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Traditional Indian Knowledge Systems in Environmental Sustainability

SONALI GOPAL BHARDWAJ*

Department of AS & H, ADGIPS College
Delhi, India
sonalibhardwaj@adgips.ac.in

KANCHAN R. GOPAL

Department of BS & H, TGPCET
Nagpur, Maharashtra, India
kanchan.fyr@tgpcet.com

Abstract

Currently, the predominant global focus is on environmental conservation—preserving water, conserving power, and safeguarding natural resources. This research primarily focuses on the Indian Knowledge System in relation to environmental sustainability. The Sustainable Development Goals (SDG) emphasize and examine ancient history as a method for developmental growth and progress. IKS primarily concentrates on the Vedic Era. Indian knowledge systems endeavor to establish a connection with the foundations of our cultural heritage and customs. Currently, the Sustainable Development Goals (SDGs) are collaborating with the Indian Knowledge System, which integrates traditional wisdom with scientific methodology to foster growth and progress, ultimately leading to advancements in artificial intelligence from a comprehensive perspective. The Vedas and Upanishads possess profound significance that elucidates the nature of the universe, its operations, and its contribution to societal well-being.

Keywords: Ahimsa, Biodiversity, Ecological Wisdom, Traditional Ecological Knowledge, Vrikshayurveda.

1. INTRODUCTION

Nevertheless, agriculture, architecture, biodiversity conservation, and ethical environmentalism have facilitated sustainable development. This approach received acknowledgment and acceptance in both scholarly and policy discussions. Environmental sustainability is the paramount necessity of the 21st century. It was adopted by the United States in 2015 and thereafter accepted worldwide. The United Nations offers a framework for attaining a balanced development model that integrates environmental, economic, and social objectives (United Nations, 2015).

* Corresponding Author.

This study emphasizes that the Indian Knowledge System is a global framework that aids in the preservation and understanding of the diverse parts of the universe. It also directs us to harmonize ecologically, which embodies ethical, spiritual, and communal values, ultimately aiding in the preservation of the planet and facilitating technological progression. This method provides unrestricted access, extensive exposure, and boundless opportunity, yielding enduring results characterized by the sustainability of knowledge. The Indian Knowledge System represents our historic heritage, with the four Vedas serving as its testament.

Indian Knowledge Systems (IKS), rooted in historic philosophical, theological, and cultural traditions, provide sustainable, ethical, and holistic approaches to environmental management that align well with Sustainable Development Goal goals (Mohanapriya & Suriya, 2025).

It signifies a harmonious interaction between humanity and nature, not solely as resource consumers but as active participants in a cosmic ecology (Baig, 2024) [4]. The objective of this article is to obtain responses to the issues outlined below.

In what ways has the Indian Knowledge System concentrated on and assessed environmental sustainability? What is the IKS mechanism, and how does it help Vikasit Bharat? How were European environmental centrism and traditional Indian environmentalism compared, and what type of comparison was done in the context of the Sustainable Development Goals (SDGs)?

The Indian knowledge system establishes sustainable development goals that primarily concentrate on three aspects: decolonial theory, ecofeminism, and political ecology. This approach regards Indigenous Knowledge Systems (IKS) as a fundamental epistemology that critically examines the assumptions, omissions, and power dynamics inherent in the Sustainable Development Goals (SDGs) rather than viewing IKS as just supplemental to global sustainability discussions (Mignolo & Escobar, 2010).

2. THEORETICAL MODULE

The article discusses the objectives of sustainable development in relation to the Indian knowledge system and Western environmental paradigms.

1. Decolonial Anthropocentric.
2. Ecofeminism.
3. Ecology is technocentric.
4. Natural Resources.

3. DECOLONIAL ANTHROPOCENTRIC

Decolonial theory offers a perspective to contest the epistemic supremacy of Western paradigms, exposing how Sustainable Development Goal narratives frequently generalize development while sidelining indigenous perspectives.

4. ECOFEMINISM

Ecofeminism elucidates the gendered aspects of environmental degradation and the marginalization of knowledge, acknowledging women's historic ecological roles within Indigenous Knowledge Systems as vital to sustainability (Kings, 2017; Salleh, 2017). Ecofeminism elucidates the gendered aspects of environmental degradation and the marginalization of knowledge, acknowledging women's historic ecological roles within Indigenous Knowledge Systems as vital to sustainability (Kings, 2017; Salleh, 2017).

Ecofeminism across Indian and Western epistemologies highlights the interconnection of dominance, violation, suffering, and exploitation of the female gender. French feminist Françoise d'Eaubonne coined this concept in 1974, emphasizing the reconstruction of women's imagery. Ecofeminists presented an open challenge to this male-dominated patriarchal culture. Females are a crucial and fundamental component of society. She plays a significant function in society. The human race is incomplete without her.

5. ECOLOGY TECHNOCENTRIC

The approaches of Indian and Western cultures differ. One perceives prakriti as the center, while another regards humanity as the center, respectively. We believe that observation and pre-service occurred first, while they perceive it as a consumer-driven phenomenon, resulting in a shift in priorities. Inferior and superior concepts were present. The study of power, politics, and the environment aligns with the classical Indian philosophy and ethical concepts of IKS. They are an important part, guided by a holistic spirit and natural understanding.

