Indian Knowledge System and Nep 2020: A Study on Integration and Sustainability

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Abstract- The Indian Knowledge System (IKS), when incorporated into the National Education Policy (NEP), offers a valuable opportunity to enrich education with its rich traditions and insights. The 2020 framework lays a solid foundation for sustainability, rooted in tradition, innovation, and inclusivity. IKS involves passing knowledge across generations, primarily through structured texts such as Vedic literature, including the Upanishads, Vedas, and Upavedas, which provide deep insights into ancient wisdom. It highlights the interconnectedness of all life, viewing nature as a manifestation of the divine. Plants such as Neem, Tulsi, and Peepal are worshipped, encouraging sustainable planting practices. India has historically been a center of knowledge, with renowned universities like Nalanda, Takshashila, and Magadh. Developed through experience, observation, experimentation, and analysis, IKS focuses on sustainable development. This paper examines the role of IKS in promoting sustainability.

Keywords: Indian Knowledge System, Upanishads, Vedas, and Upvedas

I.INTRODUCTION

India's educational and cultural landscape is undergoing rapid transformation through the integration of the Indian Knowledge System (IKS) and the 2020 National Education Policy (NEP). This study highlights that IKS, which promotes harmony, balance, and moral living, offers enduring principles that align with modern sustainability goals. Incorporating indigenous wisdom into mainstream education revitalizes India's rich intellectual heritage and equips learners to address global challenges. Humans naturally generate knowledge, with our unique capabilities distinguishing us from other species. The Indian Knowledge System is broad and intricate, encompassing areas such as archaeology, Ayurveda, medicine, astrology, astronomy, public administration, and economics. It involves not only acquiring knowledge but also understanding its role in fostering economic, social, and global development. The ideas of "Indian Knowledge" and "sustainable development" are interconnected but have distinct meanings. Historically, dependence on Macaulay's English education system disconnected us from our roots, causing issues. This paper examines how the Indian education system can foster sustainable development by prioritizing the conservation of natural resources and promoting the well-being of the Earth.

II.INDIAN KNOWLEDGE SYSTEM (IKS): A HERITAGE OF SUSTAINABILITY

IKS refers to the vast reservoir of indigenous wisdom developed over millennia. IKS is inherently sustainable, and it values balance, minimalism, and reverence for life required

- Ayurveda and Yoga: Promoting holistic health and well-being.
- Vedic Mathematics and Astronomy: Encouraging intellectual rigor and scientific inquiry.
- Ecological Ethics: Embedded in texts like the Vedas and Upanishads, emphasizing harmony with nature.
- Crafts and Architecture: Sustainable design principles in temple architecture, water harvesting, and metallurgy.

NEP 2020: REDESIGNING EDUCATION FOR A SUSTAINABLE FUTURE

India's extensive knowledge heritage is emphasized in NEP 2020. The Indian Knowledge Systems (IKS) are acknowledged as scientifically valid, integrating tribal

wisdom with traditional education. They span multiple fields, including mathematics, astronomy, philosophy, yoga, architecture, medicine, and agriculture. Particular emphasis is placed on tribal ethno-medical practices, forest management, natural farming, and related areas. Historically, 18 major vidyas, or theoretical disciplines, and 64 kalas, or practical and vocational arts, are recognized. These 18 vidyas include the four Vedas, the four subsidiary Vedas (like Ayurveda, Dhanurveda, Gandharvaveda, and Silpa), the Puranas, Nyaya, Mimamsa, Dharmasastra, and Vedanga, which are six auxiliary sciences covering phonetics, grammar, astronomy, ritual, and philology, forming the foundation of ancient Indian sciences. Various lists of the 64 applied sciences exist. Ultimately, the focus remains on sustainable development, meeting current needs without compromising future generations' ability to do the same, while also addressing environmental challenges and climate change.

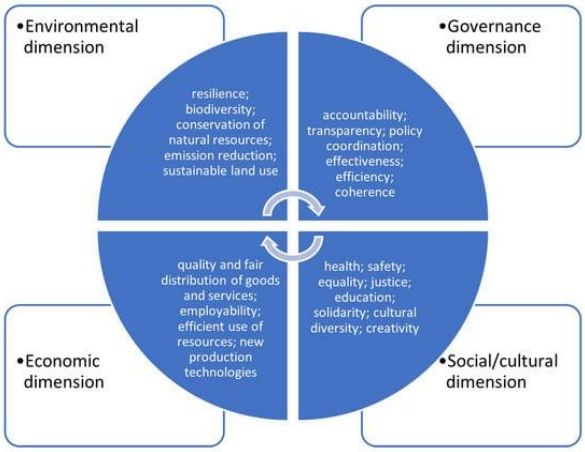
The NEP 2020 aims to incorporate IKS into mainstream education. This policy change seeks to foster globally conscious yet locally connected citizens.

