Integrating Indigenous Knowledge Systems (IKS) into India's National Education Policy 2020: A Path to Holistic Education

Dr. Yogendra Kumar
Associate Professor, Govt. Girls College, Ajmer

Abstract

The National Education Policy 2020 (NEP 2020) marks a major change in India's education system, highlighting the importance of integrating Indigenous Knowledge Systems (IKS) to create a learning environment that is culturally connected and holistic. This article explains what IKS means in the Indian setting, its history and philosophy, and how it is included in NEP 2020 at both school and higher education levels. It looks at teaching methods, examples such as the 'Bharatiya Khel' programme and university-based IKS Centres, and possible benefits such as preserving culture and promoting sustainable living. It also discusses challenges like limited resources and concerns about cultural bias. Finally, it gives suggestions for better implementation, concluding that combining IKS with modern education can strengthen future generations while protecting India's heritage.

Key words: *Indigenous Knowledge Systems, education, policy, innovation, curriculum*

Introduction:

For many years, India's education system has been shaped by colonial influence, often giving more importance to Western ways of thinking than to indigenous traditions. The NEP 2020, approved in July 2020, aims to change this by encouraging education based on Indian values, heritage, and knowledge traditions. Indigenous Knowledge Systems, covering wisdom from the Vedas to tribal customs, are seen as essential for building national pride, encouraging innovation, and supporting sustainable development. The policy aims to create a flexible and inclusive system that connects traditional and modern learning. This article explores how NEP 2020 uses IKS to create a balance between old and new approaches, helping students to face global challenges with locally grounded solutions.

Defining Indigenous Knowledge Systems (IKS):

In India, Indigenous Knowledge Systems refer to the deep and varied knowledge developed over thousands of years by local communities. This includes philosophy, science, art, and sustainable living practices unique to the country's cultures and environments. IKS involves knowledge gained through observation, experience, and careful study, in fields such as astronomy, mathematics, medicine (Ayurveda), architecture (Vastu Shastra), and languages. It is often passed down orally or through practice, and it blends science with spiritual, moral, and environmental values.

IKS is constantly evolving. It includes tribal healing methods, forest management, organic farming, and traditional crafts, all reflecting a respectful relationship with nature. In education, IKS supports holistic learning by linking different areas of knowledge and teaching values such as sustainability and community well-being.

Historical and Philosophical Foundations

IKS in India dates back to the Vedic period (1500–500 BCE), when texts like the Rigveda and Upanishads developed ideas about philosophy, the universe, and ethics. Ancient universities such as Takshashila and Nalanda offered wide-ranging learning, from sciences to arts and crafts. These centres drew scholars from around the world until colonial rule weakened local systems.

The philosophy behind IKS is based on ideas such as unity (advaita), living in balance with nature, and ethical conduct. Teachings from the Bhagavad Gita on duty (dharma), non-violence (ahimsa), and truth (satya) stress the connection between humans, nature, and the cosmos. Thinkers like Mahatma Gandhi and Rabindranath Tagore later called for reviving IKS to promote self-reliance, an idea reflected in NEP 2020's vision.

NEP 2020: Overview and Policy Framework

NEP 2020 is India's first full education policy in over three decades. It aims to transform the system so it is more flexible, multidisciplinary, fair, and future-focused. It sets goals for improving enrolment, skills, and technology use. A key aim is to build an "India-centred education system" that draws from the country's heritage while supporting sustainability and fairness.

The policy clearly states that India's ancient and timeless knowledge should guide education. This means weaving IKS into the curriculum so learning is connected to local contexts and culture, while also helping meet the United Nations Sustainable Development Goals.

Provisions for IKS in NEP 2020

1. School Education Level

a. Curriculum Integration

Contextual Learning – NEP 2020 directs that school curricula should be "rooted in the Indian and local context" across all subjects. This means mathematics, science, social studies, art, and physical education will draw examples from Indian traditions.

Example: Teaching geometry alongside Vedic mathematics, or astronomy with references to Aryabhata's work.

Subject Examples:

Mathematics: Vedic maths, traditional counting systems.

Science: Ancient Indian astronomy, metallurgy, and agricultural techniques.

Health and Wellness: Yoga, Ayurveda, naturopathy basics.

Art and Craft: Weaving, pottery, and regional art forms.

b. Electives and Special Modules

Secondary schools are encouraged to offer IKS-based electives, such as:

Organic farming and natural resource management.

Tribal medicinal practices.

Indian philosophy and ethics.

These electives are designed for hands-on learning and local relevance.

c. Cultural Exchange Programmes

'Ek Bharat Shrestha Bharat' programme – Students visit different states to learn about their languages, crafts, cuisine, and heritage sites.

Encourages inter-state understanding and appreciation of India's cultural diversity.

d. Vocational Education (Grades 6–8 onwards)

NEP 2020 introduces vocational exposure from middle school, with at least 10 days of internships with local experts and artisans. Skills include pottery, handloom weaving, carpentry, gardening, or indigenous food processing. Selection of trades is based on local community consultation, ensuring relevance.

e. Indigenous Games and Physical Education

Promotion of traditional Indian games (e.g., Kabaddi, Kho-Kho, Mallakhamb) in physical education. Linked to skill-building in teamwork, agility, and strategic thinking.

