

Cosmic Rhythm and Human Duty: Indian Ecological Wisdom for a Time of Crisis

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Abstract

The accelerating ecological crisis of the twenty-first century compels a rethinking of humanity's place within nature. This paper explores Indian ecological wisdom as a philosophical resource for re-establishing balance between human aspirations and cosmic order. Drawing from Vedic and Upanishadic insights on ṛta (cosmic rhythm), dharma (duty), both of which guide individuals to take ethical action, it argues that ecological ethics in the Indian tradition is not merely utilitarian or anthropocentric but cosmo-centric—viewing humans as integral to the continuity of life. By comparing Indian ecological thought with Western philosophies such as deep ecology, process thought, and phenomenological environmentalism, this study demonstrates how both traditions, despite distinct ontological premises, converge on an ethics of reverence and responsibility. The works of Rabindranath Tagore, M.K. Gandhi and Sri Aurobindo are examined as modern exemplars who harmonized spiritual vision and ecological sensibility. Integrating ancient principles with contemporary ecological debates, the paper advocates for environmental education rooted in self-direction, experiential learning, and moral discernment. The conclusion emphasizes the need for human responsibility that extends beyond conservation to active participation in the cosmic rhythm that sustains all beings.

Keywords: Indian Traditional Knowledge (ITK), ecological thought, dharma, ṛta, ecological wisdom / ecological philosophy

1. Introduction

In recent decades, ecological imbalance has become an issue gathering momentum. Climate change, deforestation, species extinction, and unsustainable industrial practices have collectively unsettled the delicate balance that sustains planetary life. While scientific and technological solutions are indispensable, they often lack the moral depth and cultural grounding necessary to transform human consciousness. It is here that philosophical and civilizational traditions, especially those embedded in the Indian Traditional Knowledge (ITK), offer profound insight. Indian thought views the cosmos not as inert matter but as a living organism imbued with consciousness (cit). Every entity, animate or inanimate, participates in a grand rhythm—ṛta—the principle that regulates both natural and moral order.

The modern ecological discourse, particularly in the West, has been shaped by Utilitarian ethics, Enlightenment rationalism, and Anthropocentric worldviews. Thinkers like Rene Descartes and Francis Bacon emphasized human mastery over nature, while industrial capitalism accelerated the separation of humanity from its ecological matrix. In contrast, Indian philosophy envisions the world as an interdependent web, in which human duty (dharma) is essential to the welfare of all beings (sarvabhūta-hita). This ontological inclusivity redefines ethics as participation rather than domination.

In the contemporary global scenario, ITK becomes an essential pedagogical, andragogical and philosophical framework for sustainable education. The National Education Policy (NEP) 2020 recognizes this by calling for the integration of indigenous knowledge with modern disciplines. The goal is not to retreat into traditionalism but to rediscover the wisdom that harmonizes the scientific spirit with ecological reverence.

The paper explores how Indian ecological wisdom, particularly through the concepts of ṛta, and dharma, offers an alternative to reductionist environmental paradigms. It examines the interpretive relevance of Tagore's, Gandhi's and Aurobindo's thought, who reimagined human evolution as an ethical-spiritual ascent aligned with nature's rhythm. Further, it proposes an andragogical approach to environmental education, characterised by self-directed, reflective learning grounded in lived experience, to apply these insights in modern education. The comparative discussion situates Indian thought alongside Western eco-sophical thought, arguing for a global philosophy of sustainability grounded in shared moral responsibility.

The rationale of the paper is that Indian Traditional Knowledge (ITK) embodies deep ecological insight, perceiving nature as sacred and interconnected. Its holistic worldview, grounded in ṛta and dharma, provides a moral and cosmological framework for addressing today's environmental crisis, offering both intellectual depth and practical wisdom for sustainable living and global ecological renewal. Therefore, important questions raised for which we are seeking concrete answers are: How can the ethical and metaphysical principles within

Indian ecological wisdom—especially *ṛta* (cosmic order) and *dharma* (righteous duty)—be applied to reorient modern environmental philosophy and education, bridging the gap between theoretical concern for nature and the lived practice of ecological responsibility?

