

# **Integration of Indian Knowledge System in Higher Education Curricula under NEP 2020: Opportunities, Challenges, and Global Relevance**

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## **Abstract**

The **National Education Policy (NEP) 2020** represents a landmark in India's educational transformation, offering a comprehensive vision that seeks to align higher education with the principles of **multidisciplinarity, value-based learning, and rootedness in indigenous traditions**. Among its most innovative dimensions is the formal recognition and curricular integration of the **Indian Knowledge System (IKS)**, encompassing disciplines such as Ayurveda, Yoga, Vedic mathematics, classical philosophy, literature, and traditional sciences. This initiative underscores the importance of re-establishing India's civilizational heritage as a meaningful contributor to global intellectual discourse while simultaneously addressing national educational aspirations.

This paper critically examines the **opportunities, challenges, and global relevance** of embedding IKS into higher education curricula under the NEP 2020 framework. It highlights the multiple opportunities created by IKS integration, such as preserving cultural identity, promoting holistic learning, fostering sustainability, encouraging interdisciplinary research, and strengthening India's role as an international education hub. At the same time, it acknowledges the **institutional and practical hurdles**, including the lack of standardized curricula, limited faculty expertise, insufficient empirical validation of traditional practices, funding constraints, and questions of global recognition.

The analysis also situates India's efforts within a **comparative international context**, drawing parallels with the integration of indigenous knowledge systems in countries like New Zealand, Canada, and Australia. These comparative insights reveal both the potential and complexities of embedding traditional knowledge in modern education systems.

Ultimately, the study emphasizes that the success of NEP 2020's vision depends on the creation of robust frameworks that combine policy support, academic innovation, and global collaboration. By doing so, India can not only preserve its intellectual traditions but also project them as **globally relevant resources for sustainable development, ethical governance, and intercultural academic exchange**.

**Keywords:** National Education Policy 2020, Indian Knowledge System, Higher Education, Curriculum, Global Relevance, Indigenous Pedagogy.

## 1. Introduction

Education policies across the world continually adapt to changing **socio-cultural, economic, and global imperatives**, shaping systems that respond to both national priorities and international demands. In this context, India's **National Education Policy (NEP) 2020** signifies a transformative reform, proposing a paradigm shift from conventional instruction to **holistic, multidisciplinary, and inclusive learning models**. One of its most distinctive features is the explicit emphasis on integrating the **Indian Knowledge System (IKS)** within higher education curricula.

IKS encompasses a wide spectrum of disciplines, including **traditional sciences, literature, philosophy, arts, Ayurveda, Yoga, Vedic mathematics, and sustainable living practices**, reflecting India's civilizational depth and intellectual diversity. The inclusion of these traditions in mainstream education is envisioned not merely as an act of preservation but as a means of **re-contextualizing ancient wisdom for contemporary relevance**.

In an era defined by rapid globalization, technological disruptions, and mounting ecological and ethical challenges, knowledge systems rooted in indigenous traditions hold immense potential. They offer alternative frameworks for **sustainability, mental and physical well-being, social equity, and ethical governance**, thereby complementing modern scientific and professional education. By promoting IKS, NEP 2020 positions India to contribute uniquely to **global academic discourse**, reinforcing both cultural identity and international knowledge exchange.

## 2. Review of Literature

Scholarly research consistently underscores the significance of **indigenous knowledge systems** in promoting sustainable development, value-based pedagogy, and the preservation of cultural identity. Sharma (2018) emphasizes that indigenous traditions provide holistic frameworks for environmental stewardship and community-centered learning, while Singh (2020) highlights their role in fostering ethical and inclusive educational practices. Recognizing this, the **University Grants Commission (UGC, 2021)** has formally acknowledged the **Indian Knowledge System (IKS)** as a vital dimension of curriculum enrichment, recommending its integration into higher education for cultural preservation and academic diversification.

Globally, several countries have advanced similar initiatives. For instance, New Zealand has successfully embedded **Maori knowledge and language** within its national curriculum, while Canada has integrated **First Nations perspectives** into higher education to support cultural resilience and reconciliation (Smith, 2019). These examples demonstrate that indigenous knowledge can coexist with modern educational models, contributing to both national identity and international academic discourse.

Despite these developments, scholarly engagement with the **systematic implementation of IKS within the framework of NEP 2020** remains limited. Most existing studies focus on theoretical importance rather than practical challenges of integration. This research seeks to bridge that gap by examining the opportunities, barriers, and global relevance of embedding IKS into India's higher education curricula.

### 3. Objectives of the Study

1. To examine the provisions of NEP 2020 for integrating IKS into higher education curricula.
2. To identify opportunities created by IKS integration for students, institutions, and society.
3. To explore the challenges in institutionalizing IKS in mainstream academia.
4. To assess the global relevance of India's indigenous knowledge in comparison with international practices.
5. To propose policy recommendations for effective implementation.

