#### THE VISION OF NEP 2020:

Integrating Bharatiya Knowledge System in Textbooks

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Vidya Bharati Uchcha Shiksha Sansthan



VIDYA BHARATI UCHCHA SHIKSHA SANSTHAN

in association with

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### The Vision of NEP 2020: Integrating Bharatiya Knowledge System in Textbooks

**Editor: Rajiv Kumar Singh** 

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#### **FOREWORD**

This book, *The Vision of NEP 2020: Integrating Bharatiya Knowledge System in Textbooks*, is an outcome of sustained efforts of Vidya Bharati Uchcha Shikhsha Sansthan National Institute of Open Schooling, Noida towards implementation of various recommendations of NEP 2020 in School Curriculum. With the announcement of National Education Policy 2020, government agencies and pioneer organizations working in the field of education have come into action to work on National Curriculum Framework and State Curriculum Frameworks. These endeavours are seeing huge participation from intellectuals and stakeholders in the academic fields to prepare content and design school textbooks based on the mandate of NEP 2020. This book is a germane contribution in this direction and provides a strategic plan towards development of syllabi and new textbooks in the Bharatiya Knowledge System to be developed for all stages and classes.

In developing this volume, Vidya Bharati Uchcha Shikhsha Sansthan has taken a pioneer initiative towards accomplishing the intent of NEP in re-connecting and re-establishing the foundations of age-old Indian Education System and connect it with global pedagogical developments. The book provides lucid insights into the knowledge traditions of India and working towards pathways including this rich reservoir and the impact of introducing it in school syllabi for preparing students future ready yet strongly rooted in Indian values.

This judiciously written volume is an integral contribution to the countrywide efforts towards implementation of National Education Policy 2020. I am particularly pleased to provide an entry point to this volume and welcoming all policy makers, academics, scholars, authors and readers. Last but not the least, I would like to express our gratitude to all our partner institutions, collaborators and particularly IKS Division of MoE, AICTE, GoI and National Institute of Open Schooling, Noida for supporting us in this project.

#### Prof. Kailash Chandra Sharma

President, Vidya Bharati Uchcha Shiksha Sansthan

#### **ACKNOWLEDGEMENT**

The idea of writing this approach paper was conceived during the "Preparatory Workshops on Textbooks" organized in January-February 2022 by Vidya Bharati Uchcha Shikhsha Sansthan (VBUSS) to develop a roadmap and strategies of restructuring the concept of 3C's i.e., curriculum, content and comprehension of the subject matter in tune with the recommendations of National Education Policy, 2020. These initial deliberations helped finalize the further course of action involving the organization of national/ international workshops and conferences on different subjects so as to bring together subject experts and resource persons for subsequent discussions and recommendations. With this in mind, the Two Days National Symposium on "Assimilating Indian Knowledge System in Mainstream Education: Mandate of NEP 2020" was organized on 5-6 May, 2022. The symposium was a collaborative event for which, on behalf of Vidya Bharati Uchcha Shikhsha Sansthan, we would like to express our heartfelt gratefulness to National Institute of Open Schooling (NIOS), Noida for collaborating with us in undertaking this mammoth task.

We appreciate the support and encouragement of Prof. Saroj Sharma, Chairperson, NOIS and Dr. Rajiv Kumar Singh, Director, NIOS who has been very encouraging and accessible throughout this endeavor. We would like to thank the entire faculty, staff and students of NIOS for their coordination, organization and participation in the two-day symposium that laid the foundation stone for this book.

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#### **PREFACE**

The history of Bharatvarsha is replete with a plethora of knowledge created both in philosophical and practical aspects of life. Indian philosophers and scientists have contributed to almost all walks of life, from the polity, economy, taxation, commerce, astronomy, and ship-building to subjects like arts, music, drama, dance, etc. The multi-dimensional education offered to students in the *Gurukulas* through *Guru Shishya Parampara* and prestigious universities like Nalanda, Takshashila, Vikramshila, etc., focused on developing the overall holistic personality of the students. In this backdrop, **Vidya Bharati Uchcha Shiksha Sansthan (VBUSS)** and the National Institute of Open Schooling jointly organised a **2 days** workshop titled "Assimilating Indian Knowledge System in Mainstream Education: Mandate of NEP 2020" at NIOS Campus, Noida on 5-6 May 2022.

The National Education Policy 2020 has laid a roadmap for 21st-century India as it enters the 'Amritkal'. The NEP 2020 envisions emphasizing our traditional knowledge systems so that the spirit of India is re-invoked and transferred to our upcoming generations. Indian belief systems and knowledge traditions are ever-expanding as they constantly search for the truth. They are not conformists in nature; therefore, there is no contradiction between them and modern-day science. The previous educational policies in India did not focus much on this aspect of Indianness. Thus, the country's youth did not feel proud of their identity as Indians. The NEP 2020 wants to address the issues our educational policies have suffered thus far.

