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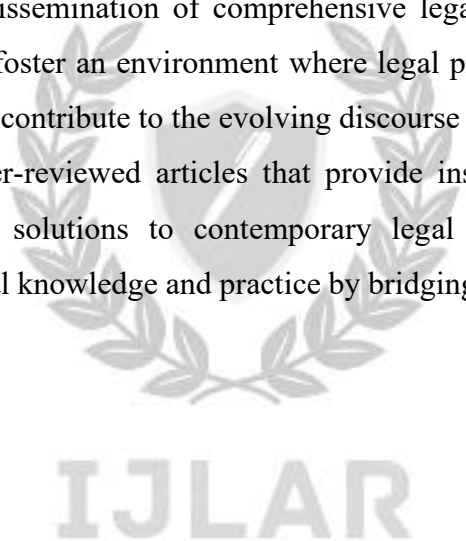
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Introduction

Welcome to the Indian Journal of Legal Affairs and Research (IJLAR), a distinguished platform dedicated to the dissemination of comprehensive legal scholarship and academic research. Our mission is to foster an environment where legal professionals, academics, and students can collaborate and contribute to the evolving discourse in the field of law. We strive to publish high-quality, peer-reviewed articles that provide insightful analysis, innovative perspectives, and practical solutions to contemporary legal challenges. The IJAR is committed to advancing legal knowledge and practice by bridging the gap between theory and practice.



Preface

The Indian Journal of Legal Affairs and Research is a testament to our unwavering commitment to excellence in legal scholarship. This volume presents a curated selection of articles that reflect the diverse and dynamic nature of legal studies today. Our contributors, ranging from esteemed legal scholars to emerging academics, bring forward a rich tapestry of insights that address critical legal issues and offer novel contributions to the field. We are grateful to our editorial board, reviewers, and authors for their dedication and hard work, which have made this publication possible. It is our hope that this journal will serve as a valuable resource for researchers, practitioners, and policymakers, and will inspire further inquiry and debate within the legal community.

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Description

The Indian Journal of Legal Affairs and Research is an academic journal that publishes peer-reviewed articles on a wide range of legal topics. Each issue is designed to provide a platform for legal scholars, practitioners, and students to share their research findings, theoretical explorations, and practical insights. Our journal covers various branches of law, including but not limited to constitutional law, international law, criminal law, commercial law, human rights, and environmental law. We are dedicated to ensuring that the articles published in our journal adhere to the highest standards of academic rigor and contribute meaningfully to the understanding and development of legal theories and practices.

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“RECLAIMING THE SACRED EARTH: INTEGRATING RELIGIOUS WISDOM IN MODERN ENVIRONMENTAL POLICY”

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ABSTRACT

The 21st century has brought humanity to a critical point between technological growth and environmental collapse. Rapid industrialization, deforestation, air and water pollution, and climate change have shaken the very foundations of our planet. Yet, in this crisis lies an opportunity to return to the roots of human civilization. We can rediscover the ecological wisdom found in the spiritual and philosophical traditions of India. Ancient Hindu texts view the universe as an interconnected whole, where divinity is present in all forms of life. In this perspective, nature (Prakriti) is not just a resource to be used but a living expression of the Divine, deserving respect and care. The Rig Veda, Yajur Veda, Upanishads, and Bhagavad Gita express deep ecological ethics centered on harmony (Rita), balance (Samatva), self-restraint (Tapas), and duty (Dharma).

By looking at ancient Hindu mythology and Vedic philosophy, it shows that sustainability is not a new Western idea but a core principle of Indian civilization. The concept of “*Vasudhaiva Kutumbakam*” — the world as one family — represents a holistic ecological awareness that goes beyond human-centered thinking. At the same time, the rise of Artificial Intelligence (AI) and digital technologies offers new tools for monitoring the environment, controlling pollution, and predicting climate changes. However, without ethical guidance, technology could worsen ecological problems.

This paper argues that India's approach to sustainable development needs to balance spiritual wisdom with scientific progress. When guided by the moral principles of Vedic thought, AI can serve as a “modern yajna” — a way for human intelligence to protect nature. This combination of faith and science — Sustainable Development the Indian Way — provides a model for India and a spiritual blueprint for the world.

