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Page No. : 37-47

Indian Knowledge System : A Panacea for the Contemporary Issues

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Abstract

The Indian Knowledge System (IKS) is an inclusive and comprehensive reservoir that integrates various aspects of human life, including mind, body, and spirit. One of its key features is its interwoven and interdependent links to various facets of knowledge, including mathematics, astronomy, philosophy, medicine, architecture, literature, art, and yoga. The rich heritage of ancient & eternal Indian Knowledge and thought has produced a pool of scholars and philosophers, such as Aryabhata in mathematics, Charaka in medical science, Chanakya in politics, Kalidas in Literature, and so on, who have made seminal contributions to world knowledge. Integrating the Indian knowledge system with modern science and technology, the duo has the potential to deal with many of the world's contemporary issues, like environmental sustainability, climate change, healthcare, social equity, economic prosperity, educational reform, etc. The indigenous practices promote environmental sustainability, yoga and meditation deal with physical and mental stress, traditional art and skills promote sustainable livelihoods, and education based on Indian knowledge systems nurtures ethical leadership and empathy.

As we are heading towards the Viksit Bharat@2047, there is a pressing need to introduce young people to Indian knowledge systems that not only foster pride in one's cultural heritage but also equip them with invaluable insights in dealing with contemporary challenges and making them socially, economically, and politically developed citizens. The NEP 2020 has also recognized the importance of ancient wisdom as the guiding principle for

education. Our young generation must understand that the fusion of ancient and modern knowledge is the key to a healthy, successful, and prosperous future.

Keywords: Indian Knowledge Systems (IKS), Viksit Bharat @ 2047, NEP 2020

Introduction:

Indian Knowledge Systems (IKS), also known as Bhartiya Gyan Paddhati, is a vast and rich collection of Indian traditions that has developed over millennia. It is deeply rooted in ancient texts such as the Vedas, Upanishads, and Puranas. (Bhatt, P.N., 2025) IKS is an inclusive & comprehensive system of knowledge that integrates different aspects of human life, such as mind, body, & spirit. It serves as an umbrella system of knowledge that covers science, social sciences, philosophy, medicine, astronomy, yoga, ayurveda, architecture, agriculture, engineering, linguistics, literature, sports, politics, economics, and governance. (National Education Policy 2020, Para 4.27).

Integrating the Indian knowledge system with modern science and technology, the duo has the potential to deal with many of the world's contemporary issues, like environmental sustainability, climate change, healthcare, social equity, economic prosperity, educational reform, etc. The indigenous practices promote environmental sustainability, yoga and meditation deal with physical and mental stress, traditional art and skills promote sustainable livelihoods, and education based on Indian knowledge systems nurtures ethical leadership and empathy.

Overview of the Indian Knowledge System:

The Indian Knowledge System refers to an encyclopedia of knowledge, practices, and traditions that has developed in India over millennia, encompassing philosophy, science, mathematics, medicine, astronomy, and governance. It is deeply rooted in the scriptures such as the Vedas, the Upanishads, the Puranas, and works of scholars such as Aryabhata, Charaka, and Kautilya, that offer a worldview where science, spirituality, and ethics form a coherent framework. As the world grapples with ecological crises, psychological stress, and socio-economic inequalities, IKS provides a necessary

paradigm shift towards a more sustainable and inclusive model of development. (Rawan, 2025).

The Indian Knowledge System has produced a pool of scholars, philosophers, and mathematicians, such as Aryabhatta, Charaka, Varahamihira, Bhaskaracharya, Brahmagupta, Chanakya, Panini, Patanjali, Nagarjuna, Gautama, Pingala, Sankardev, Maitreyi, Gargi, and Thiruvalluvar, among numerous others, who have made seminal contributions to world knowledge (National Education Policy 2020, introduction, pp.4). In mathematics, Aryabhatta and Ramanujan made groundbreaking contributions, particularly in trigonometry, algebra, and arithmetic, that have significantly influenced global mathematical tradition (P.S. Shobita, 2024). Texts like Charaka Samhita and Shushruta Samhita have a reservoir of knowledge on medical practices, herbal remedies & surgical techniques which are prevalent in the present era. Chanakya's teachings and practices are found in the Arthashastra, providing valuable insights into diplomacy and governance. Panini was considered the father of linguistics, who had worked on the Sanskrit grammar and written a highly scientific text, *the Ashtadhyayi*. Known as the Shakespeare of India, Kalidas was the greatest poet and dramatist of ancient India whose works set the standard for classical Sanskrit literature and are renowned for their lyrical beauty, emotional depth, and vivid descriptions of nature.