NEP 2020 intends to acquaint our younger generations with our glorious traditions so that they become self-confident and take pride in their ancient past that is intrinsically connected to their futuristic development. The final products thus coming out of our educational institutions would then play an essential role for the good of society, nation, and humanity as a whole. Culture enthusiasts, intellectuals, and philosophers worldwide often become greatly inspired by the Indian knowledge system. However, this excellent knowledge repository has been systematically neglected over the years from the Indian curricula and textbooks. As a result, the youth do not seem to be connected much to the spirit of the knowledge-based civilization in India. It is, therefore, of utmost importance to explore 'Bharatiya Gyaan Parampara' and promote cultural awareness and competencies among children and young adults to inculcate a sense of positive identity, pride, and belongingness towards Indian cultural traditions and heritage. While taking Indian knowledge traditions forward, we can also fulfil New India's aspirations. It will play an essential role in realizing the Hon'ble Prime Minister's vision of attaining 'self-reliance' in the next 25 years leading to celebrating 100 years of India's Independence in 2047.

The workshop was a voluntary and collaborative initiative of 'Vidya Bharati Uchcha Shiksha Sansthan' and the 'National School of Open Learning' to have a fruitful brainstorming on textbook writing, explicitly focusing on senior secondary standards. The workshop focused on the deliberations regarding the philosophical underpinnings of IKS, its intellectual traditions, the rich content it offers, and how that can be shared with today's generation. The workshop also aimed to provide a platform for the best practitioners in this field across the country to create a mutually beneficial network and learn from each other. The national symposium was attended by esteemed government officials, educational experts, academicians, and budding research scholars working in the field.

The workshop gave hands-on training in designing courses/curricula based on Indian knowledge systems. Furthermore, it endeavoured to integrate the IKS in various textbooks of subjects taught at school levels. The brainstorming sessions over two days attempted to orient the delegates to an understanding of the underlying philosophy, selecting the right content, assimilation of content in textbooks, and presentation of the content. The workshop focused on developing how all these inter-connected activities can be effectively implemented. The workshop was structured to accommodate six specific theme-based sessions, one open house discussion, and the customary Inaugural and Valedictory Sessions.

The two-day workshop on 5-6 May 2022 on the Indian Knowledge System essentially aimed at recreating and redeveloping the textual material from our traditional knowledge having contextual relevance and connecting it with the contemporary paradigm. The workshop underlined an urgent need for smooth assimilation of the same in the course curriculum for conservation, promotion, and dissemination of this prodigious hidden wealth of India towards building the resurgent Bharat.



# Section I Mandate of NEP 2020 & Developing New Textbooks

#### NATIONAL EDUCATION POLICY 2020: HIGHLIGHTS<sup>1</sup>

#### Introduction

Education is fundamental for achieving full human potential, developing an equitable and just society, and promoting national development. Providing universal access to quality education is the key to India's continued ascent, and leadership. Universal high-quality education is the best way forward for developing and maximizing our country's rich talents and resources for the good of the individual, the society, the country, and the world.

The world is undergoing rapid changes in the knowledge landscape. With various dramatic scientific and technological advances, such as the rise of big data, machine learning, and artificial intelligence, many unskilled jobs worldwide may be taken over by machines, while the need for a skilled workforce, particularly involving mathematics, computer science, and data science, in conjunction with multidisciplinary abilities across the sciences, social sciences, and humanities, will be increasingly in greater demand.

Education thus, must move towards less content, and more towards learning about how to think critically and solve problems, how to be creative and multidisciplinary, and how to innovate, adapt, and absorb new material in novel and changing fields. Pedagogy must evolve to make education more experiential, holistic, integrated,

<sup>1.</sup> This chapter consists of extracts from NEP 2020

inquiry-driven, discovery-oriented, learner-centred, discussion-based, flexible, and, of course, enjoyable. The curriculum must include basic arts, crafts, humanities, games, sports and fitness, languages, literature, culture, and values, in addition to science and mathematics, to develop all aspects and capabilities of learners; and make education more well-rounded, useful, and fulfilling to the learner.

National Education Policy 2020 is the first education policy of the 21st century and aims to address the many growing developmental imperatives of our country. This Policy proposes the revision and revamping of all aspects of the education structure, including its regulation and governance, to create a new system that is aligned with the aspirational goals of 21st century education, including SDG4, while building upon India's traditions and value systems.

The rich heritage of ancient and eternal Indian knowledge and thought has been a guiding light for this Policy. The pursuit of knowledge (*Inan*), wisdom (*Pragyaa*), and truth (*Satya*) was always considered in Indian thought and philosophy as the highest human goal. The aim of education in ancient India was not just the acquisition of knowledge as preparation for life in this world, or life beyond schooling, but for the complete realization and liberation of the self.

The Indian education system produced great scholars such as Charaka, Susruta, Aryabhata, Varahamihira, Bhaskaracharya, Brahmagupta, Chanakya, Chakrapani Datta, Madhava, Panini, Patanjali, Nagarjuna, Gautama, Pingala, Sankardev, Maitreyi, Gargi and Thiruvalluvar, among numerous others, who made seminal contributions to world knowledge in diverse fields such as mathematics, astronomy, metallurgy, medical science and surgery, civil engineering, architecture, shipbuilding and navigation, yoga, fine arts, chess, and more. Indian culture and philosophy have had a strong influence on the world. These rich legacies to world heritage must not only be nurtured and preserved for posterity but also researched, enhanced, and put to new uses through our education system.