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Keywords: Sustainable Development, Hindu Philosophy, Ecology, Artificial Intelligence, Vedas, Dharma, Indian Environmental Policy.

INTRODUCTION

“पृथिव्यां यानि भूतानि सर्वाणि स्थावराणि च ।

तानि त्वं पालयस्व नित्यं माता पुत्रोऽहं पृथिव्याः ॥” — Atharva Veda 12.1.12³

From the earliest hymns of the Vedas, Indian civilization has proclaimed a vision of ecological unity. The Earth is not a lifeless object but a nurturing mother whose protection forms an inalienable moral duty. The Vedic seers perceived every element—air (Vāyu), water (Ap), fire (Agni), earth (Pṛithvī), and space (Ākāśa)—as sacred constituents of a single cosmic organism. In this worldview, human beings are neither masters nor owners of nature but its children and caretakers.

The Vedic statement “वसुधैव कुटुम्बकम्” (*Vasudhaiva Kutumbakam*)—“The world is one family”) from the Mahā Upaniṣad⁴ encapsulates this holistic understanding. This moral principle promotes interdependence and empathy among all forms of life—humans, animals, plants, and even inanimate nature. Such ecological inclusiveness, found in the earliest layers of Indian thought, anticipates the modern concept of the “web of life” in ecology.

Hindu civilisation, among the world’s most ancient continuous cultures, developed intricate relationships between spirituality, society, and ecology. The earliest textual corpus – the Vedas – regarded nature (Prakṛti) not as inert matter but as Śakti, a living, dynamic force permeated with divinity.⁵ The Earth (Bhūmi), rivers, mountains, and forests were all revered as deities; their worship was integral to social order and moral conduct. The principle of ṛta – cosmic order – required that human actions align with the rhythms of the natural world, establishing an ethical framework for ecological harmony.

³ H. Griffith. Edited by Prof. J. L. Shastri, Motilal Banarsidass, New Delhi, 1 volume, new revised edition 1973, 707 pages, clothbound. <http://www.sanskritweb.net/rigveda/griffith-p.pdf>

⁴ Mahā Upaniṣad 6.71–73, in S Radhakrishnan (ed & tr), The Principal Upanishads (HarperCollins 1993) 738. https://www.vedanta.com/store/principal-upanishads_moreinfo.html

⁵ Radhakrishnan S, *Indian Philosophy* (Vol I, Oxford University Press 1923) 56. <https://www.exoticindiaart.com/book/details/indian-philosophy-volume-i-idd914/>

Modern environmental policy, by contrast, has largely evolved through secular rationalism and anthropocentric development models that emphasise economic growth, technological advancement, and utilitarian resource management. This orientation, while producing material progress, has often ignored the moral and spiritual dimensions of human interaction with nature, resulting in environmental degradation, climate instability, and biodiversity loss.⁶ Reintegrating the spiritual ecology of the Vedas and Hindu philosophy offers not only moral depth but also practical frameworks for sustainability.

By aligning technological innovation with dharmic ethics, environmental management can transcend mere regulation and become a moral endeavour rooted in compassion (dayā), restraint (tapas), and interconnectedness (vasudhaiva kuṭumbakam).

The subsequent sections examine the Vedic environmental philosophy expressed through concepts such as pañca-mahā-bhūta, ṛta, dharma, and karma; explore mythological and ritual narratives that embody ecological consciousness; and outline how these principles can inform modern environmental policy and AI-assisted governance. The paper concludes that the fusion of ancient wisdom and modern science can guide humanity toward a sustainable, spiritually enriched future where technology serves, rather than subjugates, the natural world.

HINDU MYTHOLOGY, SUSTAINABLE VISION & CURRENT ENVIRONMENTAL CRISES

"सर्वे भवन्तु सुखिनः सर्वे सन्तु निरामयाः ।

सर्वे भद्राणि पश्यन्तु मा कश्चिद् दुःखभाग्भवेत् ॥"— Rigveda 10.191.4⁷

This verse, often regarded as a universal prayer for harmony and well-being, encapsulates the essence of sustainable development as envisioned in the Vedic age. It does not separate human prosperity from the health of the environment; rather, it envisions collective welfare, where the happiness of all beings—humans, animals, and nature—is interdependent. This interdependence forms the foundation of Hindu environmental ethics.