2. Higher Education Level

a. Multidisciplinary Structure

NEP 2020 models universities after ancient Indian learning centres like Nalanda and Takshashila, promoting multiple disciplines under one institution.

IKS subjects are embedded into credit-based programmes, meaning even science or engineering students can study IKS modules.

b. University Grants Commission (UGC) Mandates

UGC requires universities to offer IKS courses as part of their curriculum. Provision for minor degrees in fields such as: Indology, Indian philosophy, Sanskrit and classical languages, Traditional arts and crafts, AYUSH systems (Ayurveda, Yoga, Unani, Siddha, Homeopathy)

c. Establishment of IKS Centres

IKS Centres are to be set up in universities and research institutions.

Functions: Conduct research on ancient texts, manuscripts, and traditional practices.

Develop documentation of tribal and folk knowledge. Offer short-term courses and workshops.

Facilitate community-university partnerships.

d. Research and Innovation

Funding to support projects combining traditional knowledge with modern science.

Examples:

Integrating Ayurveda with biomedical research.

Using traditional water-harvesting methods in climate adaptation studies.

e. Internationalisation

Universities to offer IKS-based courses to foreign students.

AYUSH medicine, yoga, Indian classical music, and cultural studies highlighted as fields with global appeal.

f. Agriculture and Rural Studies

Agricultural universities to include traditional farming practices in their syllabus.

Fieldwork with farmers practising organic or indigenous methods.
Use of indigenous seed varieties and water conservation techniques.

Teacher Training and Pedagogy

Massive Teacher Orientation – NEP 2020 targets training 1.5 million teachers by 2025 on IKS-based content. Use of SWAYAM MOOCs for upskilling teachers in Indian heritage, values, and pedagogy. Inclusion of local resource persons (village elders, artisans, folk artists) in teaching.
Emphasis on storytelling, project-based learning, and experiential education.

Technology and Digital Platforms

Development of digital repositories of IKS materials (texts, videos, interactive modules).
Expansion of National Digital Library to include resources in multiple Indian languages.
Use of virtual reality (VR) and augmented reality (AR) for immersive cultural experiences (e.g., virtual Nalanda tours).

Vocational and Skill-based Outcomes

Link IKS learning with entrepreneurship opportunities: Heritage tourism, Handicraft exports, AYUSH wellness centres. Encourage start-ups using traditional knowledge for eco-friendly product development.

Teaching and Curriculum

To support IKS, NEP 2020 focuses on training teachers in traditional knowledge and teaching methods. The UGC plans to train 1.5 million teachers by 2025. Online courses through SWAYAM help teachers learn about IKS content and pedagogy.
Learning methods include storytelling, art-based activities, and using local experts as instructors. The idea is to make education more practical, enjoyable, and connected to students' surroundings.

Benefits

Bringing IKS into education can strengthen cultural identity, improve critical thinking and ethics, and promote sustainable lifestyles. It can reduce the gap between rural and urban areas, support marginalised communities, and create economic opportunities in sectors like traditional medicine and heritage tourism.

Challenges

Problems include a lack of funds for teacher training and facilities, especially in rural areas. Some critics worry that IKS may encourage narrow cultural views or unscientific ideas if not carefully managed. There are also difficulties in standardising teaching across India's many regions and traditions.

Recommendations

To make IKS integration work, the curriculum should be redesigned with input from teachers, experts, and communities. Teacher training should be mandatory and well-supported.

Funding should be set aside for IKS research and centres. Local and tribal knowledge should be documented, and pilot projects tested before large-scale adoption. Partnerships between universities and local communities can ensure authenticity.

Conclusion:

The inclusion of IKS in NEP 2020 is a chance to blend India's ancient wisdom with the needs of the present and future. If challenges are addressed and the approach remains inclusive, this can create a well-rounded education system that respects heritage and prepares students for the modern world.

References:

Government of India. (2020). National Education Policy 2020. Ministry of Education. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

Kumar, A. (2020). Indian knowledge systems. University of Lucknow. https://www.lkouniv.ac.in/site/writereaddata/siteContent/202004120632194475nishi_Indian_Knowledge_Systems.pdf

Mishra, S. (2023). The Indian knowledge system and indigenous pedagogies. Journal of the University of Jharkhand, 1(1). https://journal.iujharkhand.edu.in/June-2025/The-Indian-Knowledge-System.html

Sharma, P. (2024). Integrating traditional Indian knowledge system in education. International Journal of Computer Science and Publication, 24C1037. https://rjpn.org/ijcspub/papers/IJCSP24C1037.pdf

Singh, V. (2025). Implementing NEP 2020 recommendations: Promoting the Indian Knowledge System (IKS). International Journal of Research in Arts and Humanities, 785. https://www.ijrah.com/index.php/ijrah/article/view/785