#### Principles of NEP 2020

The purpose of the education system is to develop good human beings capable of rational thought and action, possessing compassion and empathy, courage and resilience, scientific temper and creative imagination, with sound ethical moorings and values. It aims at producing engaged, productive, and contributing citizens for building an equitable, inclusive, and plural society as envisaged by our Constitution.

The fundamental principles relevant to computer education that will guide both the education system at large, as well as the individual institutions within it are:

- Multidisciplinarity and a holistic education across the sciences, social sciences, arts, humanities, and sports for a multidisciplinary world in order to ensure the unity and integrity of all knowledge;
- Creativity and critical thinking to encourage logical decision-making and innovation;
- Extensive use of technology in teaching and learning, removing language barriers, increasing access for *Divyang* students, and educational planning and management;
- Synergy in curriculum across all levels of education from early childhood care and education to school education to higher education;
- A rootedness and pride in India, and its rich, diverse, ancient and modern culture and knowledge systems and traditions;

#### The Vision of NEP 2020

The National Education Policy envisions an education system rooted in Indian ethos that contributes directly to transforming India, that is Bharat, sustainably into an equitable and vibrant knowledge society, by providing high-quality education to all, and thereby making India a global knowledge superpower.

#### SCHOOL EDUCATION

This policy envisages that the extant 10+2 structure in school education will be modified with a new pedagogical and curricular restructuring of 5+3+3+4 covering ages 3-18.

#### Early Childhood Care and Education

Para 1.1 of NEP 2020 states that Universal provisioning of quality early childhood development, care, and education must thus be achieved as soon as possible.

# Foundational Literacy and Numeracy: An Urgent & Necessary Prerequisite to Learning

As per para 2.1 of NEP 2020 the ability to read and write, and perform basic operations with numbers, is a necessary foundation and an indispensable prerequisite for all future schooling and lifelong learning. Para 2.4 of NEP 2020 asserts that on the curricular side, there will be an increased focus on foundational literacy and numeracy - and generally, on reading, writing, speaking, counting, arithmetic, and mathematical thinking - throughout the preparatory and middle school curriculum, with a robust system of continuous formative/adaptive assessment to track and thereby individualize and ensure each student's learning. Specific hours daily - and regular events over the year-on activities involving these subjects will be dedicated to encourage and enthuse students. Teacher education and the early grade curriculum will be redesigned to have a renewed emphasis on foundational literacy and numeracy. Para 2.6 also recommends that A national repository of high-quality resources on foundational literacy and numeracy will be made available on the Digital Infrastructure for Knowledge Sharing (DIKSHA).

Technological interventions to serve as aids to teachers and to help bridge any language barriers that may exist between teachers and students, will be piloted and implemented.

Para 2.8 states that enjoyable and inspirational books for students at all levels will be developed, including through high-quality translation (technology assisted as needed) in all local and Indian languages, and will be made available extensively in both school and local public libraries.

### Curtailing Dropout Rates and Ensuring Universal Access to Education at All Levels

As per NEP 2020 para 3.1, One of the primary goals of the schooling system must be to ensure that children are enrolled in and are attending school.

#### Curriculum and Pedagogy in Schools

# Restructuring school curriculum and pedagogy in a new 5+3+3+4 design

As per para 4.1 of NEP 2020, the curricular and pedagogical structure of school education will be reconfigured to make it responsive and relevant to the developmental needs and interests of learners at different stages of their development, corresponding to the age ranges of 3-8, 8-11, 11-14, and 14-18 years, respectively. The curricular and pedagogical structure and the curricular framework for school education will therefore be guided by a 5+3+3+4 design, consisting of the Foundational Stage (in two parts, that is, 3 years of Anganwadi/pre-school + 2 years in primary school in Grades 1-2; both together covering ages 3-8), Preparatory Stage (Grades 3-5, covering ages 8-11), Middle Stage (Grades 6-8, covering ages 11-14), and Secondary Stage (Grades 9-12 in two phases, i.e., 9 and 10 in the first and 11 and 12 in the second, covering ages 14-18).

Para 4.2 also states that the Middle Stage will comprise three years of education, building on the pedagogical and curricular style of the Preparatory Stage, but with the introduction of subject teachers for learning and discussion of the more abstract concepts in each subject that students will be ready for at this stage across the sciences, mathematics, arts, social sciences, and humanities. Experiential learning within each subject, and explorations of relations among different subjects, will be encouraged and emphasized despite the introduction of more specialized subjects and subject teachers. The Secondary Stage will comprise of four years of multidisciplinary study, building on the subject-oriented pedagogical and curricular style of the Middle Stage, but with greater depth, greater critical thinking, greater attention to life aspirations, and greater flexibility and student choice of subjects.

#### Holistic development of learners

Para 4.4 asserts that the key overall thrust of curriculum and pedagogy reform across all stages will be to move the education system towards real understanding and towards learning how to learn - and away from the culture of rote learning as is largely present today.

# Reduce curriculum content to enhance essential learning and critical thinking

Para 4.5 articulates that Curriculum content will be reduced in each subject to its core essentials, to make space for critical thinking and more holistic, inquiry-based, discovery-based, discussion-based, and analysis-based learning.