2. Understanding Indian Traditional Knowledge

Wisdom is tied to the natural world in different ways within a given tradition and culture. Such knowledge is the ethnic heritage and responsibility of its people. It is the way we integrate knowledge and belief into a broader context of action to make the best choices. The land and living entities are part of “the environment” along with its people. As soon as we say this, what emerges from such a relationship, is people’s ideas, beliefs & thoughts of belongingness to the environment in which they live. The relation of belonging is ontologically essential. Immanuel Kant in *Critique of Pure Reason* discusses the fundamental question of ‘What is Man?’ He replies, ‘Man is a being, who is able to know, hope and ought to do.’ In other words, we share our personal good with the common good of the cosmos. The term, “lifeway,” emphasizes this holistic context that grounds the traditional knowledge on environment, evident in the cosmologies of native people. The natural thinkers in India communicated their ideas through oral narrative stories, transmitted the worldview values of the people and described the network of human activities within the powerful spirit world that belonged to the local bioregion.

This human-nature network or association is unique and dynamic. Hence, as many world views one has on this planet, the many varieties of “lifeway” characteristics of native people one can recognize. Indian Traditional Knowledge (ITK) is one such life lesson that can be viewed in this manner. The concern for the spontaneity of religious experiences, coupled with remarkable intimacy with local bioregions believed to be the origin of sacred revelation, has led to the development of ritualistic practices that instill collective memories of people living in India and their homeland in individual bodies and minds. Along with these, survivals in the face of human assault, natural disaster, or deprivation have been a conscious concern for them.

As a matter of fact, the awareness of native people in India about their own environment was much broader and more open. The idea is to trace the origin of this human-nature relation in history, which is covered today in environmental studies. Hence, we must examine the connection between environmental science and ecology within modern science as a way forward in life. A way of life does not take place in a vacuum. It is based on a way of thinking that focuses on analysing the environment and its constituents in minute detail.

As a result, Indian understanding of nature or ecology is essentially elemental existence. The Environment (Protection) Act, 1986, in India, defines the environment as follows: ‘Environment includes water, air, land, and the inter-relationship among and between water, air, land, human beings, other living creatures, plants, micro-organisms, and property.’

3. Ecology as a cultural and spiritual renewal: the Indian perspective

The Vedic worldview, with its “powerful symbolism” and “cosmic outlook,” offers an alternative vision that encompasses both the animate and inanimate aspects of creation. The Vedas speak of one primordial being that serves as the foundation for both the intelligent and material aspects of creation. The explanation of creation is based on the presupposition that the elements arise from the activities of the unified Supreme Being, referred to as Prajapati or Hiranyagarbha. According to academician-cum-activist Meera Baidur, ‘Embedded in these theories are also hypotheses that explain the division of conscious and unconscious matter and distinguish the sentient from the insentient.

The Vedas often refer to the five elements as *panchamahabhutas* - Earth, Water, Fire, Air, and Space — collectively called a group. However, they are not considered similar in their conceptualizations, and not all schools of Indian Philosophy accept all five elements in their entirety. Among the five, fire and air are fundamental and are the primary deities of the Vedic pantheon. The Earth is described as a goddess, a singular deity. The sky and water are divine controllers, deified for enabling life, sustenance, and growth. In the highly revered Atharva Veda, a Hymn to the Earth (*Bhumi-Sukta*) reflects environmental values.

One Upanishadic theory suggests that the universe, composed of five basic elements known as ‘nature,’ has preserved a balance among these elements and living beings. Any shift in the proportion of an environmental component beyond certain thresholds disturbs this balance, causing various issues for life forms. Environmental elements are interconnected with specific relationships. The bond between humans and the environment is intrinsic, as humans depend on it for survival. Since creation’s dawn, humans have continually strived to understand the environment for their protection and advantage.

The Vedic Seers, or early cosmologists, saw themselves as children of nature. They observed nature’s phenomena very closely, witnessing sandstorms, cyclones, intense lightning, thunder, heavy monsoon rains, swift floods from hill streams, scorching sun, and fiery flames—all of which they believed were beyond human

control. Deeply feeling the power of these forces, they worshipped and revered them with awe, surprise, and fear. They instinctively recognized that natural actions like movement, creation, change, and destruction arise from forces greater than humans can command. As a result, they regarded nature itself as divine.