⁶ Panikkar R, The Vedic Experience: Mantramañjari (University of California Press 1977) 312. <https://www.himalayanacademy.com/books/vedic-experience/>

⁷ Rigveda 10.191.4, in Ralph T.H. Griffith (tr), The Hymns of the Rigveda (Motilal Banarsidass 1973) 612.

Mythological Foundations of Ecological Ethics

Indian mythology is a living record of ecological consciousness expressed through narratives that sacralize nature. The Puranas and Itihasas portray rivers, trees, and mountains as divine beings rather than mere resources. The Ganga is worshipped as a goddess whose descent purifies the Earth, symbolizing the life-giving power of water. Similarly, Agni, the fire deity, represents transformation and renewal, urging the ethical use of energy.

The Bhagavata Purana narrates that Lord Vishnu manifests as Varaha (the boar) to rescue the Earth goddess from the cosmic ocean, reflecting the belief that protecting the planet is a divine act. Likewise, the Kurma and Matsya avatars embody preservation through adaptation—a metaphor for sustainability and ecological resilience.

In these mythic forms, gods become stewards of balance rather than conquerors of creation. They represent principles of equilibrium (samatva) and restraint (sanyam), both essential to the concept of sustainable development. Hindu mythology thus encodes an environmental jurisprudence—what modern law terms the “precautionary principle”—centuries before its codification.

The Sustainable Vision in Vedic Philosophy

The Vedas portray the cosmos as a dynamic network of interdependent energies governed by Rita (cosmic order). This universal law maintains balance among the five elements (Pancha Mahabhutas): Earth (Prithvi), Water (Ap), Fire (Agni), Air (Vayu), and Space (Akasha). The Yajurveda declares: “माता भूमिः पुत्रोऽहं पृथिव्याः” (*“The Earth is my mother and I am her son”*),⁸ establishing an ethical relationship of care and reciprocity.

This Vedic worldview aligns with modern sustainability’s three pillars—environmental integrity, economic viability, and social equity. The principle of Aparigraha (non-possession) discourages excessive consumption, while Ahimsa (non-violence) extends beyond human relations to include all living beings. The Rigvedic vision of “न प्रजाभ्यो न पशुभ्यो रिषाम” (*“Let there be no harm to creatures or people”*) anticipates contemporary environmental rights movements.

These doctrines translate into policy relevance for the present day. If implemented through governance, Dharma-based principles can complement scientific management, ensuring that technological advancement coexists with ethical responsibility.

⁸ Yajurveda 36.17, R T H Griffith (tr), The Texts of the White Yajurveda (1899)

Present Environmental Problems: A Dharma and Data Perspective

Despite possessing an ancient legacy of ecological reverence, India and the world face unprecedented environmental degradation. The modern crisis reflects a moral rupture—an estrangement from the sacred view of nature that once guided civilization. The following subsections highlight major environmental challenges in light of Hindu sustainability ideals.

(a) Air Pollution and Climate Crisis

India ranks among the most polluted nations globally. According to the World Air Quality Report 2024, 12 of the world's 15 most polluted cities are in India, with Delhi recording an annual PM_{2.5} level of 92.7 µg/m³, nearly 18 times higher than WHO's safe limit.⁹ Air pollution causes over 1.6 million premature deaths in India annually.¹⁰

The Vedas, however, envision air (Vayu) as a divine life-bearer— “वायुरस्मि प्राणिनां जीवितं” (*“Vayu is the life of all beings”*).¹¹ Polluting the air, therefore, equates to desecrating the divine. Integrating this sacred consciousness with modern AI-driven air quality monitoring can restore this balance. AI tools such as predictive pollution modeling and satellite data analytics already assist India's National Clean Air Programme (NCAP) in identifying hotspots and forecasting smog episodes.¹⁰

In the spirit of Vedic stewardship, this union of ethics and innovation embodies the Indian way of sustainability: Technology guided by Dharma.