#### **Experiential learning**

Para 4.6 of NEP 2020 states that In all stages, experiential learning will be adopted, including hands-on learning, arts-integrated and sports-integrated education, story-telling-based pedagogy,

among others, as standard pedagogy within each subject, and with explorations of relations among different subjects. To close the gap in achievement of learning outcomes, classroom transactions will shift, towards competency-based learning and education. The assessment tools (including assessment "as", "of", and "for" learning) will also be aligned with the learning outcomes, capabilities, and dispositions as specified for each subject of a given class.

#### Empower students through flexibility in course choices

Para 4.9 claims that students will be given increased flexibility and choice of subjects to study, particularly in secondary school.

#### Multilingualism and the power of language

Wherever possible, the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/ mother tongue/local language/regional language. Thereafter, the home/local language shall continue to be taught as a language wherever possible. This will be followed by both public and private schools. High-quality textbooks, including in science, will be made available in home languages/mother tongue. All efforts will be made early on to ensure that any gaps that exist between the language spoken by the child and the medium of teaching are bridged. In cases where home language/mother tongue textbook material is not available, the language of transaction between teachers and students will still remain the home language/mother tongue wherever possible. Teachers will be encouraged to use a bilingual approach, including bilingual teachinglearning materials, with those students whose home language may be different from the medium of instruction. All languages will be taught with high quality to all students; a language does not need to be the medium of instruction for it to be taught and learned well. Para 4.12 states that extensive use of technology will be made for teaching and learning of different languages and to popularize language learning.

Para 4.17 frames that the importance, relevance, and beauty of the classical languages and literature of India cannot be overlooked. Sanskrit, while also an important modern language mentioned in the Eighth Schedule of the Constitution of India, possesses a classical literature that is greater in volume than that of Latin and Greek put together, containing vast treasures of mathematics, philosophy, grammar, music, politics, medicine, architecture, metallurgy, drama, poetry, storytelling, and more (known as 'Sanskrit Knowledge Systems'), written by people of various religions as well as nonreligious people, and by people from all walks of life and a wide range of socio-economic backgrounds over thousands of years. Sanskrit will thus be offered at all levels of school and higher education as an important, enriching option for students, including as an option in the three-language formula. It will be taught in ways that are interesting and experiential as well as contemporarily relevant, including through the use of Sanskrit Knowledge Systems, and in particular through phonetics and pronunciation. Sanskrit textbooks at the foundational and middle school level may be written in Simple Standard Sanskrit (SSS) to teach Sanskrit through Sanskrit (STS) and make its study truly enjoyable.

# Curricular Integration of Essential Subjects, Skills, and Capacities

As per para 4.23, while students must have a large amount of flexibility in choosing their individual curricula, certain subjects, skills, and capacities should be learned by all students to become good, successful, innovative, adaptable, and productive human beings in today's rapidly changing world. In addition to proficiency in languages, these skills include: scientific temper and evidence-based thinking; creativity and innovativeness; sense of aesthetics and art; oral and written communication; health and nutrition; physical education, fitness, wellness, and sports; collaboration and teamwork;

problem solving and logical reasoning; vocational exposure and skills; digital literacy, coding, and computational thinking; ethical and moral reasoning; knowledge and practice of human and Constitutional values; gender sensitivity; Fundamental Duties; citizenship skills and values; knowledge of India; environmental awareness including water and resource conservation, sanitation and hygiene; and current affairs and knowledge of critical issues facing local communities, States, the country, and the world.

Para 4.24 proclaims that concerted curricular and pedagogical initiatives, including the introduction of contemporary subjects such as Artificial Intelligence, Design Thinking, Holistic Health, Organic Living, Environmental Education, Global Citizenship Education (GCED), etc. at relevant stages will be undertaken to develop these various important skills in students at all levels. Para 4.25 claims that mathematics and mathematical thinking will be very important for India 's future and India's leadership role in the numerous upcoming fields and professions that will involve artificial intelligence, machine learning, and data science, etc. Thus, mathematics and computational thinking will be given increased emphasis throughout the school years, starting with the foundational stage, through a variety of innovative methods, including the regular use of puzzles and games that make mathematical thinking more enjoyable and engaging. Activities involving coding will be introduced in Middle Stage.

Para 4.26 enunciates that every student will take a fun course, during Grades 6-8, that gives a survey and hands-on experience of a sampling of important vocational crafts, such as carpentry, electric work, metal work, gardening, pottery making, etc., as decided by States and local communities and as mapped by local skilling needs. A practice-based curriculum for Grades 6-8 will be appropriately designed by NCERT while framing the NCFSE 2020-21. All students will participate in a 10-day bagless period

sometime during Grades 6-8 where they intern with local vocational experts such as carpenters, gardeners, potters, artists, etc. Similar internship opportunities to learn vocational subjects may be made available to students throughout Grades 6-12, including holiday periods. Vocational courses through online mode will also be made available. Bagless days will be encouraged throughout the year for various types of enrichment activities involving arts, quizzes, sports, and vocational crafts. Children will be given periodic exposure to activities outside school through visits to places/monuments of historical, cultural and tourist importance, meeting local artists and craftsmen and visits higher educational institutions in their village/ Tehsil/District/State.