### 4. Research Methodology

This study adopts a **qualitative and exploratory research design** to analyze the integration of the Indian Knowledge System (IKS) into higher education as envisioned by the National Education Policy (NEP) 2020. The choice of this approach is guided by the need to explore emerging issues, evolving practices, and policy implications in a largely under-researched domain. The methodology follows a structured framework as outlined below:

#### 1. Problem Identification

- The research begins by identifying the central problem: the limited scholarly exploration of systematic IKS integration within the NEP 2020 framework.

#### 2. Data Collection

- The study draws on **secondary data sources**, including NEP 2020 policy documents, University Grants Commission (UGC) guidelines, academic books and journal articles, government reports, and international best practices.

#### 3. Comparative Case Analysis

- Global experiences, particularly from **New Zealand, Canada, and Australia**, are examined to understand how indigenous knowledge has been embedded in higher education curricula worldwide.

#### 4. Data Analysis

- A **thematic content analysis** method is employed to identify recurring themes such as opportunities, challenges, and global parallels.

#### 5. Interpretation

- Findings are interpreted to highlight gaps in policy execution, areas of potential innovation, and the global significance of India's IKS initiatives.

#### 6. Conclusion and Policy Implications

- The analysis culminates in recommendations aimed at strengthening institutional frameworks, promoting global collaborations, and enhancing the academic credibility of IKS.

This structured methodology provides both **depth and clarity**, ensuring a systematic exploration of IKS within NEP 2020

## 5. NEP 2020 and Indian Knowledge System (Policy Provisions)

The NEP 2020 underscores the need to integrate India's knowledge heritage into curricula across disciplines. Key provisions include:

- **Multidisciplinary education:** Universities are encouraged to blend modern science with traditional disciplines like Ayurveda, Yoga, and Vedic mathematics.
- **Research and innovation centers:** Establishment of National Mission for IKS to promote research in traditional knowledge.
- **Language and literature:** Emphasis on Sanskrit and classical Indian languages for academic study.
- **Ethics and values:** Infusing Indian philosophical traditions for holistic development.
- **Global outreach:** Positioning IKS as a pillar of India's soft power in international education diplomacy.

## 6. Opportunities in Integrating IKS

1. **Preservation of Cultural Heritage:** Embedding IKS safeguards ancient wisdom for future generations.
2. **Holistic Learning:** Ayurveda, Yoga, and Indian philosophy contribute to physical, mental, and spiritual well-being.
3. **Interdisciplinary Research:** Fusion of traditional medicine with biotechnology or classical logic with AI enriches academic inquiry.
4. **Global Competitiveness:** IKS-based programs enhance India's appeal as an international education hub.
5. **Sustainability Practices:** Ancient environmental ethics and agricultural practices offer models for ecological balance.
6. **Skill Development:** Indigenous arts, crafts, and technologies open avenues for entrepreneurship.
7. **Soft Power Diplomacy:** Showcasing IKS globally strengthens India's cultural influence.

## 7. Challenges in Implementation

**1. Standardization Issues-**A major challenge in implementing the Indian Knowledge System (IKS) is the absence of a **uniform curriculum framework** across institutions. Different universities design their courses independently, leading to variation in content, teaching methods, and evaluation standards. This lack of standardization weakens the credibility and acceptance of IKS in mainstream education. Without clear guidelines, institutions struggle to balance traditional knowledge with modern academic expectations, making it difficult to ensure consistency, quality, and recognition at both national and global levels.

**2. Faculty Preparedness-**The shortage of adequately trained educators poses a serious barrier. Teaching IKS requires **dual expertise**: mastery of traditional knowledge systems like Ayurveda, Yoga, or Vedic mathematics, along with familiarity with modern pedagogical tools and scientific reasoning. However, most faculty members are trained in only one of these domains. The absence of structured faculty

development programs further aggravates this issue. As a result, courses risk being taught either superficially or in isolation, undermining both academic rigor and student engagement.

**3. Perceived Relevance-**A common concern among students and employers is the **practical applicability of IKS** in contemporary careers. While modern industries demand technical and global competencies, IKS is often perceived as traditional and less market-oriented. This skepticism affects student enrollment in such courses and discourages institutional investment. Without visible career pathways, internships, or industry linkages, IKS-based education risks being undervalued. Changing these perceptions requires not only awareness campaigns but also evidence of employability and entrepreneurial opportunities emerging from IKS disciplines.

**4. Research Gaps-**A significant limitation lies in the **scarcity of empirical research** validating traditional practices through modern scientific methodologies. For instance, while Ayurveda and Yoga enjoy global recognition, many of their principles remain under-researched in formal scientific terms. The absence of robust peer-reviewed studies and quantitative evidence reduces credibility in the academic and professional domains. This gap creates hesitation in integrating IKS into mainstream education. Bridging it requires interdisciplinary collaborations, advanced research funding, and partnerships with scientific communities to test, adapt, and contextualize traditional knowledge.