The Indian Knowledge System is grounded in a philosophical framework that includes dharma (righteous duty), karma (actions and consequences), and moksha (liberation). Values like Vasudhaiva Kutumbakam (the world is one family) and Ahimsa (non-violence) foster a sense of community and compassion. These values promote ethical conduct, interconnectedness, and a holistic approach to life. Different schools of Indian philosophy, such as Nyaya, Samkhya, and Mimamsa, provide a diverse perspective on ethics and values. Nyaya provides rationality and critical thinking in decision-making, Samakya gives insight for self-realization and ethical conduct, and so on. These philosophical ideologies provide an insight into the ethical dimension of human existence and guide an individual to lead a morally upright life. (Patel, 2024)

Indian Knowledge System in the National Education Policy 2020:

The Indian education system has a rich history. People all over the world, like Hiuen Tsang, came to India to the world-famous Nalanda University to get a quality education. In ancient times, the "Gurukul System" was there, where students resided with their teachers, and the focus was on holistic development, including spiritual, moral, and intellectual growth. Knowledge was imparted in both formal and informal ways, and students learned not only through memorization but also through dialogue and experiential learning under the guidance of their 'gurus'. The prevalent pedagogies were storytelling and narratives, experiential learning, discourses, and debates in which students were encouraged to critically analyse ethical dilemmas, discuss moral principles, and defend their viewpoints based on logical reasoning and scriptural knowledge. It fostered intellectual growth, ethical reasoning, and the ability to apply philosophical principles in practical situations. (Patel, 2024)

Unfortunately, the contemporary education system of India is far from the values and traditions of the ancient period, and has been Westernized and exam-oriented. To regain its ancient glory, the National Education Policy 2020 has proposed the incorporation of "Knowledge of India" in the school curriculum accurately and scientifically. Indian Knowledge Systems, including tribal knowledge and indigenous and traditional ways of learning, will be covered and included in mathematics, astronomy, philosophy, yoga, architecture, medicine, agriculture, engineering, linguistics, literature, sports, games, as well as in governance, polity, and conservation. Specific courses in tribal ethno-medicinal practices, forest management, traditional (organic) crop cultivation, natural farming, etc., will also be made available. An engaging elective course will also be introduced at the secondary level. (National Education Policy 2020, para 4.27) The policy has encouraged the adoption of multilingual education. It has stressed revitalizing Sanskrit and other classical Indian languages, along with regional languages, to enable students to access original Indian texts and manuscripts. (Khan & Hussain, 2025)

Traditional Indian values and all basic human and Constitutional values (such as seva, ahimsa, swachchhata, satya, nishkam karma, shanti, sacrifice, tolerance, diversity, pluralism, righteous conduct, gender sensitivity, respect for elders, respect for all people and their inherent capabilities regardless of background, respect for environment, helpfulness, courtesy, patience, forgiveness, empathy, compassion, patriotism, democratic outlook, integrity, responsibility, justice, liberty, equality, and fraternity) will be developed in all students from the young stage. All the curriculum and pedagogy will be redesigned in such a way that it will contain Indian and local context and ethos in terms of culture, traditions, heritage, customs, language, philosophy, geography, ancient and contemporary knowledge, societal and scientific needs, indigenous and traditional ways of learning, etc. (National Education Policy 2020, para 4.28)

India has been a centre of World-class universities like Takshashila, Nalanda, Vikramshila, Vallabhi, where a holistic and multidisciplinary education was pursued by the students. Ancient Indian literary works such as Banabhatta's Kadambari described a good education as knowledge of the 64 Kalaas or arts, that where not only subjects, such as singing and painting, but also 'scientific 'fields, such as chemistry and mathematics, 'vocational ' fields such as carpentry and clothes-making, 'professional 'fields, such as medicine and engineering, as well as ' soft skills' such as communication, discussion, and debate. These 64 arts will be included in the curriculum as "liberal arts" (Ministry of Education, 2020, para 11.1). To attain holistic and multidisciplinary education, curricula of all HEIs shall include credit-based courses and projects in the areas of community engagement and service, environmental education, and value-based education. Value-based education will include the development of humanistic, ethical, Constitutional, and universal human values of truth (satya), righteous conduct (dharma), peace (shanti), love (prem), nonviolence (ahimsa), scientific temper, citizenship values, and also life skills that will empower learners to become peaceful, tolerant and inclusive.

Indian Knowledge System as a solution to contemporary problems:

India has a rich tapestry of ancient knowledge and wisdom that has been passed over for millennia in the form of IKS. The Indian Knowledge System encompasses a wide array of traditional knowledge, including science, mathematics, medicine, spirituality, and agriculture, among others, that can be integrated with modern knowledge to provide sustainable solutions to the world's contemporary problems. It provides a holistic and comprehensive framework that emphasizes sustainability, ethics, and community well-being, enabling the development of innovative solutions to modern global challenges and the achievement of the Sustainable Development Goals (SDGs).