4. The ethical dimension of Indian Ecological Wisdom as *ṛta* (cosmic rhythm) and *dharma* (human duty)

The ethical dimensions of ecology in Indian philosophy emerge from its metaphysical vision. In contrast to Western dualisms that separate the sacred and secular, Indian thought perceives continuity between the cosmic, moral, and human realms. The Ṛgvedic hymns celebrate the cosmos as a dynamic, rhythmic order—*ṛta*—sustained through right action. *Ṛta* is not simply natural law but moral law governing both gods and humans. In ecological terms, it symbolizes the balance and interdependence among all elements of life.

From *ṛta* arises *dharma*, the duty that sustains social and cosmic harmony. Each individual, by performing their role in accordance with *svadharma* (personal duty), contributes to the overall equilibrium. Violation of this principle leads to disorder (*adharma*), reflected in ecological disruption. The Bhagavad Gītā reiterates this by linking righteous action (*karma yoga*) to selfless service and ecological harmony (Gītā 3.30). Thus, human ethics is inseparable from environmental balance.

The Upanishadic worldview goes further by asserting the unity of all existence (*sarvam khalvidam brahma*). Therefore, ecological ethics involve recognizing the same Self in every being. The Īśāvāsya Upanishad famously begins, “*Īśāvāsyam idam sarvam*”—“All this is pervaded by the Divine” (Īśā Upanishad 1). The knowledge of Vedic sciences aims to save humans from falling into total darkness caused by ignorance. The message of Vedic physical and metaphysical sciences is the unity in diversity. The first mantra of the Īśāvāsya Upanishad captures the essence of environmental studies:

*īśā vāsyam idam sarvaṃ yat kiñca jagatyāṃ jagat |
tena tyaktena bhūñīthā mā ḡrdhaḥ kasya sviddhanam || 1 ||*

In the Lord is to be veiled all this—whatsoever moves on earth.

Through such renunciation do thou save (thyself); be not greedy, for whose is wealth?

In other words, one should enjoy by renouncing – perform a *yajna* of disowning. The Vedic message clearly states that the environment belongs to all living beings, so it requires protection from everyone for the benefit of all. This vision dissolves the subject-object dichotomy, shifting the human view of the planet from just considering it as matter to recognizing other planetary existences, which promotes spiritual engagement.

Contemporary environmental ethics often switch between biocentrism and anthropocentrism. The deep ecology movement, inspired by Arne Naess, aligns with Indian non-dualism by recognizing the inherent value of all living beings. Naess’s *ecosophy*—an ecological philosophy—advocates for self-awareness through identification with nature (Naess, 1989). Likewise, Aldo Leopold’s *land ethic* (1949) suggests that humans are simply members of the broader biological community. Indian philosophy has anticipated these ideas for thousands of years, and even surpasses them by integrating metaphysics with ethical considerations.

The concept of *Ojas Tatva* i.e. conscious sustainability, in Indian philosophy symbolizes the vital essence that sustains life, balance, and harmony. It represents conscious sustainability, nurturing all forms of life with awareness and responsibility (Table 1).

SDG Goals	Use of Metaphor	Textual Source	Interpretation of Ojas Tatva	Principles Applied (Jnana, Karma, Viveka, Niti)	Contemporary Relevance
SDG 2: Zero Hunger	Annapurna – The Goddess of Nourishment	Taittiriya Upanishad — “Annam Brahma” (Food is Brahman)	Food is sacred and represents divine energy that sustains life. Sharing nourishment equitably reflects compassion (<i>karuna</i>), respect for life.	Samyak Karma – Righteous action through equitable food distribution; Niti – Ethical food systems promoting social justice.	Promotes sustainable agriculture, reduction of food waste, and compassionate consumption practices.
SDG 6: Clean Water and Sanitation	Ganga – The River of Purity	Rig Veda 10.75 – Rivers are praised as life-sustaining mothers.	Purity of water symbolizes purity of thought and conduct. Conserving water mirrors mental and spiritual discipline.	Samyak Jnana – Understanding water as sacred; Viveka – Wise and balanced use of natural resources.	Encourages water conservation, clean water access, sanitation awareness, and eco-spiritual respect for rivers.
SDG 13: Climate Action	Agni – The Fire Principle	Atharva Veda 12.1 – “The	Fire represents both transformation and	Samyak Karma – Responsible action	Promotes renewable energy, climate

