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Emperor Ashoka: The World's Earliest Environmental Statesman – An Ecological Interpretation of the Ashokan Edicts

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Abstract:
Environmental governance is generally regarded as a modern concept that emerged during the twentieth century in response to industrialization, climate change, biodiversity loss, and ecological degradation. However, archaeological and epigraphic evidence demonstrates that several foundational principles of environmental stewardship were institutionalized more than two millennia ago during the reign of Emperor Ashoka (c. 268–232 BCE). This paper examines Ashoka's inscriptions through the interdisciplinary perspectives of environmental history, ecology, biodiversity conservation, sustainability science, and environmental governance.

Drawing upon the Major Rock Edicts, Pillar Edicts, archaeological evidence, and recent ecological research, this study argues that Ashoka developed one of the earliest state-sponsored environmental policies in world history. His administrative reforms included legal restrictions on animal slaughter, conservation of wildlife, establishment of medicinal plantations for humans and animals, roadside afforestation, water resource development, and promotion of public welfare through ecological infrastructure.

The paper further demonstrates that these policies closely correspond to modern scientific concepts including ecosystem services, One Health, biodiversity conservation, ecological restoration, sustainable development, and climate adaptation. Rather than viewing Ashoka solely as a Buddhist emperor, this research proposes that he should also be recognized as one of the world's earliest environmental statesmen whose ecological philosophy retains remarkable relevance in the Anthropocene.

Keywords: King Ashoka, Mauryan Empire, Environmental History, Ecology, Biodiversity Conservation, Sustainability Science, Environmental Governance, One Health, Climate Adaptation. Carbon sequestration, social ecological services, water conservation, forest management, environmental economics, aquatic ecology.

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1. Introduction

The twenty-first century has witnessed unprecedented environmental challenges. According to the **Intergovernmental Panel on Climate Change (IPCC)**, anthropogenic climate change has accelerated biodiversity loss, increased extreme weather events, and intensified ecological degradation (IPCC, 2023). Simultaneously, the **United Nations Environment Programme (UNEP)** identifies biodiversity decline and ecosystem destruction among the greatest threats to sustainable human development.

Modern environmental governance generally relies upon legal frameworks such as the Convention on Biological Diversity (CBD), Ramsar Convention, Convention on International Trade in Endangered Species (CITES), and the Paris Climate Agreement. These agreements seek to protect biodiversity while balancing human development with ecological sustainability.

Remarkably, several comparable environmental principles appear in the inscriptions of Emperor Ashoka nearly twenty-three centuries earlier.

Following the Kalinga War, Ashoka abandoned aggressive imperial expansion and introduced a comprehensive policy known as **Dhamma**. Although Dhamma has often been interpreted primarily as a moral or religious philosophy, a close reading of the Ashokan inscriptions reveals an equally important environmental dimension. Ashoka repeatedly emphasized compassion toward animals, restrictions on hunting, protection of wildlife, cultivation of medicinal plants, construction of wells, roadside tree plantations, and public welfare infrastructure.

Unlike many ancient rulers whose inscriptions glorified military victories, Ashoka's inscriptions uniquely record governmental responsibility toward both human society and the natural environment.

This paper therefore asks three principal research questions:

1. Can Ashoka's inscriptions be interpreted as an early framework of environmental governance?
2. How do Ashoka's ecological policies compare with contemporary environmental science?
3. What lessons can modern sustainability policy derive from the Mauryan environmental model?

2. Literature Review

The environmental dimension of Ashoka has received comparatively limited scholarly attention.

E. Hultzsch (1925) provided the first comprehensive critical edition of Ashoka's inscriptions in *Corpus Inscriptionum Indicarum*, laying the foundation for modern epigraphic analysis.

Romila Thapar (1961; revised 2012) interpreted Ashoka's Dhamma primarily as an ethical-political doctrine promoting social harmony rather than sectarian Buddhism. She emphasized Ashoka's concern for public welfare, although environmental implications remained secondary.

A. L. Basham (1954) highlighted Ashoka's compassion toward animals and his humanitarian administration but did not analyze these measures from the perspective of ecological science.

Nikam and McKeon (1959) translated the edicts and emphasized their ethical and philosophical dimensions, particularly the concepts of non-violence and moral governance.

Recent interdisciplinary scholarship has increasingly recognized environmental elements within the Ashokan inscriptions. Eco-historical and sustainability studies have argued that Ashoka's policies anticipated modern concepts such as biodiversity conservation, ecosystem management, and ecological

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ethics. Recent reviews describe the edicts as an early blueprint for eco-biological sustainability and environmental governance.