Para 4.27 determines that "Knowledge of India" will include knowledge from ancient India and its contributions to modern India and its successes and challenges, and a clear sense of India's future aspirations with regard to education, health, environment, etc. These elements will be incorporated in an accurate and scientific manner throughout the school curriculum wherever relevant; in particular, 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, conservation. Specific courses in tribal ethno-medicinal practices, forest management, traditional (organic) crop cultivation, natural farming, etc. will also be made available.

Para 4.29 reveals that all curriculum and pedagogy, from the foundational stage onwards, will be redesigned to be strongly rooted in the 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. – in order to ensure

that education is maximally relatable, relevant, interesting, and effective for our students. Stories, arts, games, sports, examples, problems, etc. will be chosen as much as possible to be rooted in the Indian and local geographic context. Ideas, abstractions, and creativity will indeed best flourish when learning is thus rooted.

## National Curriculum Framework for School Education (NCFSE)

Para 4.30 states that the formulation of a new and comprehensive National Curricular Framework for School Education, NCFSE 2020-21, will be undertaken by the NCERT - based on the principles of this National Education Policy 2020, frontline curriculum needs.

#### Transforming Assessment for Student Development

Para 4.34 asserts that the aim of assessment in the culture of our schooling system will shift from one that is summative and primarily tests rote memorization skills to one that is more regular and formative, is more competency-based, promotes learning and development for our students, and tests higher-order skills, such as analysis, critical thinking, and conceptual clarity. The primary purpose of assessment will indeed be for learning; it will help the teacher and student, and the entire schooling system, continuously revise teaching-learning processes to optimize learning and development for all students. This will be the underlying principle for assessment at all levels of education. Para 4.35 expresses that AI-based software could be developed and used by students to help track their growth through their school years based on learning data and interactive questionnaires for parents, students, and teachers, in order to provide students with valuable information on their strengths, areas of interest, and needed areas of focus, and to thereby help them make optimal career choices.

#### Equitable and Inclusive Education: Learning for All

Para 6.15 states that capacities of teachers in the teaching of science, mathematics, language, and social studies will be developed including orientation to new pedagogical practices.

#### **HIGHER EDUCATION**

### Quality Universities and Colleges: A New and Forward-looking Vision for India's Higher Education System

Para 9.1 specifies that Higher education plays an extremely important role in promoting human as well as societal well-being and in developing India as envisioned in its Constitution - a democratic, just, socially-conscious, cultured, and humane nation upholding liberty, equality, fraternity, and justice for all. Higher education significantly contributes towards sustainable livelihoods and economic development of the nation. Para 9.1.1 describes that according to 21st century requirements, quality higher education must aim to develop good, thoughtful, well-rounded, and creative individuals. It must enable an individual to study one or more specialized areas of interest at a deep level, and also develop character, ethical and Constitutional values, intellectual curiosity, scientific temper, creativity, spirit of service, and 21st century capabilities across a range of disciplines including sciences, social sciences, arts, humanities, languages, as well as professional, technical, and vocational subjects. A quality higher education must enable personal accomplishment and enlightenment, constructive public engagement, and productive contribution to the society. It must prepare students for more meaningful and satisfying lives and work roles and enable economic independence. Para 9.1.2 states that for the purpose of developing holistic individuals, it is essential that an identified set of skills and values will be incorporated at each stage of learning, from pre-school to higher education.

Some of the major problems currently faced by the higher education system in India presents in para 9.2 are

- Less emphasis on the development of cognitive skills and learning outcomes;
- A rigid separation of disciplines, with early specialization and streaming of students into narrow areas of study;
- Limited access particularly in socio-economically disadvantaged areas, with few HEIs that teach in local languages
- Lesser emphasis on research at most universities and colleges, and lack of competitive peer-reviewed research funding across disciplines;

#### Towards a More Holistic and Multidisciplinary Education

Para 11.1 describes that India has a long tradition of holistic and multidisciplinary learning, from universities such as Takshashila and Nalanda, to the extensive literatures of India combining subjects across fields. Ancient Indian literary works such as Banabhatta's Kadambari described a good education as knowledge of the 64 Kalaas or arts; and among these 64 'arts' were not only subjects, such as singing and painting, but also 'scientific' fields, such as chemistry and mathematics, 'vocational' fields such as carpentry and clothesmaking, 'professional 'fields, such as medicine and engineering, as well as 'soft skills' such as communication, discussion, and debate. The very idea that all branches of creative human endeavour, including mathematics, science, vocational subjects, professional subjects, and soft skills should be considered 'arts', has distinctly Indian origins. This notion of a 'knowledge of many arts' or what in modern times is often called the 'liberal arts' (i.e., a liberal notion of the arts) must be brought back to Indian education, as it is exactly the kind of education that will be required for the 21st century.

As per para 11.2 NEP 2020, assessments of educational approaches in undergraduate education that integrate the humanities and arts with Science, Technology, Engineering and Mathematics (STEM) have consistently showed positive learning outcomes, including increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills, more in-depth learning and mastery of curricula across fields, increases in social and moral awareness, etc., besides general engagement and enjoyment of learning. Research is also improved and enhanced through a holistic and multidisciplinary education approach.