		Earth is our Mother; may we not harm her.”	responsibility. Harnessing energy wisely ensures ecological balance and spiritual progress.	for climate protection; Viveka – Judicious use of energy and technology.	resilience, and mindful lifestyle changes to reduce carbon footprint.
SDG 15: Life on Land	Prithvi – The Earth as the Great Mother	Bhumi Sukta, Atharva Veda 12.1.12 – “Whatever I dig from thee, O Earth, may that have quick growth again.”	Earth symbolizes patience, fertility, and interdependence. Sustainability means reciprocity and gratitude toward nature.	Niti – Ecological ethics; Samyak Jnana – Recognizing the interconnectedness of all life.	Promotes afforestation, biodiversity conservation, soil health, and coexistence with nature.

Table 1: A comparative list displaying metaphors from Indian scriptural traditions, highlighting its applicability. The andragogical implication of these principles lies in cultivating awareness through experiential learning. Environmental education, from an ITK standpoint, is not confined to theoretical understanding but involves transforming consciousness. Learners become co-creators of sustainable futures through reflection, action, and ethical self-regulation. Such training integrates science, ethics, and spirituality—empowering educators to translate ecological wisdom into practical decision-making frameworks.

5. Philosophical Reflections: Tagore, Gandhi, Aurobindo and Comparative Insights

Rabindranath Tagore’s ecological vision blends humanism and spiritual cosmology. His essays and poetry, particularly in *The Religion of Man* (1931) and *Gitanjali* (1912), depict nature as a living presence in which human freedom unfolds. Tagore’s humanism is not anthropocentric but relational—humans realize themselves through communion with the natural world. His idea of the “Universal Man” transcends self-centred individualism and aligns with the Upanishadic sense of unity.

Tagore’s eco-poetry celebrates the sacredness of everyday life. The seasons, rivers, and forests in *Gitanjali* are not metaphors but embodiments of divine immanence. His concept of education at Santiniketan is itself ecological: open-air learning under trees, integrating arts and sciences with moral sensibility. This anticipates the modern discourse on eco-pedagogy, which links aesthetic appreciation with environmental responsibility (Sen, 2016).

While M.K. Gandhi’s concept of trusteeship is a fundamental part of economic and moral imperatives. It emerged through his speeches, writings in publications like *Harijan* (1947) and various collected works reflecting the idea of Trusteeship. It represents a unique approach to wealth, property and social responsibility. He advocated trusteeship as a voluntary, self-regulated approach. It is a path to transformation. By embracing trusteeship, individuals can align their personal values with their responsibilities and contribute to a more just and equitable society. Gandhi’s thoughts on trusteeship reflect his commitment to ethical living, social justice, and the responsible use of resources. His concept of trusteeship continues to inspire discussions on economic fairness, social responsibility, and sustainable development. In fact, economic behaviour determines how a society treats the earth; therefore, any discussion of environmental values must include economically driven decisions.

On the other hand, Sri Aurobindo, in *The Life Divine* (1939) and *Essays on the Gita* (1922), envisioned evolution as the progressive manifestation of consciousness in matter. His philosophy of integral yoga unites spirit and nature through an ascending order of realization. For Aurobindo, ecological renewal is inseparable from spiritual evolution. Humanity, as the conscious intermediary, bears the responsibility of transforming matter into higher consciousness—a metaphysical ecological task.

Comparatively, Western eco-philosophy—from Heidegger’s “dwelling” (1971) to Arne Naess’s deep ecology—shares the perception that modernity’s alienation from nature stems from loss of Being. Heidegger’s critique of technological “enframing” parallels Aurobindo’s warning against mechanical materialism. Both thinkers call for a return to authenticity through meditative attunement with nature’s rhythm. Again, “enframing” referred to as a double-edged sword, on one hand, it provides immense power and control, on the other, it risks making us forget other essential aspects of reality and our relationship to the cosmos. Aurobindo uses the concept of poiesis—the Greek concept for making or creation—to describe the spiritual process that reveals higher truth. He connects the act of poiesis to the broader theory of creative evolution, the universe as an expression of delight, or Ananda, and the creation is the cosmic Lila, or divine play. The ultimate aim of Lila

is not just art for art's sake, but the spiritual growth of humanity. This requires humans to subordinate their ego and hegemony over their surroundings to the service of the Divine, making their cohabitation on this planet an offering and a means for spiritual experience.