Despite these advances, relatively few studies integrate:

- Archaeology,
- Ecology,
- Conservation biology,
- Climate science,
- Environmental policy, and
- Sustainability studies

into a unified interpretation of the Ashokan inscriptions. This paper seeks to bridge that gap.

3. Research Methodology

This research employs an interdisciplinary methodology combining historical analysis with environmental science.

Primary Sources

The primary evidence consists of:

- Major Rock Edicts
- Minor Rock Edicts
- Major Pillar Edicts
- Minor Pillar Edicts

Published in:

- *Corpus Inscriptionum Indicarum* (Hultzsch)
- Archaeological Survey of India inscriptions

Secondary Sources

Scientific literature consulted includes research relating to:

- Biodiversity conservation
- Restoration ecology
- Urban forestry
- Ecosystem services
- One Health
- Climate adaptation
- Conservation biology
- Modern critical translations

Analytical Framework

Each inscription is examined using five environmental parameters:

1. Ecological objective
2. Government intervention
3. Conservation mechanism

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4. Scientific interpretation
5. Modern environmental equivalent

4. Environmental Philosophy of Ashoka

The environmental philosophy underlying Ashoka's governance differed fundamentally from exploitative imperial models. Rather than treating forests and wildlife as economic commodities, Ashoka considered living organisms to possess intrinsic moral value.

This philosophy is reflected in four recurring principles throughout the inscriptions:

- **Ahimsa (Non-violence)**
- **Karuṇā (Compassion)**
- **Dayā (Mercy)**
- **Sarva-bhūta-hita (Welfare of all living beings)**

Modern ecology similarly recognizes that ecosystem stability depends upon maintaining interactions among plants, animals, microorganisms, and humans rather than privileging one species over another. Ashoka's governance therefore anticipated the ecological principle of interconnectedness.

5. Ecological Analysis of Major Rock Edict I

Original Context

Major Rock Edict I prohibits unnecessary animal sacrifice and significantly reduces animal slaughter within the royal household.

Ashoka states that formerly numerous animals were killed daily in the royal kitchens, but after the promulgation of Dhamma only a very small number—and ultimately none—were to be slaughtered for this purpose.

Historical Interpretation:

Earlier Vedic royal ceremonies frequently involved ritual animal sacrifice. Ashoka replaced this tradition with an ethic of compassion. Importantly, he did not merely preach morality.

He enacted administrative reform. Government kitchens became models of reduced animal consumption. This represents one of the earliest documented examples of environmental policy implemented through executive authority.

Scientific Interpretation:

From the perspective of conservation biology, reducing large-scale killing contributes to protection of wildlife populations, maintenance of food webs, preservation of genetic diversity, reduction of local species decline.

Modern ecological research demonstrates that overexploitation is one of the principal drivers of biodiversity loss globally. Ashoka's restrictions therefore addressed a major ecological pressure recognized by contemporary conservation science.

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Animal Welfare:
Modern animal welfare science recognizes five fundamental freedoms freedom from hunger, discomfort, pain, fear, ability to express natural behaviour. Although formulated only recently, Ashoka's policy reflects an early governmental concern for minimizing unnecessary suffering among animals.

Modern Equivalent:
Major Rock Edict I parallels: Wildlife Protection Acts; Prevention of Cruelty to Animals legislation; Sustainable hunting regulations; Ethical livestock policies

6. Ecological Analysis of Major Rock Edict II

Major Rock Edict II is perhaps the most environmentally significant inscription in ancient history.
It records that Ashoka ordered: Medicinal herbs to be planted wherever absent, medicinal plants for both humans and animals, fruit-bearing trees to be introduced, wells to be dug, trees to be planted along roads for the benefit of humans and animals.

a) Medicinal Plant Conservation:
The deliberate introduction of medicinal species represents one of the earliest state-sponsored botanical conservation programmes. Today medicinal plants remain essential components of: Pharmaceutical research, traditional medicine, biodiversity conservation.
The **World Health Organization (WHO)** estimates that a large proportion of the global population continues to rely on traditional medicinal plants for primary healthcare. Contemporary conservation efforts therefore emphasize protecting medicinal plant diversity as an important public-health resource. Ashoka's policy anticipated this relationship between biodiversity and human health.

