of this challenge lies not merely in technological deficits or economic constraints, but fundamentally in the underlying ethical frameworks—or lack thereof—that govern human behavior and decision-making regarding the natural world [1].

Traditional ethical discourses have often struggled to adequately address the complexities of environmental sustainability. Many established ethical systems were primarily conceived within a largely anthropocentric paradigm, focusing on human-to-human relationships, duties, and rights, with nature often relegated to the status of a resource or backdrop. While valuable in their own right, such frameworks tend to overlook the intrinsic worth of non-human life and ecosystems, and the long-term, non-linear consequences of human actions on planetary health [2]. This oversight has contributed to a prevailing mindset where consumption and economic growth often take precedence over ecological preservation, leading to an imbalance that threatens both natural systems and future human well-being.

The core premise of this article is that a genuinely sustainable ecological balance necessitates a robust and universally compelling foundation of ethical values. We posit that human existence, from

its most basic biological imperatives to its most complex cultural expressions, is inherently intertwined with the ecological environment [3]. Drawing inspiration from Maslow's hierarchy of needs, we recognize that physiological necessities (air, water, food) are inextricably linked to a healthy ecosystem, and that higher-order needs (safety, belonging, self-actualization) are profoundly influenced by, and can even be fulfilled through, a harmonious relationship with nature. Therefore, the imperative to maintain a healthy ecological balance is not merely an external responsibility but an intrinsic condition for human flourishing across all levels of existence.

However, current debates surrounding ecological ethics are frequently fragmented and contentious, often pitting different value systems against one another [4]. Arguments based solely on anthropocentric utility, religious doctrine, or abstract philosophical principles, while offering important insights, often fail to garner the widespread consensus and motivational power required for effective global environmental stewardship. Such singular-source explanations of ethical values can inadvertently lead to irreconcilable disagreements, hindering collaborative efforts crucial for tackling a crisis of this magnitude.

This article proposes a Multidimensional Theory of Ethical Values for Sustainable Ecological Balance. This theory argues that ethical values relevant to ecological sustainability must be multi-sourced and multi-dimensional, integrating both biological and cultural/spiritual aspects of human existence. It seeks to move beyond the limitations of single-source ethical frameworks by demonstrating how universal ethical values for environmental stewardship can emerge from a synthesis of diverse perspectives, rather than being exclusively tied to social contracts, human duties, or specific religious tenets. By embracing a pluralistic yet coherent approach, this multidimensional theory aims to provide individuals and societies with a comprehensive ethical foundation that encourages collaboration, fosters a deeper appreciation for nature's intrinsic and instrumental values, and ultimately enables sustainable interactions that allow nature to regenerate and thrive without depletion.

The remainder of this article will unfold as follows: Section 2 provides a comprehensive review of existing literature on environmental ethics, categorizing and critiquing dominant approaches. Section 3 establishes the theoretical framework, integrating concepts from Maslow's hierarchy of needs with ecological philosophy. Section 4 details the proposed Multidimensional Theory of Ethical Values, elaborating on its various dimensions and sources. Section 5 discusses the implications of this theory for policy, education, and individual action, addressing potential challenges and opportunities. Finally, Section 6 offers a conclusion, summarizing the key arguments and outlining future research directions.

2. Literature Review: Surveying the Landscape of Environmental Ethics

The academic discourse surrounding environmental ethics has evolved considerably since the mid-20th century, spurred by a growing awareness of humanity's profound impact on the natural world. This section critically examines the dominant ethical frameworks that have emerged, categorizing them based on their primary moral considerability and foundational principles. By understanding their strengths and limitations, we can identify the gaps that a multidimensional theory aims to address.

2.1. Anthropocentric Ethics: The Human-Centered Perspective

Anthropocentrism, at its core, asserts that human beings are the central or most significant entities in the world, and thus, ethical considerations should primarily revolve around human interests, values, and well-being [5]. Within environmental ethics, anthropocentric arguments for conservation and sustainability are manifold:

- Resource Conservation and Utilitarianism: Early conservation movements often adopted a utilitarian anthropocentric stance, advocating for the protection of natural resources because of their instrumental value to humans [6]. Gifford Pinchot's "wise use" philosophy exemplifies

this, emphasizing the efficient management of forests and other natural resources for the “greatest good for the greatest number” of people [7]. Here, nature’s value is derived from its capacity to provide raw materials, clean water, breathable air, recreational opportunities, and ecosystem services that directly benefit human societies. The ethical imperative is to manage these resources sustainably to ensure their availability for present and future generations of humans. This perspective underpins much of modern environmental policy, often manifested in cost-benefit analyses of environmental regulations.