- Sustainable and environmental issues like climate change, pollution, resource depletion, and biodiversity loss can be resolved through the Indigenous knowledge system, deeply rooted in wisdom. Ancient texts, such as the Arthashastra, offer sustainable practices like organic farming, crop rotation, and water harvesting to promote the sustainable use of land. Another scripture, the Vrishyajurveda, predates modern agricultural practices and offers insights into sustainable and holistic plant care. It covers aspects like seed selection, soil preparation, irrigation, nutrient management, and disease control.
- Health and well-being are very important for a productive and prosperous life. The Indian Knowledge System offers a holistic approach to health and well-being, recognizing the interconnectedness of the physical, mental, emotional, and spiritual aspects of an individual. (Verma, 2024). Yoga and meditation help in treating physical and mental illness without the use of medication. Both practices offer holistic approaches to managing stress, anxiety, and other mental health challenges, providing individuals with effective, non-invasive techniques to foster emotional resilience, clarity, and balance. Extensive research supports the effectiveness of yoga and mindfulness in dealing with stress management, anxiety and depression, and Post-Traumatic Stress Disorder (PTSD). Controlled breathing, or *Pranayam,* helps in regulating the body's stress response and promotes relaxation. Incorporation of yoga and mindfulness in workplaces will

promote workplace wellness and improve work culture. (Brahmbhatt and Kumavat, 2024)

- Ayurveda, a traditional Indian system of medicine, rooted in the Charaka Samhita and Sushruta Samhita, emphasizes holistic well-being by balancing the mind, body & spirit. Unlike the modern individual's symptom-based technique, Ayurveda primarily focuses on preventing disease, promoting health & treating illness through natural remedies, balanced lifestyle & personalized approach (R.Sunil, 2025). A recent study reveals that combining Ayurveda practices with modern sandfly control methods shows great potential in fighting the Chandipura virus transmitted by sandflies. (Dixit, 2024)
- The Indian knowledge System offers unique insights into political administration and governance, highlighting ethics, decentralization, and community well-being, contrasting with modern systems' focus on bureaucracy and legal frameworks. Kautilya's Arthashastra is a Sanskrit text that illustrates the golden rule for ethical governance, economic policy, and diplomacy. It discusses how dharma (duty), Artha (wealth), and kama(desire) work together in moulding an individual's personality and provides insights for modern leadership. A 2025 paper by Raval et.al applies Arthashastra's leadership principles to modern management, using the Vedic personality framework to enhance organisational efficiency. (Rawan, 2025)
- Principles such as *Dharma* (righteous duty), *Ahimsa* (non-violence), and *satya* (truth) provide a logical framework for making ethical decisions in today's complex world. These values promote integrity, empathy, and social responsibility required for becoming a responsible citizen. (Patel, 2024) For instance, the story "Panchatantra" provides valuable lessons in making an ethical decision in conflict resolution.
- Vedic mathematical techniques offer rapid calculation methods and intuitive problem-solving approaches that could revolutionize STEM education. It can help in addressing modern challenges like math anxiety, cognitive development, and the pressure of timed examinations. Also, mental calculation techniques in

Vedic mathematics can reduce rote learning in mathematics and reduce technology dependency.

- Integration of the Indian Knowledge System into Global Citizenship Education developed a deeper understanding of interconnectedness, cultural diversity & ethical reasoning, which are essential components in addressing global challenges such as poverty, climate change, and human rights. By incorporating IKS into global Citizenship Education, schools can cultivate a more inclusive, sustainable & ethically aware generation of global citizens.
- Artificial Intelligence is transforming every aspect of human life- from communication and healthcare to finance and governance. While it leads the world toward progress and innovation, it also raises concerns regarding ethics, fairness, and human well-being. Indian values like Dharma (duty), ahimsa (non-violence) & seva (selfless service) can provide much-needed ethical grounding for the development and deployment of AI. Designing AI systems embedded with the database of "Dharma" can promote fairer outcomes. Incorporation of principles of "ahimsa" can promote non-harming and empathy in AI decisions in sensitive domains like healthcare or law enforcement. AI tools rooted in "Seva" can support human workers rather than replacing them. Hence, we can say that such AI should be developed that is not just intelligent but also wise. (Agrawal, 2025)
- IKS can catalyze the social and economic development of the country. Research has affirmed that when integrated effectively into modern MSMEs, it can drive sustainable development, economic resiliency, and self-reliance, aligning with the vision of Aatmanirbhar Bharat. For instance, the Bamboo enterprise in Tripura noticed a revival with merchants being sold across India & exported worldwide. Agro-based MSMEs in Sikkim have attracted consumers both domestically and globally through their top-rated organic products. (Mahajan, 2024)
- Epics like the Ramayan and the Mahabharta safeguard values, ethics, cultural, and societal archetypes through storytelling. UNESCO's recognition of Indian

traditions like yoga and classical dance ensures cultural preservation and global appreciation, promoting India in a global world. NEP 2020 has proposed the integration of IKS in the school curriculum so that the young generation can be conscious of their cultural heritage.

Conclusion:

It is well said that "India is a golden bird" because it has a rich reservoir of knowledge, culture, and traditions that have developed through millennia in the form of the Indian Knowledge system. As we have seen that IKS has the potential to deal with the persisting global challenges such as poverty, environmental sustainability, health & well-being, Artificial Intelligence, etc., it is our prime responsibility to preserve such knowledge, culture, and values so that our future generation can be aware of it and can use it effectively for a harmonious and prosperous life. IKS provides a roadmap that helps in achieving the dream of Viksit Bharat @ 2047.

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