Para 11.3 describes that a holistic and multidisciplinary education would aim to develop all capacities of human beings -intellectual, aesthetic, social, physical, emotional, and moral in an integrated manner. Such an education will help develop wellrounded individuals that possess critical 21st century capacities in fields across the arts, humanities, languages, sciences, social sciences, and professional, technical, and vocational fields; an ethic of social engagement; soft skills, such as communication, discussion and debate; and rigorous specialization in a chosen field or fields. Such a holistic education shall be, in the long term, the approach of all undergraduate programmes, including those in professional, technical, and vocational disciplines. Para 11.4 states that a holistic and multidisciplinary education, as described so beautifully in India 's past, is indeed what is needed for the education of India to lead the country into the 21st century and the fourth industrial revolution. Even engineering institutions, such as IITs, will move towards more holistic and multidisciplinary education with more arts and humanities. Students of arts and humanities will aim to learn more science and all will make an effort to incorporate more vocational subjects and soft skills. As per para 11.5, Imaginative and flexible curricular structures will enable creative combinations of disciplines for study, and would offer multiple entry and exit points, thus, removing currently prevalent rigid boundaries and creating new possibilities for life-long learning.

Para 11.7 asserts that Departments in Languages, Literature, Music, Philosophy, Indology, Art, Dance, Theatre, Education, Mathematics, Statistics, Pure and Applied Sciences, Sociology, Economics, Sports, Translation and Interpretation, and other such subjects needed for a multidisciplinary, stimulating Indian education and environment will be established and strengthened at all HEIs. Credits will be given in all Bachelor's Degree programmes for these subjects if they are done from such departments or through ODL mode when they are not offered in-class at the HEI.

#### **Optimal Learning Environments and Support for Students**

According to para 12.1, effective learning requires a comprehensive approach that involves appropriate curriculum, engaging pedagogy, continuous formative assessment, and adequate student support. The curriculum must be interesting and relevant, and updated regularly to align with the latest knowledge requirements and to meet specified learning outcomes. High-quality pedagogy is then necessary to successfully impart the curricular material to students; pedagogical practices determine the learning experiences that are provided to students, thus directly influencing learning outcomes. The assessment methods must be scientific, designed to continuously improve learning and test the application of knowledge. Last but not least, the development of capacities that promote student wellness such as fitness, good health, psycho-social well-being, and sound ethical grounding are also critical for high-quality learning.

### Catalysing Quality Academic Research in All Fields through a new National Research Foundation

As per para 17.1, Knowledge creation and research are critical in growing and sustaining a large and vibrant economy, uplifting society,

and continuously inspiring a nation to achieve even greater heights. Para 17.2 states that a robust ecosystem of research is perhaps more important than ever with the rapid changes occurring in the world today, e.g., in the realm of climate change, population dynamics and management, biotechnology, an expanding digital marketplace, and the rise of machine learning and artificial intelligence. If India is to become a leader in these disparate areas, and truly achieve the potential of its vast talent pool to again become a leading knowledge society in the coming years and decades, the nation will require a significant expansion of its research capabilities and output across disciplines. Para 17.4 describes that The societal challenges that India needs to address today, such as access for all its citizens to clean drinking water and sanitation, quality education and healthcare, improved transportation, air quality, energy, and infrastructure, will require the implementation of approaches and solutions that are not only informed by top-notch science and technology but are also rooted in a deep understanding of the social sciences and humanities and the various socio-cultural and environmental dimensions of the nation. Facing and addressing these challenges will require highquality interdisciplinary research across fields that must be done in India and cannot simply be imported; the ability to conduct one 's own research also enables a country to much more easily import and adapt relevant research from abroad.

Para 17.5 states that in addition to their value in solutions to societal problems, any country's identity, upliftment, spiritual/intellectual satisfaction and creativity is also attained in a major way through its history, art, language, and culture. Research in the arts and humanities, along with innovations in the sciences and social sciences, are, therefore, extremely important for the progress and enlightened nature of a nation.

Para 17.7 describes that India has a long historical tradition of research and knowledge creation, in disciplines ranging from science

and mathematics to art and literature to phonetics and languages to medicine and agriculture. This needs to be further strengthened to make India lead research and innovation in the 21st century, as a strong and enlightened knowledge society and one of the three largest economies in the world. Para 17.8 explains that this Policy envisions a comprehensive approach to transforming the quality and quantity of research in India. This includes definitive shifts in school education to a more play and discovery- based style of learning with emphasis on the scientific method and critical thinking. This includes career counselling in schools towards identifying student interests and talents, promoting research in universities, the multidisciplinary nature of all HEIs and the emphasis on holistic education, the inclusion of research and internships in the undergraduate curriculum, faculty career management systems that give due weightage to research, and the governance and regulatory changes that encourage an environment of research and innovation. All of these aspects are extremely critical for developing a research mindset in the country.