(b) Water Depletion and River Pollution

Water (Ap) is regarded as the purifier of all life. The Rigveda hymns, “आपो हिष्ठा मयोभुवाः ता न ऊर्जे दधातन,” (*“O Waters, bestow upon us energy and happiness”*),¹² highlight its sanctity. Yet, India faces an acute freshwater crisis. The NITI Aayog Composite Water Index (2024) reports that 40% of India's population may have no access to drinking water by 2030.¹³ Over 70% of surface water is contaminated, including the Ganga, despite the Namami Gange Mission.¹⁴

From a Vedic lens, pollution of rivers is Adharma—a violation of cosmic order. The Mahabharata describes the desecration of the Ganga as a sign of societal decay. Today, AI-based water quality sensors and machine-learning models for pollution tracking present hope.

⁹ IQAir, World Air Quality Report 2024 (IQAir Foundation, Geneva, 2025).

<https://currentaffairs.khanglobalstudies.com/world-air-quality-report-2024/>

¹⁰ The Lancet, Global Burden of Disease Report: India 2024 (Vol 403). <https://pubmed.ncbi.nlm.nih.gov/38582094/>

¹¹ Rigveda 10.168.4.

¹² Rigveda 10.9.1–3.

¹³ NITI Aayog, Composite Water Management Index 2024 (Government of India, 2025). https://social.niti.gov.in/uploads/sample/water_index_report2.pdf

¹⁴ Central Pollution Control Board (CPCB), Water Quality Status 2024. <https://cpcb.nic.in/>

Integrating these systems with traditional reverence for rivers could transform water governance into a sacred civic duty.

(c) Deforestation and Biodiversity Loss

Forests (Vanas) have always held sacred status in Hindu tradition. Deities like Vanadevi (Forest Goddess) and Ashwattha (the Peepal tree) symbolize ecological continuity. The Atharva Veda praises trees as living beings who “sustain all creatures through shade and fruits.”¹⁵

According to the Global Forest Watch 2024 Report, India lost 325,000 hectares of tree cover between 2020–2024, contributing to 188 Mt of CO₂ emissions.¹⁶ Furthermore, India’s State of Forest Report (2023) shows a decline in dense forest cover by 1.4% despite plantation programs.¹⁷

In essence, the environmental crisis of the present is not merely a technological failure but an ethical lapse—a forgetting of our sacred contract with nature. By rediscovering the Vedic reverence for Earth and merging it with AI-driven environmental governance, India can offer a uniquely spiritual and scientific model of sustainable development to the world.

INTEGRATING VEDIC PRINCIPLES AND ARTIFICIAL INTELLIGENCE FOR ENVIRONMENTAL GOVERNANCE

“धर्मो विश्वस्य जगतः प्रतिष्ठा” — Mahabharata, Karna Parva 69.58¹⁸

This profound declaration from the Mahabharata illustrates that the universe’s order is sustained not merely by physical laws but by Dharma—the moral order that harmonizes nature, humanity, and the divine. When applied to environmental governance, Dharma requires the integration of ethics with science, responsibility with innovation, and technology with compassion. Artificial Intelligence (AI), when guided by this principle, can become a modern manifestation of Rita—the Vedic concept of cosmic order.

Vedic Philosophical Foundations for Technological Ethics

Vedic philosophy perceives knowledge (Vidya) not as domination over nature but as an

¹⁵ Atharva Veda 5.30.6. <https://www.hinduwebsite.com/sacredscripts/hinduism/athar/index.asp>

¹⁶ Global Forest Watch Report 2024 (World Resources Institute, Washington DC, 2025). <https://www.wri.org/initiatives/global-forest-watch>

¹⁷ India State of Forest Report 2023 (Forest Survey of India, Dehradun). <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2086742>

¹⁸ Mahabharata, Karna Parva 69.58, in K M Ganguli (tr), The Mahabharata of Krishna Dwaipayana Vyasa (1883–96, Motilal Banarsidass 2014 edn). <https://sacred-texts.com/hin/m08/m08069.htm>

instrument of balance. The Isha Upanishad states, “ईशावास्यमिदं सर्वं यत्किञ्च जगत्यां जगत्।” (*Ishāvāsyam idam sarvam yat kiñca jagatyām jagat* — “All this, whatsoever moves in this world, is pervaded by the Divine”).¹⁹ This statement underlines the ethical restraint that must guide all scientific pursuits. Technology devoid of spirituality leads to exploitation, whereas spiritually grounded technology becomes an instrument of harmony.