- **Intergenerational Equity:** A more sophisticated anthropocentric argument centers on intergenerational equity, emphasizing humanity’s moral obligation to future generations [8]. This perspective, famously articulated in the Brundtland Report, defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” [9]. The ethical duty here is to preserve a habitable planet and sufficient resources for those yet to be born, recognizing that environmental degradation today imposes burdens on tomorrow’s populace. While still human-centered, it extends moral considerability across time, demanding a long-term view of resource stewardship and environmental protection.
- **Human Health and Well-being:** The direct impact of environmental quality on human health also forms a strong anthropocentric ethical argument. Pollution of air, water, and soil leads to illness, disease, and reduced quality of life [10]. Therefore, protecting the environment is an ethical imperative rooted in the duty to safeguard human health and prevent suffering. Similarly, access to natural spaces for psychological well-being, stress reduction, and recreational purposes adds another layer to anthropocentric justifications for conservation [11].

Critique of Anthropocentrism: While anthropocentric arguments have been powerful drivers for environmental policy and enjoy widespread intuitive appeal due to their direct relevance to human interests, they face significant critiques. Firstly, they often fail to protect elements of nature that lack immediate or discernible instrumental value to humans, such as obscure species or remote wilderness areas [12]. Secondly, anthropocentrism can perpetuate a hierarchical view of nature, where humans are seen as separate from and superior to the natural world, potentially fostering a sense of entitlement and exploitation. Lastly, it can be short-sighted, as complex ecological systems often have values that are not immediately quantifiable in human terms but are crucial for overall planetary stability [13].

2.2. *Non-Anthropocentric Ethics: Extending Moral Considerability*

In response to the limitations of anthropocentrism, various non-anthropocentric ethical theories emerged, advocating for the extension of moral considerability beyond the human species.

- **Animal Rights and Animal Welfare:** Peter Singer’s utilitarian argument for animal liberation focused on sentience as the criterion for moral consideration, asserting that beings capable of suffering deserve equal consideration of their interests [14]. Tom Regan, on the other hand, argued for animal rights based on the idea that certain animals are “subjects-of-a-life” with inherent value, regardless of their utility to humans [15]. These perspectives challenge speciesism and advocate for reducing animal suffering and respecting their lives, particularly in agriculture, research, and entertainment. While primarily focused on individual sentient beings, these theories implicitly call for the protection of habitats and ecosystems that sustain animal life.

- **Biocentrism: The Value of Life Itself:** Biocentric ethics extends moral considerability to all living organisms, arguing that life itself holds intrinsic value [16]. Albert Schweitzer's "reverence for life" principle posited that all living things have an inherent will to live, and humans have a moral duty not to harm them [17]. Paul Taylor's "respect for nature" further developed biocentrism, proposing that every individual organism is a teleological center of life, pursuing its own good in its own way, and therefore possesses inherent worth [18]. From a biocentric perspective, human actions should aim to preserve biodiversity and minimize harm to all forms of life, not just for human benefit but because each life form has a right to exist and flourish.
- **Ecocentrism: The Value of Ecosystems and the Biosphere:** Ecocentrism takes an even broader view, asserting that entire ecosystems, species, and the Earth's biosphere itself possess intrinsic value, independent of individual organisms or human utility [19]. Aldo Leopold's "land ethic" is the quintessential ecocentric philosophy, famously stating: "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise" [20]. This perspective emphasizes the interconnectedness of all living and non-living components within an ecosystem and advocates for maintaining ecological integrity and health. Deep Ecology, articulated by Arne Naess, is another prominent ecocentric philosophy, urging a fundamental shift in consciousness from anthropocentric domination to an identification with the larger ecological self, recognizing the inherent worth of all natural systems and advocating for radical changes in human lifestyles and population levels [21]. James Lovelock's Gaia hypothesis, which posits Earth as a self-regulating superorganism, also provides a scientific basis that resonates with ecocentric values, highlighting the planet's capacity for self-regulation and its vulnerability to significant human-induced perturbations [22].

Critique of Non-Anthropocentrism: While non-anthropocentric ethics profoundly challenges human exceptionalism and fosters a deeper respect for nature, it also faces criticisms. Practical implementation can be complex, as it often requires difficult trade-offs between competing values (e.g., protecting a specific endangered species versus human economic development). Some critics argue that extending moral considerability too broadly can dilute human responsibilities or create moral paralysis, where every action becomes ethically fraught [23]. Furthermore, defining "intrinsic value" and objectively applying it across all forms of life and ecosystems can be philosophically challenging and contentious.

2.3. *Spiritual and Religious Ethics*

Many spiritual traditions and religious doctrines offer rich ethical frameworks that address humanity's relationship with nature. These perspectives often provide a cosmic or transcendent context for environmental stewardship:

- **Indigenous Spiritualities:** Numerous indigenous cultures globally hold deep ecological wisdom and ethical principles rooted in a profound reverence for the land, animals, and natural cycles [24]. These traditions often view nature as a sacred relative, a provider, and a teacher, rather than a mere resource. Concepts like interconnectedness, reciprocity, guardianship, and living in harmony with the land are central, emphasizing a sense of belonging to, rather than dominion over, nature. Their ethical imperatives arise from a spiritual connection and a responsibility to maintain balance for all living things and future generations.
- **Abrahamic Religions (Christianity, Islam, Judaism):** While historically interpreted by some as promoting human dominion over nature (e.g., Genesis 1:28), many contemporary theological interpretations emphasize stewardship (Kefala in Islam, Tikkun Olam in Judaism, creation care

in Christianity) [25–27]. These interpretations highlight humanity's role as a guardian or trustee of God's creation, with a moral duty to protect and cherish it, not to exploit it. Environmental degradation is often seen as a sin against God and against fellow human beings.