#### **Professional Education**

As per para 20.6 of NEP 2020 India must also take the lead in preparing professionals in cutting-edge areas that are fast gaining prominence, such as Artificial Intelligence (AI), 3-D machining, big data analysis, and machine learning, in addition to genomic studies, biotechnology, nanotechnology, neuroscience, with important applications to health, environment, and sustainable living that will be woven into undergraduate education for enhancing the employability of the youth. Para 22.2 describes that the promotion of Indian arts and culture is important not only for the nation but also for the individual. Cultural awareness and expression are among the major competencies considered important to develop in children, in order to provide them with a sense of identity, belonging, as well

as an appreciation of other cultures and identities. It is through the development of a strong sense and knowledge of their own cultural history, arts, languages, and traditions that children can build a positive cultural identity and self-esteem. Thus, cultural awareness and expression are important contributors both to individual as well as societal well-being. Para 22.15 asserts that due to its vast and significant contributions and literature across genres and subjects, its cultural significance, and its scientific nature, rather than being restricted to single-stream Sanskrit Pathshalas and Universities, Sanskrit will be mainstreamed with strong offerings in school - including as one of the language options in the three-language formula - as well as in higher education. It will be taught not in isolation, but in interesting and innovative ways, and connected to other contemporary and relevant subjects such as mathematics, astronomy, philosophy, linguistics, dramatics, yoga, etc. Thus, in consonance with the rest of this policy, Sanskrit Universities too will move towards becoming large multidisciplinary institutions of higher learning. Departments of Sanskrit that conduct teaching and outstanding interdisciplinary research on Sanskrit and Sanskrit Knowledge Systems will be established/strengthened across the new multidisciplinary higher education system. Sanskrit will become a natural part of a holistic multidisciplinary higher education if a student so chooses. Sanskrit teachers in large numbers will be professionalized across the country in mission mode through the offering of 4-year integrated multidisciplinary B.Ed. dual degrees in education and Sanskrit.

#### **Technology Use and Integration**

Para 23.1 describes that India is a global leader in information and communication technology and in other cutting-edge domains, such as space. The Digital India Campaign is helping to transform the entire nation into a digitally empowered society and knowledge economy.

While education will play a critical role in this transformation, technology itself will play an important role in the improvement of educational processes and outcomes; thus, the relationship between technology and education at all levels is bi-directional. Para 23.2 states that given the explosive pace of technological development allied with the sheer creativity of tech-savvy teachers and entrepreneurs including student entrepreneurs, it is certain that technology will impact education in multiple ways, only some of which can be foreseen at the present time. New technologies involving artificial intelligence, machine learning, block chains, smart boards, handheld computing devices, adaptive computer testing for student development, and other forms of educational software and hardware will not just change what students learn in the classroom but how they learn, and thus these areas and beyond will require extensive research both on the technological as well as educational fronts.

Para 23.5 of NEP 2020 explains that the thrust of technological interventions will be for the purposes of improving teaching-learning and evaluation processes, supporting teacher preparation and professional development, enhancing educational access, and streamlining educational planning, management, and administration including processes related to admissions, attendance, assessments, etc. Para 23.6 acknowledges that a rich variety of educational software, for all the above purposes, will be developed and made available for students and teachers at all levels. All such software will be available in all major Indian languages and will be accessible to a wide range of users including students in remote areas and *Divyang* students. Teaching-learning e-content will continue to be developed by all States in all regional languages, as well as by the NCERT, CIET, CBSE, NIOS, and other bodies/institutions, and will be uploaded onto the DIKSHA platform.

Para 23.7 claims that Particular attention will need to be paid to emerging disruptive technologies that will necessarily transform the education system. When the 1986/1992 National Policy on Education was formulated, it was difficult to predict the disruptive effect that the internet would have brought. Our present education system's inability to cope with these rapid and disruptive changes places us individually and nationally at a perilous disadvantage in an increasingly competitive world. For example, while computers have largely surpassed humans in leveraging factual and procedural knowledge, our education at all levels excessively burdens students with such knowledge at the expense of developing their higher-order competencies. Para 23.8 states that this policy has been formulated at a time when an unquestionably disruptive technology -Artificial Intelligence (AI) 3D/7D Virtual Reality - has emerged. As the cost of AI-based prediction falls, AI will be able to match or outperform and, therefore, be a valuable aid to even skilled professionals such as doctors in certain predictive tasks. AI's disruptive potential in the workplace is clear, and the education system must be poised to respond quickly. Para 23.9 declares that in response to MHRD's formal recognition of a new disruptive technology, the National Research Foundation will initiate or expand research efforts in the technology. In the context of AI, NRF may consider a threepronged approach: (a) advancing core AI research, (b) developing and deploying application-based research, and (c) advancing international research efforts to address global challenges in areas such as healthcare, agriculture, and climate change using AI.

Para 23.10 describes that HEIs will play an active role not only in conducting research on disruptive technologies but also in creating initial versions of instructional materials and courses including online courses in cutting-edge domains and assessing their impact on specific areas such as professional education. Once the technology has attained a level of maturity, HEIs with thousands of students will be ideally placed to scale these teaching and skilling efforts, which will include targeted training for job readiness.

Disruptive technologies will make certain jobs redundant, and hence approaches to skilling and deskilling that are both efficient and ensure quality will be of increasing importance to create and sustain employment. Para 23.11 states that Universities will aim to offer Ph.D. and Masters programmes in core areas such as Machine Learning as well as multidisciplinary fields "AI + X" and professional areas like health care, agriculture, and law. They may also develop and disseminate courses in these areas via platforms, such as SWAYAM. For rapid adoption, HEIs may blend these online courses with traditional teaching in undergraduate and vocational programmes. HEIs may also offer targeted training in low-expertise tasks for supporting the AI value chain such as data annotation, image classification, and speech transcription. Efforts to teach languages to school students will be dovetailed with efforts to enhance Natural Language Processing for India's diverse languages.