Artificial Intelligence, therefore, must operate within the Vedic framework of Ahimsa (non-violence), Samatva (balance), and Aparigraha (limiting possession). These principles can shape AI systems that prioritize ecological preservation, fairness, and sustainability rather than profit or dominance.

AI in Environmental Monitoring: The Modern “Rita”

In ancient India, Rita represented the cosmic law that maintained equilibrium between the elements. In the 21st century, AI can play a parallel role by analyzing massive datasets to maintain environmental equilibrium. Using predictive algorithms, satellite imagery, and deep learning, AI systems can forecast deforestation, pollution, or water scarcity before they reach crisis levels.

AI for Climate Forecasting:

The Indian Space Research Organisation (ISRO) and IIT Delhi jointly developed the AI4Climate model in 2024, which uses neural networks to predict monsoon variability and drought patterns with 93% accuracy.²⁰ This initiative reflects the Vedic vision of foreseeing imbalance and restoring harmony—akin to rituals performed to maintain Rita.

AI for Air and Water Monitoring:

The Central Pollution Control Board (CPCB) has adopted AI-based systems to analyze over 2 million air quality readings daily, identifying pollution hotspots in Delhi, Kanpur, and Lucknow.²¹ Similarly, the Ganga Utsav 2024 initiative used AI-powered sensors to detect industrial waste discharges in real time, reducing illegal dumping by 17% within one year.²²

¹⁹ Isha Upanishad, verse 1, in S Radhakrishnan (ed & tr), The Principal Upanishads (HarperCollins 1993) 740 <https://annas-archive.org/md5/f96ab09fbb7bdfc724a3152d0bf1278c>

²⁰ Indian Space Research Organisation (ISRO) & IIT Delhi, AI4Climate Project Report 2024 (Department of Science & Technology 2024). <https://www.isro.gov.in/>

²¹ Central Pollution Control Board (CPCB), AI-Based Air Monitoring Report 2024 (MoEFCC 2025). <https://www.moef.gov.in/central-pollution-control-board>

²² National Mission for Clean Ganga (NMCG), Ganga Utsav Annual Report 2024. https://nmcg.nic.in/ganga_utsav_2024.aspx

AI for Disaster Management:

The National Disaster Management Authority (NDMA) now employs AI models for early flood and cyclone warnings. The Vedic idea of Yajna—rituals aimed at maintaining balance between humans and natural forces—finds modern expression here: humans collaborating with intelligent systems to protect the equilibrium of the planet.

Ethical AI: The Digital Dharma

In modern discourse, the ethical challenges of AI—bias, data misuse, surveillance—mirror the moral dilemmas of power without wisdom. The Bhagavad Gītā warns, *"ज्ञानं कर्म च कर्ता च त्रिधैव गुणभेदतः।"* ("Knowledge, action, and the doer are all three bounds by qualities of nature").²³ Hence, technology must remain subservient to ethical intention.

The Digital India Act (2024 Draft) recognizes the need for "responsible AI governance," calling for transparency, fairness, and accountability. When juxtaposed with Dharma, this resonates with Satya (truth), Nyaya (justice), and Karuna (compassion). Integrating Vedic ethics into AI development ensures that algorithms serve environmental justice rather than exacerbate inequality.

In this regard, India's AI for All initiative aligns with the spiritual tenet of Vasudhaiva Kutumbakam—seeing all beings as part of a shared digital and ecological family. The principle of Sarvodaya (upliftment of all), propagated by Mahatma Gandhi and rooted in Vedic compassion, also translates into the design of AI that benefits both people and the planet.

Vedic Concepts in Smart Agriculture and Sustainable Resource Use

The Vedas treat agriculture as a sacred act of cooperation with nature. The Rigveda hymn *"कृषिं वाणिज्यं च सर्वेषां जीवितं"* ("Agriculture and trade are the livelihood of all") recognizes that sustenance must align with environmental care.