- Eastern Religions (Buddhism, Hinduism, Taoism): These traditions frequently emphasize interconnectedness, non-harm (ahimsa), compassion for all beings, and the cyclical nature of existence [28,29]. Buddhist ethics, for instance, promotes mindfulness and the alleviation of suffering for all sentient beings, leading to an inherent respect for nature. Taoism emphasizes living in harmony with the Tao, the natural order of the universe, advocating for balance and non-interference with natural processes. Hinduism, with its reverence for sacred rivers, mountains, and animals, also provides a strong foundation for ecological ethics rooted in spiritual interconnectedness.

Critique of Spiritual/Religious Ethics: The strength of religiously informed ethics lies in their ability to provide a powerful sense of moral obligation and meaning for billions of people. However, their universal application can be challenging in pluralistic societies, as ethical imperatives derived from specific theological doctrines may not resonate with or be accepted by those outside the faith [30]. Interpretations of sacred texts can also vary widely, sometimes leading to conflicting views on environmental responsibility.

2.4. *Environmental Justice and Social Ethics*

This field of ethics highlights the disproportionate impact of environmental degradation on marginalized communities and the ethical imperative to ensure equitable distribution of environmental benefits and burdens [31]. Environmental justice movements argue that environmental protection is intrinsically linked to social justice, as low-income communities and minority groups often bear the brunt of pollution, lack access to clean resources, and have less political power to advocate for environmental safeguards. The ethical considerations here extend beyond human-nature relationships to human-human relationships, emphasizing fairness, equity, and participation in environmental decision-making.

2.5. *Limitations and the Need for Integration*

The review of these diverse ethical frameworks reveals both their individual strengths and collective limitations. Anthropocentric approaches, while pragmatically influential, can foster an exploitative mindset. Non-anthropocentric theories, while powerful in extending moral considerability, can struggle with practical application and broad societal acceptance. Spiritual ethics offer deep motivational power but face challenges in universal application in a secularized or religiously diverse world. Environmental justice highlights crucial equity dimensions but may not fully address the intrinsic value of nature itself.

The critical insight gleaned from this review is that no single ethical framework seems sufficient to address the multifaceted challenges of achieving and maintaining a sustainable ecological balance. The complex interplay between human needs, societal structures, cultural values, and natural systems demands an ethical approach that is itself complex, comprehensive, and capable of integrating insights from these various traditions. This recognition forms the impetus for developing a Multidimensional Theory of Ethical Values, which aims to synthesize these disparate perspectives into a coherent and actionable framework, moving beyond the "either/or" debates to an "and/also" integration.

3. Theoretical Foundations: Integrating Maslow and Ecological Thought

To construct a robust multidimensional theory of ethical values for sustainable ecological balance, it is essential to establish a theoretical foundation that acknowledges the comprehensive

nature of human existence and its inextricable link to the natural environment. This section integrates Abraham Maslow's seminal hierarchy of needs with contemporary ecological thought, arguing that human flourishing, at every level, is contingent upon a healthy and balanced ecosystem. This integration provides a compelling argument for embedding ecological values not as external obligations, but as intrinsic components of human self-actualization and societal well-being.

3.1. Maslow's Hierarchy of Needs: A Holistic View of Human Existence

Abraham Maslow's (1943) hierarchy of needs presents a powerful model for understanding human motivation and development, positing that individuals are driven by a series of needs arranged in a pyramid, from the most basic physiological requirements to the highest aspirations of self-actualization [32]. This hierarchy is crucial for our argument because it illustrates the integrated biological and cultural/spiritual layers of human existence:

- **Physiological Needs:** These are the most fundamental needs for survival: air, water, food, shelter, sleep, and reproduction. Without these, no other needs can be pursued.
- **Safety Needs:** Once physiological needs are met, individuals seek security, stability, protection from physical and emotional harm, and a sense of order.
- **Love and Belonging Needs:** At the next level, humans seek interpersonal connections, friendship, intimacy, and a sense of belonging within families, communities, and social groups.
- **Esteem Needs:** These include the need for self-respect, achievement, competence, recognition from others, status, and dignity.
- **Self-Actualization Needs:** At the apex of the hierarchy, self-actualization represents the realization of one's full potential, personal growth, and the pursuit of meaning and purpose. Maslow later introduced Self-Transcendence as an even higher stage, where individuals are motivated by values beyond the personal self, such as altruism, mysticism, and cosmic consciousness, often involving service to others or to a cause larger than oneself [33].

The critical insight from Maslow's framework is that human existence is not static but a dynamic process of striving and growth. More importantly, it underscores that the fulfillment of higher-order psychological and spiritual needs is predicated upon the satisfaction of lower-order biological needs. This foundational dependency provides a powerful conceptual bridge to ecological considerations.