**5. Resource Constraints-**The successful promotion of IKS demands **substantial investment in funding and infrastructure**, which currently remains insufficient. Many institutions lack specialized research centers, libraries, digital archives, and laboratories dedicated to IKS. Financial limitations restrict research initiatives, publication opportunities, and international collaborations. Furthermore, underfunded programs struggle to attract quality faculty and students. Without consistent government and private sector support, the vision of making IKS a strong pillar of NEP 2020 risks being undermined, leaving it confined to policy rhetoric rather than practical execution.

**6. Integration Barriers-**Integrating IKS with modern disciplines is intellectually and structurally challenging. Traditional epistemologies often follow holistic, spiritual, or experiential methods, whereas modern sciences rely on empirical, evidence-based paradigms. Bridging these two approaches requires carefully designed methodologies that respect both traditions. However, academic communities often remain divided, with one side skeptical of the other. Such resistance hampers curriculum design, interdisciplinary projects, and student engagement. True integration requires openness, dialogue, and frameworks that harmonize rather than segregate different ways of knowing.

**7. Global Recognition-**For IKS to gain **wider international acceptance**, it must align with global academic standards and accreditation frameworks. Despite Yoga and Ayurveda receiving global appreciation, structured IKS courses are rarely recognized by international universities or accreditation agencies. This lack of recognition affects student mobility, research collaborations, and the global positioning of Indian higher education. To address this, India must work towards international standard-setting, evidence-based validation, and partnerships with global institutions to ensure that IKS-based programs are respected and valued abroad.

## 8. Comparative & Global Relevance

Countries like **New Zealand, Australia, and Canada** have successfully integrated indigenous traditions into education, contributing to cultural resilience and innovation. Similarly, India's IKS, if systematically incorporated, can serve as a model for **knowledge pluralism** in global academia. Indian contributions such as **Yoga and Ayurveda** already enjoy international recognition, suggesting that structured educational frameworks could further enhance global outreach.

## 9. Findings and Discussion

The findings of this study indicate that the integration of the Indian Knowledge System (IKS) under NEP 2020 carries the potential to transform higher education into a model that is **globally relevant yet locally grounded**. By embedding traditional knowledge in mainstream curricula, India can preserve its cultural and intellectual heritage while simultaneously contributing to contemporary debates on sustainability, holistic well-being, and ethical governance. Such integration offers a pathway to re-establish India as a significant contributor to global academic discourse.

However, the study also highlights several pressing challenges that, if left unaddressed, could weaken this transformative agenda. Issues such as lack of standardization, insufficient research validation, limited resources, and skepticism regarding employability remain critical barriers. To overcome these, the findings suggest a **multi-pronged strategy** involving collaborative research initiatives, structured **faculty training programs**, and **international partnerships** with universities and research institutions.

Equally important is the integration of IKS within a **multidisciplinary framework**, allowing it to intersect with modern sciences, technology, and management studies. This not only strengthens cultural preservation but also fosters scientific innovation and global acceptance. Overall, the study concludes that successful implementation requires vision, investment, and sustained institutional commitment.

## 10. Policy Implications and Suggestions

- Develop **standardized curricula** with modular flexibility for IKS subjects.
- Launch **faculty development programs** to build expertise in traditional knowledge.
- Encourage **empirical research** validating IKS through modern scientific methods.
- Strengthen **international collaborations** to enhance credibility and global acceptance.
- Provide **government and private funding** for IKS research centers and digital repositories.
- Promote **industry linkages** to ensure employability and entrepreneurial opportunities for students.

## 11. Policy Implications and Suggestions

The integration of the Indian Knowledge System (IKS) into higher education under NEP 2020 has significant **policy implications** for academic institutions, government agencies, and international collaborators. To realize its full potential, a **strategic and multi-level approach** is necessary. First, the development of **standardized curricula** across universities is essential to ensure consistency, academic



rigor, and credibility. Modular course structures that allow flexibility for interdisciplinary learning can enhance the applicability of IKS across various domains.

Second, **faculty development programs** should be prioritized to equip educators with expertise in both traditional knowledge and contemporary pedagogical methods. This includes training in research methodologies, digital tools, and interdisciplinary teaching approaches. Third, **research promotion and validation** are critical; empirical studies must be conducted to scientifically substantiate traditional practices and integrate them with modern disciplines.

Fourth, strengthening **infrastructure and funding** is imperative, including dedicated IKS research centers, digital repositories, and access to global academic networks. Fifth, fostering **international collaborations** can enhance global recognition, accreditation, and student mobility, positioning India as a leader in indigenous knowledge education.

Finally, policy measures should focus on **industry linkages and employability**, demonstrating the practical relevance of IKS in careers, entrepreneurship, and innovation. By implementing these recommendations, India can transform IKS from a traditional repository into a **dynamic, globally recognized, and sustainable knowledge system**, fulfilling the vision of NEP 2020 and contributing meaningfully to both national and international academia

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