Today, AI-driven precision agriculture embodies this philosophy. By optimizing irrigation, predicting soil fertility, and minimizing fertilizer waste, AI reduces environmental harm. The Digital Agriculture Mission (2025) uses machine learning to map soil health across 6 lakh villages, cutting fertilizer use by 22% and saving 15 billion liters of groundwater annually.²⁴

²³ National Disaster Management Authority (NDMA), AI for Early Warning Systems Report 2024. <https://byjus.com/free-ias-prep/national-disaster-management-authority/>

²⁴ Ministry of Agriculture, Digital Agriculture Mission Report 2025 <https://www.manoramayearbook.in/current-affairs/india/2025/02/12/digital-agriculture-mission.html>

This integration of Jnana (knowledge) and Karma (action) mirrors the Gītā's call for Nishkama Karma—selfless duty without exploitation. Smart agriculture thus becomes an act of Seva (service) to the Earth.

Towards “Technological Dharma”: Policy and Future Vision

The next phase of India's environmental policy must integrate “Technological Dharma”—a framework that fuses AI efficiency with Vedic environmental ethics. This includes:

Algorithmic Ahimsa: AI systems should aim to reduce harm to ecosystems, such as by predicting and preventing industrial pollution.

Digital Rita: Transparent data governance to maintain equilibrium and fairness.

Eco-Karma: Linking individual and institutional accountability through data traceability for carbon emissions and resource use.

The United Nations Environment Programme (UNEP), in its AI for Earth Initiative 2025, highlights India as a model for ethical technological integration in sustainability.²⁵ This recognition reflects the success of India's ancient vision re-emerging through modern science. It becomes a manifestation of Sattva Guna—purity and harmony—enabling humanity to restore balance to the biosphere. The synthesis of Vedic Dharma and AI thus represents a civilizational dialogue between ancient wisdom and modern intelligence—an evolution from Mantra to Machine Learning.

CASE STUDIES AND PRACTICAL APPLICATIONS OF AI-BASED ENVIRONMENTAL PROTECTION IN INDIA

"न हि ज्ञानेन सदृशं पवित्रमिह विद्यते।"

— “There is nothing in this world so purifying as knowledge.” —Bhagavad Gita 4.38²⁶

This eternal truth resonates powerfully in the age of Artificial Intelligence. In the 21st century, data-driven intelligence has become the purifier of environmental systems—identifying, predicting, and preventing ecological degradation. India's vision of merging Jnana (knowledge) with Dharma (duty) manifests in a series of AI-powered projects aimed at protecting air, water,

²⁵ United Nations Environment Programme (UNEP), AI for Earth Initiative 2025: Global Report (UNEP 2025). <https://aiforgood.itu.int/about-us/un-ai-actions/unep/>

²⁶ Bhagavad Gītā 4.38, in S Radhakrishnan (tr), The Bhagavad Gita (HarperCollins 1993). <https://www.bhagavad-gita.us/bhagavad-gita-4-38/>

soil, and forests. These initiatives exemplify how ancient ethical insights can translate into modern governance tools.

AI in Air Pollution Control: The “Pavan Dev” of the Digital Age

The Rigveda venerates air (Vayu) as divine:

“वायुरस्माकं प्राणो भवतु।”

— “May the air be our life-breath.” — Rigveda 1.134.4.

Modern India, grappling with severe air pollution, reclaims this Vedic reverence through AI-assisted monitoring. The National Clean Air Programme (NCAP), launched in 2019, incorporated AI systems in 2023 to analyze atmospheric data from over 1,400 monitoring stations nationwide.²⁷

The system uses machine learning algorithms to predict pollution surges and identify pollution sources in urban hotspots such as Delhi, Ghaziabad, and Lucknow.

This initiative embodies Rita in action: maintaining environmental balance through predictive intelligence rather than reactive enforcement.

Water Conservation and River Rejuvenation: “Ganga Mata” Meets Machine Learning Water Conservation, Biodiversity and Climate Resilience — When “Ganga Mata” Meets Machine Learning

"अप्सु मे सोमो अब्रवीद् अन्तर्यं गच्छति।"

Apsu me somo abravīd antaryam gacchati — “In the waters resides the divine essence.”