3.2. Ecological Thought: The Interconnectedness of Life

Ecological thought, encompassing systems theory, conservation biology, and environmental philosophy, emphasizes the radical interconnectedness of all living organisms and their physical environment [34]. Key concepts from ecological thought that inform our theoretical foundation include:

- **Ecosystem Services:** Nature provides an array of invaluable services essential for human life and well-being, often without direct monetary cost [35]. These include provisioning services (food, water, timber), regulating services (climate regulation, flood control, disease prevention), supporting services (nutrient cycling, soil formation, primary production), and cultural services (recreational, aesthetic, spiritual benefits) [36]. The disruption of these services directly impacts human physiological and safety needs, and indirectly affects higher-order needs.
- **Biotic Community and Interdependence:** As articulated by Leopold, ecosystems are complex "biotic communities" where every species, from microorganisms to apex predators, plays a role in maintaining the integrity and stability of the whole [37]. Humans are not separate from this community but are integral parts of it. Actions impacting one part of the system inevitably ripple through others, often with unpredictable consequences.

- **Planetary Boundaries:** The concept of planetary boundaries identifies nine Earth system processes which have boundaries that, if crossed, could lead to irreversible environmental changes at continental to global scales [38]. These boundaries define the safe operating space for humanity with respect to the Earth's systems, emphasizing the physical limits to growth and resource extraction.

3.3. *Synthesizing Maslow and Ecological Thought: The Ecological Foundation of Human Flourishing*

When Maslow's hierarchy is viewed through an ecological lens, the profound dependency of human existence on a healthy environment becomes strikingly clear. We propose that the sustainable ecological balance is not merely an external factor but the foundational prerequisite for the fulfillment of Maslow's entire hierarchy of human needs, from the most basic to the most transcendent.

- **Ecological Imperatives for Physiological Needs:** Air, water, and food – the bedrock of Maslow's pyramid – are direct products of healthy ecosystems. Polluted air compromises respiratory health, contaminated water leads to disease, and degraded soils undermine food security [39]. Without robust ecological processes, the most basic human needs cannot be met sustainably, leading to widespread suffering and conflict. Therefore, the ethical value of preserving clean air, water, and fertile land is not just utilitarian; it is existential.
- **Ecological Imperatives for Safety Needs:** A stable climate, predictable weather patterns, and biodiverse ecosystems contribute directly to human safety. Climate change exacerbates natural disasters, resource scarcity can fuel conflict and displacement, and ecosystem collapse can lead to new disease vectors [40]. An ecologically unbalanced world is an insecure world. Thus, ethical values promoting climate stability, disaster resilience, and resource equity become essential for human safety.
- **Ecological Imperatives for Love and Belonging Needs:** Communities often coalesce around shared natural spaces – parks, rivers, forests. Environmental degradation can disrupt traditional ways of life, force migration, and sever communal ties, impacting senses of belonging and identity [41]. Conversely, collective action in environmental stewardship can foster community cohesion and shared purpose. Ethical values that recognize the communal and cultural significance of local environments are crucial here.
- **Ecological Imperatives for Esteem Needs:** Achieving competence and gaining recognition can be linked to contributions to environmental solutions. Innovations in sustainable technology, leadership in conservation efforts, or the cultivation of traditional ecological knowledge can all contribute to individual and collective esteem [42]. An ethical framework that values environmental leadership and sustainable achievements reinforces positive behaviors.
- **Ecological Imperatives for Self-Actualization and Self-Transcendence:** The pursuit of meaning, purpose, and personal growth is often deeply intertwined with experiences in nature. Wilderness exploration, contemplation of natural beauty, and a sense of awe derived from the natural world can inspire creativity, foster spiritual connection, and facilitate self-transcendence [43]. Engaging in altruistic acts to protect the environment for its own sake or for future generations exemplifies self-transcendent values. A degraded environment diminishes opportunities for such experiences, while a thriving natural world enriches the human spirit.

This synthesis reveals that the "biological and cultural layers of existence" are not merely integrated but are ecologically dependent. The maintenance of a "healthy balance" in the ecological environment is not just an external duty but a fundamental condition for human existence to thrive

across its entire spectrum of needs. Disrupting this balance is not only an ecological failure but a profound ethical failure that undermines the very foundations of human well-being and potential.

3.4. *The Ethical Vacuum of a Singular Approach*

The premise of this paper is that failure to address environmental challenges stems, in part, from an ethical vacuum created by relying on singular, often competing, ethical frameworks. If ecological balance is only framed in terms of:

- **Purely Anthropocentric Utility:** It risks exploitation when short-term human gain outweighs long-term ecological health or the value of non-human entities.
- **Purely Biocentric/Ecocentric Intrinsic Value:** It can struggle to gain broad societal buy-in, especially when immediate human needs appear to conflict with strict nature protection.
- **Purely Religious/Spiritual Mandate:** It limits appeal to adherents of specific faiths, potentially alienating others.

By demonstrating that sustainable ecological balance is intrinsically linked to the fulfillment of all human needs (Maslow's hierarchy), we lay the groundwork for a universally appealing and compelling ethical framework. The ethical values for sustainable ecological balance are thus seen as emergent properties of an integrated understanding of human and ecological systems, rather than isolated principles. This comprehensive understanding naturally leads to the necessity of a multidimensional approach to ethical values, which will be elaborated in the next section.