Veterinary Ecology:
Remarkably, Ashoka explicitly included animals within healthcare policy. This reflects an understanding that animal health contributes to societal wellbeing. Modern **One Health** science likewise emphasizes the interconnected health of humans, animals, and ecosystems.

b) Roadside Tree Plantation:
Ashoka's roadside plantations served numerous ecological functions.

1) **Carbon Sequestration:** Trees absorb atmospheric carbon dioxide through photosynthesis. Urban forestry research demonstrates that roadside vegetation contributes to long-term carbon storage while reducing urban heat.

2) **Air Pollution:** Leaves intercept particulate matter ($PM_{2.5}$ and PM_{10}). Numerous studies demonstrate measurable reductions in airborne particulates adjacent to well-designed roadside green corridors.

3) **Biodiversity:** Roadside trees function as ecological corridors linking fragmented habitats. They provide nesting sites, pollinator habitat, food resources, movement pathways for wildlife.

4) **Soil Conservation:** Tree roots stabilize soils; canopies reduce erosion caused by rainfall. Leaf litter improves soil fertility.

5) **Human Health:** Modern public health research associate's urban green infrastructure with: Reduced heat stress, improved mental health, increased physical activity, reduced cardiovascular disease risk.

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Ashoka's plantations therefore produced both ecological and social ecosystem services.

c)Water Conservation: Major Rock Edict II also ordered wells to be constructed along roads. Scientifically, this promoted groundwater availability, drought resilience, agricultural sustainability, safe drinking water for travellers and animals. Modern integrated water-resource management follows similar principles of ensuring equitable access to water while supporting ecosystem resilience.

8. Major Rock Edict V: Administrative Framework for Environmental Governance

One of the most remarkable contributions of Emperor Ashoka to environmental governance was not merely issuing moral injunctions but establishing a **state administrative machinery** responsible for implementing them. Major Rock Edict V records the appointment of **Dhamma-Mahāmātras (Officers of Dhamma)** during the thirteenth regnal year. Although historians generally interpret these officers as moral administrators, a closer ecological reading suggests that they also promoted policies relating to animal welfare, public health, social welfare, and environmental ethics.

The edict states:

"Dhamma-Mahāmātras have been appointed for the welfare and happiness of all..."

The phrase **"all beings" (sarva-bhūta-hita)** extends beyond human society and is consistent with Ashoka's repeated concern for animals throughout the inscriptions.

Ecological Interpretation: Modern environmental governance depends upon specialised institutions such as: Ministries of Environment, Forest Departments Wildlife Authorities Biodiversity Boards Environmental Protection Agencies Similarly, Ashoka institutionalised environmental ethics by appointing permanent public officers rather than relying solely on religious preaching. This represents one of the earliest examples of **environmental administration** in world history.

9. Major Rock Edict XIII: From Military Conquest to Ecological Civilization

Major Rock Edict XIII is usually remembered for describing the devastating consequences of the **Kalinga War**. The inscription records that: More than one hundred thousand people were killed, many more died later, countless families suffered displacement. Following this catastrophe, Ashoka declared that the greatest victory was not military conquest but **Dhamma-Victory (Dhammavijaya).**

Environmental Perspective: Wars have always produced ecological destruction: Burning forests, destruction of agriculture, pollution of rivers, wildlife mortality, soil degradation, habitat fragmentation. Although Ashoka does not explicitly describe these ecological consequences, modern environmental history demonstrates that warfare invariably damages ecosystems.

His rejection of warfare therefore indirectly became a policy promoting ecological stability. Recent environmental historians increasingly recognise that peace contributes to biodiversity conservation because protected landscapes are less likely to suffer habitat destruction associated with armed conflict. Thus, Ashoka's rejection of aggressive warfare represents one of history's earliest examples of linking **peace with environmental sustainability.**

10. Major Pillar Edict V: The World's Earliest Wildlife Protection Law

Among all Ashokan inscriptions, **Major Pillar Edict V** is perhaps the most significant from the perspective of conservation biology. It contains a remarkably detailed list of protected species. These

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include various birds, mammals, reptiles, aquatic animals. The inscription also prohibits killing pregnant animals, killing nursing animals, destruction of nests, unnecessary branding, certain methods of fishing, animal castration on specified days.

Seasonal Conservation: Modern wildlife biology recognises breeding seasons as the most vulnerable period in an animal's life cycle. Ashoka prohibited hunting and fishing during particular periods.

This resembles today's: Closed Hunting Seasons, Closed Fishing Seasons, Breeding Habitat Protection, Wildlife Sanctuary Regulations; such restrictions prevent population collapse and allow species to reproduce successfully.