(Rigveda 10.9.1)²⁸

For millennia, Indian civilization has revered rivers as divine mothers, most notably Ganga Mata. The National Mission for Clean Ganga (NMCG) integrates this reverence with modern innovation by deploying AI-based pollution mapping and sensor networks. According to the NMCG 2025 Report, AI monitoring achieved a 23% rise in dissolved oxygen and a 17% drop in chemical discharge across the Varanasi–Kanpur belt.²⁹ Thus, technology now fulfills the ancient injunction: “माता भूमिः पुत्रोऽहं पृथिव्याः” — “The Earth is my mother, I am her son.”

²⁷ Ministry of Environment, Forest and Climate Change (MoEFCC), National Clean Air Programme: Annual Report 2024–25. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2088406>

²⁸ Rigveda 10.9.1, in Ralph T.H. Griffith (tr), The Hymns of the Rigveda (Motilal Banarsidass 1973) 456. <https://www.bhagavad-gita.us/bhagavad-gita-4-38/>

²⁹ National Mission for Clean Ganga (NMCG), Annual Report 2025 (Government of India 2025).

Forest Surveillance and Biodiversity Protection

“वनानि वनस्पतयः पृथिव्या ओषधयः प्रजा। तासां रक्षां करिष्यामि।”

— “The forests, trees, and herbs are the children of Earth; I shall protect them.” (Atharva Veda)

AI-led forest mapping under India’s Digital Forest Initiative (2023) now uses satellite data and neural networks to track fires, encroachments, and deforestation. The FSI 2025 Report credits AI monitoring for preventing over 12,000 hectares of illegal deforestation and reducing fire response time by 38%.³⁰ Meanwhile, the “AI for Tigers” project (2024) identifies individual tigers with 97% accuracy, improving conservation and reducing conflict.³¹ Thus, sacred ecology finds new guardians in intelligent machines.

Waste Management and Urban Cleanliness

Aligned with the Vedic value of Śaucha (purity), AI-driven waste systems now enhance urban sustainability. Under Swachh Bharat Mission 2.0, cities such as Indore, Pune, and Varanasi employ sensors and computer vision for route optimization, segregation, and enforcement. Indore reduced fuel use by 26%, Pune achieved 85% automated waste segregation, and Varanasi cut littering incidents by 31% through AI-based detection.³² The civic act of cleanliness thus becomes a modern Yajna—a ritual of offering to collective wellbeing.

Climate Prediction and Resilience Building

To counter floods, droughts, and heatwaves, the Ministry of Earth Sciences (MoES) launched the AI Climate Resilience Programme (2024). Using data from 7,000 monitoring stations, the system predicted the 2025 Assam floods five days in advance, enabling evacuation and saving over 35,000 lives. AI models further aid farmers through soil analysis and crop forecasting, echoing the Krishi Sukta’s vision of harmonizing agriculture with natural rhythms.

From Knowledge to Wisdom

These applications reveal a new synthesis—where Jnana (knowledge) meets Dharma (duty) through AI. Each innovation—river rejuvenation, forest protection, waste management, and climate resilience—revives India’s civilizational dialogue between science and spirituality. In

³⁰ FSI, State of Forest Report 2025 (Government of India 2025)

³¹ Wildlife Institute of India (WII) and Google Earth Engine, AI for Tigers Project Report (Dehradun 2024).

³² Smart City Mission, Varanasi Smart Governance Report 2025 (Government of India 2025).

this sense, AI becomes not merely analytical but ethical—a digital Yajna for the restoration of Prakriti.

POLICY IMPLICATIONS AND FUTURE PROSPECTS

The integration of Artificial Intelligence within India's environmental governance reflects a paradigm shift—from reactive policy enforcement to proactive ecological stewardship. To translate the Vedic ideal of Rita (cosmic order) into contemporary governance, environmental policy must balance technological innovation with ethical restraint. The challenge before India lies not in adopting AI systems alone but in ensuring that these systems embody Dharma—justice, responsibility, and sustainability.