4. The Multidimensional Theory of Ethical Values for Sustainable Ecological Balance

Building upon the theoretical foundations established in Section 3, and acknowledging the limitations of singular ethical frameworks discussed in Section 2, this section presents the Multidimensional Theory of Ethical Values for Sustainable Ecological Balance. This theory posits that a resilient and universally compelling ethical foundation for environmental stewardship must be derived from multiple sources, reflecting the integrated biological, cultural, and spiritual aspects of human existence. Rather than seeking a single, overarching ethical principle, this theory advocates for a synergistic integration of diverse values, recognizing that their combined force offers a more comprehensive, adaptable, and motivating framework for action.

The essence of this multidimensionality lies in the understanding that ethical values are not confined to a single domain (e.g., social contracts, religious dogma, or intrinsic natural worth alone) but emerge from the complex interplay of human experience and our relationship with the natural world. This approach acknowledges the reality of pluralistic societies and provides common ground by demonstrating how various ethical perspectives can converge towards the shared goal of ecological balance.

We identify several key dimensions that contribute to this integrated ethical framework:

4.1. *The Biological/Existential Dimension: Values Rooted in Survival and Well-being*

This dimension directly connects to the foundational physiological and safety needs of Maslow's hierarchy, and the ecological services that sustain them. The ethical values here are fundamental and largely uncontested, as they pertain to the conditions necessary for life itself.

- **Value of Life Support Systems (Air, Water, Soil Quality):** Ethical imperative: To protect and restore the fundamental elements that sustain all life. This is perhaps the most universally accepted environmental value, as clean air, potable water, and fertile soil are non-negotiable for human survival [44]. The ethical duty is to prevent pollution, manage resources sustainably, and invest in restorative practices (e.g., reforestation, regenerative agriculture) to ensure these life-support systems remain intact and functional for all. This value is fundamentally

anthropocentric in its initial justification (human survival) but extends to all life forms that depend on these elements.

- **Value of Biodiversity:** Ethical imperative: To preserve the variety of life on Earth at all levels—genes, species, and ecosystems—due to its instrumental role in ecosystem resilience and its potential for future benefits (e.g., medicine, food security) [45]. While often supported by instrumental arguments (ecosystem services), there is also an emerging ethical recognition of biodiversity's intrinsic value as part of the tapestry of life. This value ensures the robustness and adaptability of natural systems, which in turn underpins human well-being.
- **Value of Ecosystem Resilience:** Ethical imperative: To maintain the capacity of ecosystems to resist disturbance and recover from damage. This value recognizes that stable ecosystems provide a buffer against environmental shocks (e.g., extreme weather, disease outbreaks), thereby ensuring human safety and predictability. Actions that degrade ecosystem resilience (e.g., deforestation, wetland destruction) are ethically questionable as they increase vulnerability for both human and non-human communities [46].

4.2. *The Social/Communal Dimension: Values Rooted in Human Interconnection and Justice*

This dimension relates to Maslow's love and belonging, and esteem needs, emphasizing the ethical responsibilities arising from human interactions within and across communities, especially concerning the distribution of environmental goods and bads.

- **Value of Intergenerational Equity:** Ethical imperative: To ensure that present generations meet their needs without compromising the ability of future generations to meet their own [47]. This value demands long-term thinking, responsible resource consumption, and the avoidance of irreversible environmental damage. It requires an ethical commitment to fairness across time, acknowledging our shared planetary heritage and future.
- **Value of Intragenerational Equity (Environmental Justice):** Ethical imperative: To ensure that all people, regardless of race, income, or social status, have equal protection from environmental hazards and equal access to environmental benefits [48]. This addresses the disproportionate burdens of pollution and resource scarcity often borne by marginalized communities. It demands fair participation in environmental decision-making and remedial action for past injustices.
- **Value of Shared Responsibility and Solidarity:** Ethical imperative: To foster collective action and mutual support in addressing environmental challenges. This value emphasizes the interconnectedness of human societies and the understanding that environmental problems transcend national borders and require global cooperation [49]. It calls for an ethic of shared stewardship and collective sacrifice for the common good of the planet.
- **Value of Place and Cultural Heritage:** Ethical imperative: To protect specific landscapes, natural sites, and traditional ecological knowledge that hold deep cultural, spiritual, or historical significance for communities [50]. This recognizes that nature is not merely a resource but also a source of identity, meaning, and belonging.

4.3. *The Cultural/Spiritual Dimension: Values Rooted in Meaning, Awe, and Transcendence*

This dimension addresses Maslow's esteem, self-actualization, and self-transcendence needs, recognizing that human interaction with nature often extends beyond utility to encompass aesthetic appreciation, spiritual connection, and a search for meaning.