- Curriculum Revamp: Incorporating traditional knowledge systems into subjects like science, arts, and philosophy
- Multidisciplinary Learning: Promoting students to study ancient wisdom together with modern fields
- Local Contexts: Encouraging regional languages and indigenous customs to protect cultural heritage
- Values-Based Education: Promoting ethics, empathy, and environmental awareness.

III.SUSTAINABILITY DIMENSIONS IN IKS AND NEP 2020

This study shows in Table-01 that ancient Indian wisdom aligns with several UN Sustainable Development Goals (SDGs), especially SDG 3: Good Health and Well-being, SDG 4: Quality Education, and SDG 12: Responsible Consumption and Production.

Pillar of Sustainability	Contribution from IKS & NEP 2020
Environmental	Traditional farming, water conservation, and ecological rituals
Economic	Revival of local crafts, sustainable livelihoods, and entrepreneurship
Social	Inclusive education, gender equity, and community-based learning
Human	Mental wellness through yoga, moral education, and lifelong learning



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IV.RESEARCH OBJECTIVE

- To examine the role of the Indian knowledge system in sustainable development.
- To understand the reason for integrating the Indian knowledge system into our education system

V.RESEARCH DESIGN

This study is based on existing data and draws on a range of sources, including books, journals, online materials, newspapers, and personal archives. The data collected helped achieve the study's goals. Although a lot of relevant information is available online, this paper focuses on the most essential points, including the author's own experience and expertise, which also contribute to this paper.

VI.RESULTS AND DISCUSSION

India has a rich history of civilization, unlike other parts of the world, which were once considered

uncivilized. Sustainability has been an integral part of Indian tradition for a long time. We examine the four main pillars of sustainability: human, social, economic, and environmental. These pillars provide a comprehensive approach to achieving a lasting balance between human progress and the health of the planet. By emphasizing people and communities more, they expand on the traditional "three pillars" framework.

VII.INDIAN KNOWLEDGE SYSTEM [IKS] AND HUMAN SUSTAINABILITY

Human sustainability centers on preserving and enhancing our society's human resources. IKS prioritizes investments in education and healthcare. Education aims not only to disseminate knowledge but also to cultivate logical thinking and essential skills. As stated in our Vedas, "Arth kari sa Vidya" signifies that education is about equipping individuals with the skills necessary to earn a livelihood and contribute to a sustainable community. Our education policy emphasizes the importance of vocational training in enhancing employability and promoting a more cohesive society.

Ancient Indians considered the body the primary tool for leading a fulfilling life through fulfilling the right duties to achieve Purushartha. As a result, health was regarded as essential to life, and Charaka emphasized that Ayurveda should be studied and practiced by everyone in society. Our focus is on the health and wellness of our mind, body, and soul. Today, on June 21, we observe World Yoga Day. During the pandemic, our region was among the least affected, thanks to dietary habits rooted in indigenous traditions. We include various spices, such as tulsi, Neem, Turmeric, cumin, and black pepper, among others, which also have medicinal properties, in our everyday meals. Additionally, we are integrating millet into our diet and encouraging yoga and meditation to enhance psychological well-being.

India has a long civilizational history with a rich body of knowledge and experience that has developed within its society over time. This knowledge is documented through various literary works, reflecting the diversity of people and issues discussed in the Puranic Repositories. Stories such as Panchatantra Ki Katha, the Upanishads, and epics like the Ramayan and Mahabharata serve as sources of understanding about responsibilities toward family, society, and dharma, which remain relevant across all eras in the Indian tradition. These stories are mainly taught to children so they can absorb these ideas, values, and principles. At the same time, young people can apply this wisdom throughout their lives today. The Geeta is a source of knowledge that enriches us with life skills and understanding.