Tagore's, Gandhi's, and Aurobindo's ecological humanism together present a philosophy of renewal: Tagore emphasizes aesthetic communion with nature, Gandhi's efforts to spiritualize economics, and Aurobindo stresses the spiritual transformation of the human. Their synthesis bridges ethical action (karma) and cosmic participation (ṛta). This approach surpasses the utilitarian environmentalism of modernity by grounding ecology in consciousness.

In the context of literary comparison, Tagore's poems may be read alongside Wordsworth's Tintern Abbey (1798), both celebrating nature's moral power. Yet, Tagore's sensibility is more cosmocentric—his river and tree are not symbols but living divinities. Likewise, Gandhi drew a wide range of literary and philosophical sources, merging ideas from spiritual texts such as the Isha Upanishad, the Bhagavad Gita, from literary figures like John Ruskin (Unto This Last), Leo Tolstoy (The Kingdom of God is Within You), and Andrew Carnegie (Gospel of Wealth), exemplifying a forceful synthesis of different traditions. Similarly, Aurobindo's evolutionary cosmology resonates with Teilhard de Chardin's *The Phenomenon of Man* (1955), seeking spiritual teleology in evolution.

The Indian ecosophical approach, thus, offers a model of participatory ontology—humans as co-evolving elements of the cosmic process. In contrast, the modern ecological crisis reflects adharma, the disharmony between technological expansion and moral restraint. Re-establishing ṛta requires not only policy change but spiritual reawakening.

6. Contemporary Relevance

Ancient seers valued the environment and cosmic harmony. Reciting the 'Shanti Mantra,' they emphasized the importance of interconnected natural forces and regions. The prayer calls for harmony among territories, waters, plants, trees, natural energies, and creatures to maintain peace everywhere. The mantra takes about the concord with the universe-

“Peace of sky, peace of mid-region, peace of earth, peace of waters, peace of plants, peace of trees, peace of all-gods, peace of Brahman, peace of universe, peace of peace; May that peace come to me!”

The Vedic perspective on coexistence with the environment was not merely physical but encompassed a broader and more comprehensive scope. The people of ancient India aspired to live with a goal attainable solely if the climate remained unpolluted, clean, and tranquil.

Indian ecological wisdom aligns seamlessly with the United Nations' Sustainable Development Goals (SDGs), especially on climate action and life on land. By integrating dharma-based ethics into policy and education, sustainability becomes a moral pursuit rather than an administrative measure. Reinstating ecological balance thus demands the renewal of human consciousness toward harmony, restraint, and compassion for all species.

7. Conclusion

The dialogue between Indian and Western ecological philosophy reveals a shared understanding: that human destiny is intertwined with the fate of the Earth. However, Indian thought deepens this insight by interpreting ecology as participation in ṛta—a rhythm that sustains the cosmos. Humanity's duty (dharma) is not merely stewardship but alignment with this rhythm through conscious action.

Philosophically, this involves overcoming the dualism between humans and nature. The Indian worldview, as reflected in the Upanishads and the classical works of Tagore, Gandhi, and Aurobindo, redefines ethics as ontological harmony. Practically, it means fostering an education system that nurtures inner awareness alongside environmental knowledge. Only when humanity acts from self-knowledge can sustainable living become natural behaviour rather than an imposed obligation.

In a time of ecological crisis, the call of ṛta invites a spiritual awakening. To act in harmony with the cosmic order is the essence of human responsibility—toward all species and the planet itself. Such an ethic transforms ecology from an external science into an inner discipline—a renewal of culture and spirit in its true essence. Lastly, Jane Goodall, the primatologist and anthropologist, in an exclusive interview, left us to ponder with her last words, the universally appreciated legacy of conservation and care that, as humans, we must take charge of. She stated, “Everyone has a role, even if you haven't discovered it. Your life matters, and each day you make a difference—choose what kind. We're part of nature, dependent on it for essentials. As ecosystems decline and the climate worsens, we must act responsibly to improve the world for current and future generations. Don't lose hope; it keeps us motivated and connected to our purpose.”

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