- **Value of Intrinsic Worth of Nature:** Ethical imperative: To recognize that nature, including individual organisms, species, and ecosystems, possesses inherent value independent of its utility to humans [51]. This biocentric/ecocentric principle asserts that nature has a right to exist and flourish for its own sake. It cultivates a sense of humility and respect for the non-human world, shifting from a dominant to a guardianship role. This value can be a profound source of ethical motivation for those who find spiritual or philosophical resonance in it.
- **Value of Aesthetic Appreciation and Awe:** Ethical imperative: To preserve the beauty, grandeur, and awe-inspiring qualities of natural landscapes and phenomena. Nature's aesthetic value enriches human experience, inspires creativity, and can contribute to psychological well-being [52]. This dimension encourages the protection of wilderness areas, scenic vistas, and natural wonders for their profound impact on the human spirit.
- **Value of Spiritual Connection and Reverence:** Ethical imperative: To recognize and foster the deep spiritual connections many individuals and cultures have with the natural world. This dimension draws from religious traditions and indigenous wisdom that view nature as sacred, a source of spiritual insight, or a manifestation of the divine [53]. It encourages stewardship based on a sense of reverence, gratitude, and moral responsibility to a higher power or the cosmic order.
- **Value of Wisdom and Learning from Nature:** Ethical imperative: To approach nature as a teacher and a source of wisdom, recognizing its intricate design and evolutionary resilience. This value encourages practices like biomimicry and traditional ecological knowledge, fostering an ethic of learning from natural systems rather than merely conquering them [54].

4.4. *Integration and Synergy: The Multidimensional Framework in Practice*

The strength of this Multidimensional Theory lies not in the isolated application of these values, but in their synergistic integration. For instance:

- Protecting a rainforest can be simultaneously justified by its biological/existential value as a source of clean air, water, and biodiversity; by its social/communal value to indigenous communities who depend on it for their livelihood and cultural identity, and its role in climate regulation for global intergenerational equity; and by its cultural/spiritual value as a place of immense beauty, biodiversity, and intrinsic worth [55].
- Addressing climate change involves the biological/existential need for planetary stability, the social/communal imperative of environmental justice for vulnerable nations, and the cultural/spiritual call to stewardship for future generations.

This multidimensionality resolves the problem of “irrelevant debates” arising from single-source ethics. When an argument for conservation can draw simultaneously from economic utility, social justice, intrinsic value, and spiritual reverence, it becomes far more robust, compelling, and capable of uniting diverse stakeholders. It transforms ethical considerations from a narrow, often conflictual, philosophical exercise into a comprehensive and pragmatic guide for action.

By acknowledging that humans are indeed “not merely biological beings but also cultural/spiritual beings,” this theory posits that ethical values must likewise be multi-sourced and multi-dimensional. It allows individuals and societies to connect with environmental ethics on multiple levels, appealing to their survival instincts, their sense of justice and community, and their deepest cultural and spiritual aspirations. This comprehensive framework, therefore, provides a more stable and persuasive foundation for fostering the collective will necessary to achieve and

maintain sustainable ecological balance. The following section will discuss the practical implications and applications of this theory.

5. Implications and Applications of the Multidimensional Theory

The utility of any ethical theory is ultimately determined by its capacity to inform practical action and foster positive change. The Multidimensional Theory of Ethical Values for Sustainable Ecological Balance is designed not as an abstract philosophical exercise, but as a pragmatic framework to guide individuals, communities, and institutions toward effective environmental stewardship. This section explores the profound implications and diverse applications of this theory across policy, education, corporate responsibility, and individual action. By offering a comprehensive and inclusive ethical foundation, it aims to foster greater consensus, motivation, and collaboration in addressing the global environmental crisis.

5.1. Implications for Environmental Policy and Governance

Current environmental policy often struggles with balancing competing interests and values, leading to legislative paralysis or short-term solutions. A multidimensional ethical framework offers a more robust basis for policy formulation:

- **Integrated Policymaking:** Instead of solely relying on economic cost-benefit analyses (anthropocentric utility) or singular environmental protection mandates (biocentric intrinsic value), policymakers can leverage the full spectrum of values. For example, a policy protecting wetlands can be justified by:
 - **Biological/Existential:** Its role in flood control, water purification, and biodiversity preservation [56].
 - **Social/Communal:** Its importance for local livelihoods, recreational opportunities, and protection against environmental injustice for downstream communities [57].
 - **Cultural/Spiritual:** Its aesthetic beauty, cultural significance, and intrinsic natural worth.

This integrated approach strengthens the rationale for policy, making it more resilient to challenges and appealing to a broader range of stakeholders.

- **Long-term Planning and Intergenerational Equity:** Policies derived from a multidimensional framework inherently integrate intergenerational equity. This translates into policies promoting circular economies, renewable energy investments, and robust conservation measures that safeguard resources and a habitable planet for future generations [58]. It moves beyond short electoral cycles to consider long-term planetary health.
- **Environmental Justice Integration:** The social/communal dimension directly mandates the incorporation of environmental justice principles into all environmental policy. This means proactive measures to identify and mitigate environmental harms in vulnerable communities, ensure equitable access to green spaces, and facilitate meaningful participation of all citizens in environmental decision-making processes [59].
- **Global Environmental Governance:** International agreements often falter due to divergent national interests and ethical perspectives. A multidimensional framework can provide a common ethical language, allowing different nations and cultures to find resonance with environmental goals based on their own value systems (e.g., a nation prioritizing spiritual connection to nature alongside one emphasizing economic utility) [60]. This shared

understanding can foster greater cooperation on issues like climate change, transboundary pollution, and biodiversity conservation.