Critics emphasize that IKS promotes ecological balance with a spiritual dimension to pursue social justice and decolonize the environment by prioritizing variety in relation to sustainable development goals. They prioritize power distribution and the justification of justice. At the same time, they have a greater inclination to maintain peace in society and oppose environmental regulations that are founded on scientific data analysis.

Gandhian ideas advocate for socially grounded sustainable solutions. The solution must be profoundly linked to the environment. This is not entirely reliant on technological aspects. concerning the Indian Knowledge System. Ecofeminism is a theoretical framework that connects the exploitation of nature to the subjugation of women, emphasizing the principles of caring ethics. To comprehend this concept thoroughly, we must refer to the Western knowledge system. Historically, it is essential to examine postcolonial states to comprehend environmental concerns, which frequently conflict with the concept of harmony with nature. This also obscures the comprehension of the environmental policy of ethnocentrism.

India has adhered to the concept of pest colonization, deriving extracts from nature that adversely impact our ecological system. Conversely, the Green Revolution was an astute technique to enhance agricultural quality and demonstrated itself to be

a blessing amidst adversity. The Green Revolution introduced innovative technological solutions and techniques. Traditional water management systems, such as baolis and inspection dams (johads), represent significant advancements. It enhances Integrated Water Resources Management (IWRM) as a strategic framework, despite ongoing obstacles such as data deficiencies and inadequate governance (UN-Water, 2020). It has concurrently disrupted our ecological system in several areas.

Subsequently, digital technology has advanced, augmenting the authority of the state and technological elite, thus enhancing their influence. Waste management is an essential technique in sustainable development. Utilizing garbage and repurposing it is beneficial. Organic products have dominated the market and offer numerous health benefits. In summary, organic products are primarily a renewable energy source. The government mostly emphasizes forest conservation. The preservation of wildlife and biodiversity within technology is of significant importance.

These are our development techniques, but when we consider our Indian knowledge system, we will not overlook the cohesive concepts encountered during this collaborative development. The Isha Upanishad imparts knowledge regarding ecology and contemporary environmental legislation. The Isha Upanishad emphasizes the principle of sustainable consumption, advocating for individuals to consume only what is essential while reserving the remainder for others—a philosophy that corresponds with contemporary notions of resource equality and environmental justice (Isha Upanishad 1.1).

The Manusmriti expressly cautions against contaminating waterways or damaging trees, so instituting early environmental regulations grounded in spiritual and ethical accountability (Manusmriti 4.56). The Matsya Purana vehemently denounces superfluous tree cutting, underscoring the ancient awareness of the adverse consequences of deforestation (Matsya Purana 59.34).

6. NATURAL RESOURCES

Within the Indian epistemological framework, the Indian Knowledge System prominently evokes the Vedic period, Vedic lifestyle, and Vedic literature. In this era, only two entities existed: purusha and prakriti. In this context, "purusha" refers to human beings.

- Shiksha
- Vyakarana/Grammar
- Chanda's rules for presenting knowledge
- Nirukta / Ensure correct meaning
- Kalpa / Norms and rules
- Jyotisha / Methodology for Timing Events

Referred to as the six limbs of Vedanga. This remains ongoing, and the primary objective of our shishka education system is to impart accurate knowledge about many subjects and the universe. To date, all languages are founded on the

grammatical principles established by Vyakarana, while the phonetic aspects of language were addressed throughout the Vedic period, demonstrating precision in word usage and meaning. Kalpa denotes the principles and regulations that facilitate the overall cultivation of consciousness in life. Jyotisha pertains to the celestial alignments inside the galaxy. This information remains useful now, surpassing even the highest standards of perfection. It serves a crucial and central role in sustainable development. It additionally embodies Vedic traditions.

The Indian knowledge system primarily emphasizes five elements: earth, water, fire, air, and space. They are considered a holistic and sacred aspect of our existence, upon which our entire life depends. The foundations of sustainable development are inherent in Indigenous Knowledge Systems (IKS). We are currently contextualizing it through technological advancements and new regulations aimed at enhancing convenience, happiness, and accessibility, thus providing a fresh perspective and increasing comfort in our lives. The four Vedas represent the exemplary and flawless manifestation of this concept.

7. CONCLUSION

Indian knowledge systems provide a thorough, proven, and community-based framework for environmental sustainability. Rooted in spiritual ethics, localized practices, and community stewardship, Indigenous Knowledge Systems (IKS) reflect a kind of environmentalism that predates and, in many respects, complements the formal sustainability goal embodied by the Sustainable Development Goals (SDGs). Examining Indigenous Knowledge Systems (IKS) through the integrated perspectives of decolonial environmentalism, political ecology, and ecofeminism amplifies their importance. These frameworks elucidate the epistemic inequalities inherent in colonial and postcolonial environmental governance, reveal the power imbalances implicit in contemporary global policy models, and highlight the gendered aspects of ecological labor. Decolonial philosophy contests the marginalization of indigenous traditions, political ecology underscores fairness and resource accessibility, and ecofeminism prioritizes care-based, relational ethics that form the foundation of traditional Indian ecological understanding. This study contends that Indigenous Knowledge Systems (IKS) should not be viewed solely as cultural artifacts but rather as robust solutions capable of enhancing and transforming contemporary sustainability practices. Integrating ancient knowledge with modern policies would enhance SDG goals and promote a more equitable, inclusive, and environmentally sustainable future. Embracing Indigenous Knowledge Systems is not merely an acknowledgment of tradition; it constitutes an essential paradigm shift towards planetary health and human dignity in the Anthropocene epoch.

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