VIII.IKS AND SOCIAL SUSTAINABILITY

An ideal society is founded on values and inclusivity, regardless of caste, colour, or gender. Historically, our society was organized around occupations. The Ramayana highlights King Rama's respect for Shabri and Khatik. Our Indian knowledge system encompasses all Vedas, Vedangas, Puranas, and related texts. Multiple sources indicate that our society was built on principles of gender equality and inclusivity. Women scholars such as Gargi Vachaknav, Maitreyi, Nalayini, Savitri, Kaikeyi, Sita, Mandodari, and Ahalya played crucial roles in spreading knowledge. As Manu 3-56 states, "Where women are honoured, the gods are pleased; but where they are not honoured, no sacred rite yields rewards." Philosophers and education policymakers highlight the importance of inclusive education at all levels to address inequalities, advocating for international and domestic support for decent work, job creation, quality education, and social protection for all.

IX.IKS AND ECONOMIC SUSTAINABILITY

India has a rich heritage in technology, arts, and crafts, with notable ancient contributions to metallurgy and materials science. Historically, the country has mined iron, gold, and copper from its ores. Its town planning and architecture are culturally significant, and their influence is still visible today. The Artha Shastra, one of the oldest texts on economic management, outlines financial strategies and emphasizes the vital roles of agriculture, cattle rearing, and trade, which remain essential to the economy. A strong treasury and military are crucial for rulers to maintain authority and defend against threats, a legacy still relevant. Our military protects us from neighbouring countries, while terrorism remains a primary global concern. The treasury funds government programs that aim to

enhance citizens' welfare and promote national growth.

X.INDIAN KNOWLEDGE SYSTEMS IN CONSERVING NATURE

The Vedic people's location exemplified a model that was economically, ecologically, and socially sustainable, emphasizing a deep interdependence with nature, as shown in the hymns of the Rigveda. They worshiped natural elements such as the Sun, Moon, stars, plants, animals, forests, rivers, seas, mountains, and other natural features, recognizing the importance of maintaining harmony with nature. Today, issues such as natural disasters, famine, floods, and migration are often caused by the overuse of resources, leading governments to implement climate policies, including the National Action Plan on Climate Change (NAPCC) and the National Clean Air Programme (NCAP). These initiatives aim to reduce pollution and promote sustainability by focusing on energy, water, ecosystems, agriculture, and urban development. Environmental education is vital in raising awareness and reinforcing the idea of "Living in harmony with Nature."

XI.INDIGENOUS KNOWLEDGE AND DISASTER RISK REDUCTION

India's ancient town planning demonstrated advanced organization through community halls and water reservoirs within cities. Today, this thoughtful approach is visible in places like Jaipur, Bikaner, and Kuch, where rainwater collection has been practiced for ages. Currently, efforts focus on water harvesting to combat scarcity and dam construction for irrigation. The sage Shukracharya authored the Manusmriti, addressing topics such as statecraft, military strategies, and the importance of forts and firearms, particularly in Chapter 7. The Puranas, including the Agni, Brahma, and Brahmanda texts, explore diplomacy and war. Recently, there has been a strong push to "Indianize" the military, with Prime Minister Narendra Modi emphasizing increased indigenous development at the Combined Commanders Conference in Kevadia, Gujarat. The legacy of Chanakya, who unified the nation, remains alive today in the government's slogan, "Ek Bharat Shrestha Bharat."

XII.CONCLUSION

Examining the four pillars of sustainability, environmental, economic, social, and human, IKS and NEP 2020 work together to promote a comprehensive approach to development. By supporting traditional farming methods that protect the environment and teaching yoga and value-based education to enhance mental well-being, this partnership creates opportunities for inclusive, resilient, and future-ready communities. To achieve sustainable change, we need more than just policies; active participation is essential. Educators should emphasize hands-on, context-driven learning; institutions need to invest in training and development; and society must recognize the importance of ancient wisdom in shaping modern progress. As India rethinks its educational principles, it is well-positioned to lead not only in innovation but also in sustainable thinking.

Ancient knowledge has been passed down through generations and preserved through both formal and informal means, yet it mostly remains hidden in dusty palm manuscripts scattered across India. Despite efforts to discover and publish this knowledge, these efforts are insufficient, putting rural oral traditions at risk of vanishing. It is outdated to assume that current generations will ignore their ancestors' contributions. This knowledge forms the foundation of societal identity, cultural continuity, and innovation, and losing it could threaten social stability. Societal progress depends on this past wisdom; without it, development faces obstacles, similar to reinventing the wheel. Recognized for its economic importance, especially as the world shifts toward knowledge-based growth, harnessing ancient knowledge through initiatives that promote sustainable development in India becomes crucial.

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