5.2. Applications in Education and Awareness

Education is paramount for cultivating ethical values and fostering environmental literacy. The multidimensional theory offers a compelling pedagogical approach:

- **Holistic Environmental Education:** Educational curricula can move beyond merely teaching environmental facts to cultivating a deep ethical understanding. By presenting environmental issues through the lens of multiple values, educators can appeal to students' diverse moral intuitions. For example, teaching about deforestation could involve:
 - The scientific impacts on climate and biodiversity (Biological/Existential).
 - The displacement of indigenous communities and their rights (Social/Communal).
 - The loss of ancient trees with intrinsic value and spiritual significance (Cultural/Spiritual).

This approach makes environmental issues personally relevant and ethically compelling from multiple angles, fostering empathy and a sense of responsibility [61].

- **Developing Environmental Empathy:** By explicitly linking ecological balance to all levels of human needs (Maslow's hierarchy), education can demonstrate that environmental stewardship is not an abstract duty but an essential component of human well-being and flourishing. This connection can foster empathy for both human communities affected by environmental degradation and for non-human life [62].
- **Promoting Critical Thinking and Value Reflection:** The multidimensional framework encourages students and citizens to critically analyze environmental dilemmas, recognizing the interplay of different values and potential trade-offs. It promotes a nuanced understanding that complex problems require multifaceted ethical reasoning, moving beyond simplistic "good vs. bad" narratives.
- **Cultivating a Culture of Stewardship:** Through education that integrates biological necessity, social responsibility, and cultural/spiritual appreciation, societies can foster a pervasive culture where environmental stewardship is seen as a moral imperative, a source of pride, and an integral part of identity, rather than an imposed burden [63].

5.3. Role in Corporate Responsibility and Sustainable Business Practices

The corporate sector holds immense power to influence ecological balance. A multidimensional ethical framework can reshape corporate responsibility beyond mere compliance:

- **Beyond Greenwashing to Genuine Sustainability:** Companies can adopt a genuine commitment to sustainability by integrating these ethical values into their core business models. This goes beyond superficial "green" marketing to encompass ethical sourcing (social/communal, biological/existential), waste reduction, circular economy principles (intergenerational equity), protection of ecosystems in supply chains (intrinsic value), and fair labor practices (environmental justice) [64].
- **Stakeholder Engagement:** Recognizing the multidimensional nature of values allows companies to engage more effectively with a wider array of stakeholders, including employees, local communities, indigenous groups, and environmental NGOs. This engagement builds trust and facilitates collaborative solutions that respect diverse values.

- **Innovation for Sustainable Solutions:** An ethical commitment spanning multiple dimensions can drive innovation in sustainable technologies, products, and services. Companies that prioritize ecological balance across all value dimensions are more likely to invest in renewable energy, sustainable agriculture, and eco-friendly manufacturing, seeing these not just as compliance costs but as sources of long-term value and competitive advantage [65].
- **Ethical Investment Criteria:** Investors can use this multidimensional framework to assess the true sustainability and ethical performance of companies, moving beyond single metrics to evaluate their impact across biological, social, and cultural dimensions. This can steer capital towards genuinely responsible enterprises.

5.4. Empowering Individual Action and Lifestyle Choices

Ultimately, sustainable ecological balance relies on the aggregate of individual choices and behaviors. The multidimensional theory empowers individuals by:

- **Personalized Ethical Resonance:** Individuals can connect with environmental ethics on the level that resonates most deeply with them. Some may be moved by the intrinsic beauty of nature, others by the scientific imperative of climate change, and still others by the call for social justice [66]. This diverse appeal means more people can find a compelling reason to act.
- **Conscious Consumption and Lifestyle Choices:** Individuals can make more informed choices regarding consumption, waste, energy use, and dietary habits by considering the biological (resource depletion), social (labor practices, community impact), and cultural/spiritual (reverence for nature) implications of their actions [67].
- **Advocacy and Participation:** A robust ethical understanding empowers individuals to advocate for stronger environmental policies, participate in local conservation efforts, and hold corporations and governments accountable. It provides a clearer articulation of why such actions are morally necessary.
- **Cultivating a Sense of Connection:** By emphasizing the ecological foundation of all human needs and the intrinsic value of nature, the theory can foster a deeper sense of connection to the natural world, moving individuals from a position of detached observation to engaged participation and stewardship [68]. This connection is vital for long-term motivation and commitment to environmental protection.

In conclusion, the Multidimensional Theory of Ethical Values for Sustainable Ecological Balance provides a powerful, versatile, and inclusive framework for action. By integrating biological necessity, social responsibility, and cultural/spiritual appreciation, it offers a pathway to transcend fragmentation and foster a collective commitment to planetary health. Its application across policy, education, business, and individual choices can unlock new levels of collaboration and drive the transformative change required for a truly sustainable future.