Protection of Juveniles: Modern conservation emphasises protecting juveniles because recruitment of young animals determines long-term population stability. Ashoka's prohibition on killing nursing mothers reflects sophisticated ecological understanding. Without protecting reproductive females, wildlife populations decline rapidly.

Protection of Birds: Several bird species listed in the edict received legal protection. Birds perform essential ecosystem services: Seed dispersal, pollination, insect control, nutrient cycling. Modern ornithology confirms that bird decline often indicates ecosystem degradation.

Ashoka therefore protected important ecological indicators centuries before ecological science emerged.

11. Biodiversity Conservation

The **Convention on Biological Diversity (1992)** defines biodiversity as the variability among living organisms including terrestrial, marine and aquatic ecosystems. Although this scientific terminology is modern, Ashoka's inscriptions clearly recognise the importance of protecting multiple forms of life. His concern extends to mammals, birds, reptiles, fish, domestic animals, wild animals. Such comprehensive concern suggests an ecological worldview rather than merely symbolic compassion.

Modern Scientific Comparison: Current conservation biology identifies five principal causes of biodiversity loss habitat destruction, overexploitation, pollution, invasive species, climate change. Ashoka addressed one of these major drivers directly. Example; Overexploitation through hunting and slaughter. His restrictions therefore reduced ecological pressure on wildlife populations.

12. Forest Ecology and Fire Management

Although Ashoka never established "National Parks" in the modern sense, his inscriptions discouraged unnecessary destruction of living organisms. Several scholars interpret references in the Pillar Edicts as discouraging the burning of forests simply to drive out animals or facilitate hunting.

Scientific Significance: Uncontrolled forest burning results in: Carbon emissions, destruction of soil microorganisms, wildlife mortality, habitat fragmentation, decline in ecosystem productivity. Modern forest management similarly prohibits unnecessary burning because forests function as: Carbon sinks, biodiversity reservoirs, hydrological regulators, climate stabilisers. Ashoka's concern for preventing needless destruction of habitats anticipates these ecological principles.

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13. Fisheries Conservation

Major Pillar Edict V contains restrictions relating to fishing. Modern fisheries science demonstrates that overfishing leads to collapse of fish populations, food web disruption, loss of aquatic biodiversity. Ashoka restricted fishing on specified days. Although these restrictions were partly ethical, they also reduced harvesting pressure.

This resembles present-day: Seasonal fishing bans, marine protected areas, sustainable fisheries management.

14. Compassion as Ecological Policy

Modern environmental governance generally relies upon: Legislation, scientific monitoring, economic regulation.

Ashoka introduced an additional dimension:

Compassion: Far from being merely emotional, compassion functions as a practical conservation principle.

Contemporary conservation psychology increasingly recognises empathy toward nature as an important determinant of pro-environmental behaviour. Environmental education programmes worldwide seek to cultivate precisely this ethical relationship between humans and biodiversity. Ashoka institutionalised such ethics over twenty-two centuries ago.

15. One Health: A Modern Scientific Perspective

The **One Health** framework, promoted by the World Health Organization (WHO), the Food and Agriculture Organization (FAO), the World Organisation for Animal Health (WOAH), and the United Nations Environment Programme (UNEP), recognises that human health, animal health, and ecosystem health are inseparably linked.

- **Ashoka's policies anticipated this integrated approach**.

His inscriptions simultaneously promoted: Medical treatment for humans, veterinary care, protection of wildlife, medicinal plant cultivation, water availability.

- **These measures collectively improved ecosystem resilience**.

Modern epidemiology recognises that healthy ecosystems reduce zoonotic disease emergence. Thus, Ashoka's integrated policies align remarkably well with contemporary One Health principles.

16. Ecological Governance versus Exploitative Governance

Most ancient empires measured success through: Territorial expansion, tribute, military victories, extraction of natural resources. Ashoka introduced a different administrative philosophy. His inscriptions repeatedly define good governance as: Welfare, compassion, restraint, justice, protection of life. This represents an early transition from extractive governance toward sustainability-oriented governance.

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17. Scientific Evaluation

From a contemporary ecological perspective, Ashoka's environmental policies contributed to several measurable ecosystem services:

Ashokan Policy	Modern Ecological Function
Protection of breeding animals	Population stability
Restriction on hunting	Wildlife conservation
Restriction on fishing	Sustainable fisheries
Protection of birds	Ecosystem regulation
Prevention of unnecessary killing	Biodiversity conservation
Compassion towards animals	Ethical conservation
Administrative officers	Environmental governance

19. Ashoka's Roadside Tree Plantation Programme: The Earliest State-Sponsored Afforestation Initiative

Among all the environmental measures described in the Ashokan inscriptions, **Major Rock Edict II** occupies a unique position because it records a systematic programme of planting trees, digging wells, and cultivating medicinal plants for the welfare of both humans and animals.