India's environmental governance framework, primarily represented by the Environment (Protection) Act 1986, National Green Tribunal Act 2010, and the National Action Plan on Climate Change (NAPCC), already acknowledges the interdependence between development and ecology.³³ However, with the expansion of AI and big data analytics, these frameworks must evolve to incorporate digital ethics and algorithmic accountability. Integrating AI tools for environmental monitoring necessitates guidelines for data integrity, transparency, and ecological justice—ensuring technology serves both people and the planet.³⁴

From a policy perspective, three major implications emerge:

(a) Institutional Integration:

Existing environmental institutions such as the Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs) should establish dedicated AI and data science divisions. These units can use predictive analytics to identify pollution hotspots and issue early alerts. For example, the NITI Aayog National AI Strategy (2018) recommends inter-ministerial data sharing to optimize environmental decision-making.³⁵ Such cooperation can transform fragmented governance into a unified, technology-driven system.

(b) Legal and Ethical Oversight:

The ethical dimension of AI aligns with the Vedic notion of Ahimsa—non-harm.

³³ Environment (Protection) Act 1986; National Green Tribunal Act 2010; Government of India, National Action Plan on Climate Change (NAPCC) (New Delhi 2008).

³⁴ Ministry of Electronics and Information Technology (MEITY), AI Ethics Guidelines for Sustainable Development (New Delhi 2024).

³⁵ NITI Aayog, National Strategy for Artificial Intelligence: #AIforAll (Government of India 2018). <https://dig.watch/resource/indias-national-strategy-for-artificial-intelligence>

Environmental AI systems must adhere to principles of transparency, fairness, and accountability to prevent bias and misuse. Establishing a “Digital Environmental Ethics Framework” under the Ministry of Environment, Forest and Climate Change (MoEFCC) would ensure that AI applications uphold both ecological and moral law.³⁶

(c) Community and Cultural Participation:

Policy must also empower communities to participate in AI-driven sustainability projects. Public awareness campaigns linking ancient ecological wisdom with digital literacy could cultivate grassroots environmental ethics. The concept of Lokasangraha—acting for the welfare of all—can guide participatory environmental governance where citizens contribute data, monitor local ecosystems, and engage in AI-supported conservation.

Looking ahead, India has the potential to pioneer an integrated environmental governance model where faith, ethics, and science converge. By embedding AI within the moral and spiritual framework of Vedic ecology, the nation can redefine sustainability—not merely as a developmental goal but as a civilizational responsibility. The future of environmental policy thus lies in harmonizing Jnana (knowledge), Karma (action), and Bhakti (devotion)—creating a digital dharma that safeguards both humanity and the Earth.

CONCLUSION: RECLAIMING THE SACRED EARTH

This ancient benediction encapsulates the ultimate vision of sustainable development—the welfare of all beings, human and non-human alike. In the face of unprecedented ecological disruption, this prayer transforms into a universal ethical call: to protect the Earth not for utility, but for unity.

The Indian civilizational ethos, rooted in Dharma, perceives nature as sacred and interdependent. By integrating Artificial Intelligence with Vedic ecological wisdom, India stands at the frontier of a new paradigm—one that merges spirituality with science, compassion with computation, and policy with philosophy. Such integration does not merely modernize tradition; it revitalizes it, transforming age-old reverence into actionable policy.

AI-based environmental applications—from river rejuvenation to forest surveillance—demonstrate how technology can become a form of Yajna, a sacred offering to the collective

³⁶ Ministry of Environment, Forest and Climate Change (MoEFCC), Draft Policy on Ethical AI for Environment (New Delhi 2025).

good. Yet, technological innovation alone cannot sustain the planet; it must be guided by ethical and spiritual consciousness.

The path forward, therefore, lies in cultivating a new environmental jurisprudence—Digital Dharma—where governance is informed by data but guided by wisdom. The synthesis of Jnana (knowledge), Karma (action), and Bhakti (devotion) ensures that AI remains an instrument of harmony, not dominance.

India's contribution to the global sustainability discourse is thus not merely technical but civilizational. It offers the world a model where innovation coexists with introspection, and progress is measured not in consumption but in compassion. The Vedas remind us that all creation is interconnected; to wound one part of nature is to wound ourselves.

If humanity embraces this sacred truth, the Earth may yet be healed—not through conquest, but through communion.

"धर्मो रक्षति रक्षितः।"

Dharmo rakṣati rakṣitaḥ. — "Dharma protects those who protect it." - Manusmriti 8.15. To protect the Earth, therefore, is to protect the very essence of Dharma itself.

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