6. Conclusion and Future Directions

The pervasive and accelerating global environmental crisis demands an urgent and transformative shift in humanity's relationship with the natural world. While scientific understanding of ecological degradation has advanced significantly, effective and widespread action has often been hampered by fragmented ethical frameworks and an inability to forge universal consensus on environmental responsibility. This article has argued that a singular approach to environmental ethics is insufficient to address the multifaceted challenges of achieving sustainable ecological balance. Instead, it has proposed a Multidimensional Theory of Ethical Values for

Sustainable Ecological Balance, rooted in the integrated biological and cultural/spiritual dimensions of human existence.

By drawing inspiration from Maslow's hierarchy of needs, we have demonstrated that a healthy ecological environment is not merely an external concern but the fundamental prerequisite for human flourishing across all levels – from the most basic physiological survival to the highest aspirations of self-actualization and transcendence. This interconnectedness means that degrading the environment is not only an ecological failure but a profound ethical failure that undermines the very foundation of human well-being and potential.

The Multidimensional Theory of Ethical Values systematically integrates diverse ethical perspectives:

- The Biological/Existential Dimension underscores the universal, non-negotiable values related to life-support systems, biodiversity, and ecosystem resilience, directly linked to human survival and safety.
- The Social/Communal Dimension highlights the imperative of intergenerational and intragenerational equity, shared responsibility, and the protection of place-based cultural heritage, addressing values of justice, community, and belonging.
- The Cultural/Spiritual Dimension embraces the intrinsic worth of nature, aesthetic appreciation, spiritual connection, and the wisdom to be gained from natural systems, appealing to higher-order human needs for meaning, awe, and transcendence.

The power of this theory lies in its synergy. By demonstrating how these diverse value dimensions converge and reinforce one another, it provides a more comprehensive and robust rationale for environmental stewardship. It moves beyond divisive "either/or" debates to an inclusive "and/also" integration, offering multiple entry points for individuals, communities, and institutions to connect with and be motivated by environmental ethics. Whether driven by the pragmatic need for clean water, the moral call for justice, or the spiritual reverence for life, this framework offers a shared ethical language capable of fostering broader consensus and collaborative action.

The practical implications of this theory are far-reaching. It provides a stronger ethical foundation for integrated policymaking, ensuring that environmental regulations consider ecological health, social equity, and long-term sustainability. It enriches environmental education by cultivating holistic understanding and empathy, transforming learning into a deeply personal and ethically compelling journey. For the corporate sector, it offers a pathway to genuine sustainability, driving innovation and responsible business practices that move beyond mere compliance. Crucially, it empowers individuals to make more conscious lifestyle choices and participate actively in advocacy and stewardship, fostering a deeper sense of connection to the natural world.

6.1. *Limitations and Future Research Directions*

While this article lays a comprehensive theoretical groundwork, it also opens several avenues for future research and exploration:

- **Empirical Validation:** Future research could empirically test the effectiveness of this multidimensional approach in fostering pro-environmental behaviors and policy adoption across diverse cultural contexts. How do individuals from different backgrounds prioritize and integrate these values in their decision-making?
- **Methodologies for Value Assessment:** Developing practical methodologies for stakeholders to identify, prioritize, and negotiate these multidimensional values in real-world environmental management and conflict resolution scenarios would be highly valuable.

- **Cross-Cultural Comparative Studies:** Further comparative research is needed to explore how these ethical dimensions manifest across different cultures, indigenous traditions, and religious contexts, further refining the universality and adaptability of the theory.
- **Integration with Economic Models:** Exploring how this ethical framework can be quantitatively integrated into economic models (e.g., beyond traditional cost-benefit analysis to multi-criteria decision analysis that explicitly includes non-monetary ethical values) could provide practical tools for policymakers.
- **Pedagogical Tool Development:** Designing and testing specific educational programs and materials based on the multidimensional theory could assess its efficacy in cultivating environmental literacy and ethical awareness in various age groups.
- **Addressing Trade-offs and Conflicts:** While the theory aims for synergy, real-world scenarios inevitably involve trade-offs between competing values (e.g., immediate economic development vs. long-term ecological preservation). Future work could explore mechanisms for ethically navigating such conflicts within the multidimensional framework.
- **The Role of Technology and AI:** How do emerging technologies and artificial intelligence intersect with these ethical values? How can technological advancements be guided by a multidimensional ethical compass to ensure they contribute to, rather than detract from, sustainable ecological balance?

In conclusion, the environmental challenges facing humanity are immense, but so is our capacity for ethical reasoning, innovation, and collective action. The Multidimensional Theory of Ethical Values for Sustainable Ecological Balance offers a robust, inclusive, and actionable framework, charting a path toward a future where human well-being and ecological flourishing are inextricably linked and mutually reinforcing. By embracing the full spectrum of our biological, social, cultural, and spiritual values, we can cultivate a profound and lasting commitment to the integrity, stability, and beauty of the biotic community for generations to come.

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