Ashoka declares that he ordered planting of useful and shade-giving trees, establishment of orchards, digging of wells along roads, cultivation of medicinal herbs where they were absent, provision of these facilities for both people and animals.

Unlike ceremonial tree planting, this was an organised public works programme extending throughout the Mauryan Empire. From the perspective of environmental history, it represents one of the earliest documented examples of **state-sponsored green infrastructure**.

20. Scientific Basis of Roadside Afforestation

Modern environmental science recognises roadside plantations as multifunctional ecological systems rather than merely aesthetic landscapes.

Their ecological services include: atmospheric carbon sequestration, reduction of particulate pollution, urban cooling, groundwater conservation, soil stabilisation, biodiversity enhancement, noise attenuation, psychological and public-health benefits.

Ashoka's programme anticipated these ecological functions by more than two millennia.

21. Carbon Sequestration and Climate Change

One of the greatest environmental challenges of the Anthropocene is the accumulation of atmospheric carbon dioxide. Trees mitigate climate change through photosynthesis by storing carbon in: trunks, branches, leaves, roots, surrounding soils.

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Recent studies on roadside green spaces demonstrate that native tree species store substantially more carbon than many invasive species while simultaneously improving thermal comfort and biodiversity. A 2025–2026 study from Delhi's JNU campus found roadside trees reduced air temperatures by up to **2.24°C** and land-surface temperatures by **3.8–8.37°C**, with native species contributing far more to carbon storage than invasive species. Although Ashoka could not have known the chemistry of atmospheric carbon, his policy of extensive roadside tree planting aligns closely with modern climate-mitigation strategies based on urban forests.

22. Urban Heat Island Mitigation

Rapid urbanisation has intensified the **Urban Heat Island (UHI)** effect. Concrete, asphalt and built infrastructure absorb solar radiation, increasing city temperatures. Trees reduce this warming through evapotranspiration, canopy shading, reduced surface radiation, improved humidity balance.

The shade trees planted along Mauryan highways would have reduced heat stress for travellers and animals while creating cooler transport corridors.

Modern climate adaptation similarly recommends green corridors and urban forests as nature-based solutions.

23. Air Pollution Control: Lessons for Delhi

Delhi experiences some of the world's highest concentrations of $PM_{2.5}$ and PM_{10} because of vehicular emissions, industry, construction dust, biomass burning, and seasonal meteorological conditions. Recent analyses show that although some contributors have changed over time, particulate pollution remains a major public-health challenge.

Scientific research demonstrates that roadside vegetation can: Intercept airborne particulate matter, absorb gaseous pollutants, reduce roadside dust, improve thermal comfort, lower noise pollution. Meta-analyses conclude that urban greenery is an important component of integrated air-pollution management, although it cannot replace emission reduction at the source.

Recent research also shows that **species selection matters**. Native, pollution-tolerant species generally provide greater ecological benefits than poorly chosen invasive species.

This provides an important modern interpretation of Ashoka's policy: tree planting should not simply increase tree numbers, but should prioritise ecologically appropriate species.

24. Ecosystem Services Provided by Ashoka's Tree Plantations

Modern ecology classifies ecosystem services into four categories.

A. Regulating Services

- Climate regulation
- Air purification
- Carbon sequestration
- Flood control

B. Supporting Services

- Nutrient cycling

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- Soil formation
- Pollinator habitat
- Biodiversity maintenance

C. Provisioning Services

- Fruits
- Medicinal resources
- Timber (under sustainable management)
- Fodder

D. Cultural Services

- Shade for travellers
- Recreational landscapes
- Spiritual value
- Psychological well-being

Ashoka's roadside plantations simultaneously delivered all four categories of ecosystem services.

25. Water Conservation and Hydrological Sustainability

Major Rock Edict II records the construction of wells along roads and the provision of water for both humans and animals.

From the perspective of hydrology these measures would have increased water availability, supported long-distance travel, reduced drought vulnerability, sustained livestock, improved agricultural resilience. Trees planted near water sources also contribute to groundwater recharge, reduced evaporation, bank stabilisation, improved infiltration.

Thus, Ashoka's integrated approach linked afforestation with water-resource management.

26. Medicinal Plant Conservation

One of the most remarkable environmental policies of Ashoka was the state-supported cultivation of medicinal plants. The edict specifically states that medicinal herbs were introduced wherever they were absent.

This policy represents an early recognition that plant diversity contributes directly to public health. Today, medicinal plants remain indispensable to:

- Ayurveda,
- Siddha,
- Tibetan medicine,
- Traditional Chinese Medicine,
- pharmaceutical research.

The World Health Organization continues to recognise traditional medicinal plants as an important component of primary healthcare in many parts of the world. Modern conservation therefore emphasises protecting medicinal plant diversity against habitat loss and overexploitation.

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27. One Health and Veterinary Ecology

Ashoka's concern for medicinal plants extended beyond human healthcare. The inscriptions explicitly mention medicinal provisions for **animals**. This reflects a remarkably advanced understanding that: Healthy animals support healthy ecosystems; healthy ecosystems support healthy people.

This philosophy corresponds closely to the modern **One Health** framework, which integrates: human medicine, veterinary medicine, ecology, environmental science.

28. Ecological Restoration

Modern restoration ecology seeks to recover degraded ecosystems through native vegetation, watershed restoration, biodiversity enhancement, ecological connectivity (Vijayalaxmi & Dnyanesh, 2021). Ashoka's programme shares several of these characteristics.

His policies encouraged planting vegetation where absent, restoring ecological productivity, improving public landscapes, increasing biological resources.

Although developed without modern ecological terminology, these measures resemble contemporary restoration programmes.

29. Environmental Economics

Environmental economists increasingly quantify the economic value of ecosystem services. Roadside trees generate measurable benefits through lower healthcare costs, improved air quality, reduced energy consumption, increased property values, carbon storage, flood mitigation.

Ashoka's investments in trees, wells and medicinal plants can therefore be interpreted as long-term investments in **natural capital**, reducing environmental risk while improving public welfare.

30. Climate Resilience

Climate resilience refers to the capacity of ecosystems and societies to withstand environmental disturbances.

Ashoka's environmental policies strengthened resilience through: Diversified vegetation, improved water access, healthier ecosystems, protection of wildlife, public health measures. Together, these actions reduced vulnerability to drought, heat, and ecological degradation.

31. Comparative Analysis

Ashokan Policy	Modern Scientific Concept
Roadside tree plantation	Urban forestry
Shade trees	Urban heat-island mitigation
Medicinal plant cultivation	Biodiversity conservation & ethnobotany
Wells along roads	Integrated water-resource management
Care for animals	One Health
Green public works	Nature-based solutions

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Ashokan Policy	Modern Scientific Concept
Public welfare through ecology	Ecosystem services

Discussion:

The first two Major Rock Edicts reveal that Ashoka's concern for nature was not symbolic but administrative. His reforms combined ethics with practical governance: limiting unnecessary animal slaughter, establishing medicinal plant networks, planting roadside trees, and creating water infrastructure. From a modern scientific perspective, these initiatives align with biodiversity conservation, ecosystem services, One Health, urban forestry, and sustainable resource management. While Ashoka did not possess the terminology of contemporary ecology, his policies demonstrate a sophisticated appreciation of the interdependence of human welfare and environmental health.

The inscriptions examined and demonstrate that Ashoka's environmental vision extended far beyond personal morality. Through the appointment of Dhamma-Mahāmātras, legal protection of wildlife, restrictions on hunting and fishing, and concern for breeding animals and habitats, he embedded ecological values within the machinery of the state. In modern terms, these measures correspond to biodiversity governance, species conservation, environmental administration, and the ethical foundations of sustainability. While the edicts should not be interpreted as equivalent to modern environmental statutes, they reveal an unusually advanced understanding of the need for government responsibility toward the natural world.

Major Rock Edict II reveals that Ashoka viewed environmental management as an essential responsibility of the state. His programme of roadside afforestation, medicinal plant cultivation, and water infrastructure combined public welfare with ecological stewardship. Modern environmental science confirms that such measures provide multiple ecosystem services, including carbon sequestration, urban cooling, biodiversity support, and improved public health. Contemporary studies on Delhi's urban forests further show that well-planned roadside plantations can reduce temperatures, intercept air pollutants, and store carbon, especially when native species are prioritised.

These findings reinforce the argument that Ashoka's environmental policies were not merely ethical ideals but practical interventions that resonate strongly with today's concepts of climate adaptation, restoration ecology, and sustainable urban planning.

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