As per para 23.12, As disruptive technologies emerge, schooling and continuing education will assist in raising the general populace 's awareness of their potential disruptive effects and will also address related issues. This awareness is necessary to have informed public consent on matters related to these technologies. In school, the study of current affairs and ethical issues will include a discussion on disruptive technologies such as those identified by NETF/ MHRD. Appropriate instructional and discussion materials will also be prepared for continuing education. Para 23.13 explains that data is a key fuel for AI-based technologies, and it is critical to raise awareness on issues of privacy, laws, and standards associated with data handling and data protection, etc. It is also necessary to highlight ethical issues surrounding the development and deployment of AIbased technologies. Education will play a key role in these awareness raising efforts. Other disruptive technologies that are expected to change the way we live, and, therefore, change the way we educate students, include those relating to clean and renewable energy, water

conservation, sustainable farming, environmental preservation, and other green initiatives; these will also receive prioritized attention in education.

## Online and Digital Education: Ensuring Equitable Use of Technology

As per para 24.4 of NEP 2020, Given the emergence of digital technologies and the emerging importance of leveraging technology for teaching-learning at all levels from school to higher education, this Policy recommends the following key initiatives:

- Pilot studies for online education: Appropriate agencies, such as the NETF, CIET, NIOS, IGNOU, IITs, NITs, etc. will be identified to conduct a series of pilot studies, in parallel, to evaluate the benefits of integrating education with online education while mitigating the downsides
- Digital infrastructure: There is a need to invest in creation of open, interoperable, evolvable, public digital infrastructure in the education sector that can be used by multiple platforms and point solutions, to solve for India's scale, diversity, complexity and device penetration.
- Online teaching platform and tools: Appropriate existing e-learning platforms such as SWAYAM, DIKSHA, will be extended to provide teachers with a structured, user-friendly, rich set of assistive tools for monitoring progress of learners.
- Content creation, digital repository, and dissemination:
   A digital repository of content including creation of coursework, Learning Games & Simulations, Augmented Reality and Virtual Reality will be developed, with a clear public system for ratings by users on effectiveness and quality. For fun based learning student-appropriate tools like apps, gamification of Indian art and culture, in multiple

- languages, with clear operating instructions, will also be created. A reliable backup mechanism for disseminating e-content to students will be provided.
- Addressing the digital divide: Given the fact that there still
  persists a substantial section of the population whose digital
  access is highly limited, the existing mass media, such as
  television, radio, and community radio will be extensively
  used for telecast and broadcasts.
- Virtual Labs: Existing e-learning platforms such as DIKSHA, SWAYAM and SWAYAMPRABHA will also be leveraged for creating virtual labs so that all students have equal access to quality practical and hands-on experiment-based learning experiences. The possibility of providing adequate access to SEDG students and teachers through suitable digital devices, such as tablets with pre-loaded content, will be considered and developed.
- Training and incentives for teachers: Teachers will undergo rigorous training in learner-centric pedagogy and on how to become high-quality online content creators themselves using online teaching platforms and tools.
- Online assessment and examinations: Appropriate bodies, such as the proposed National Assessment Centre or PARAKH, School Boards, NTA, and other identified bodies will design and implement assessment frameworks encompassing design of competencies, portfolio, rubrics, standardized assessments, and assessment analytics.
- Blended models of learning: While promoting digital learning and education, the importance of face-to-face inperson learning is fully recognized. Accordingly, different effective models of blended learning will be identified for appropriate replication for different subjects.

• Laying down standards: As research on online/digital education emerges, NETF and other appropriate bodies shall set up standards of content, technology, and pedagogy for online/digital teaching-learning.



### EXTRACTS OF 331st REPORT: REFORMS IN CONTENT AND DESIGN OF SCHOOL TEXT BOOKS<sup>1</sup>

Department-Related Parliamentary Standing Committee on Education, Women, Children, Youth and Sports has presented the "Three Hundred and Thirty First Report of the Committee on "Reforms in Content and Design of School Text books". The report focuses on:

- Removing references to un-historical facts and distortions about our national heroes from the text books;
- Ensuring equal or proportionate references to all periods of Indian History;
- Highlighting the role of great historic women achievers.

#### The relevant highlights of the report are given below

 The report elaborates upon National Curriculum Framework that will provide roadmap for the development of new generation of textbooks providing more space to experiential learning for bringing in students the conceptual clarity and motivate students

<sup>1</sup> This report was presented by Dr. Vinay P. Sahasrabuddhe, Chairman Department-related Parliamentary Standing Committee on Education, Women, Children, Youth and Sports on 26th November, 2021

- for self-learning and self-assessment to improve not only cognitive skills but also the social -personal qualities.
- New NCF for School Education will guide the development of new generation textbooks across the subject areas. The new generation textbooks across subject areas will take care of the thematic, inter-disciplinary and multi-disciplinary approaches to highlight Indian culture and traditions, national heroes including women achievers and great regional personalities besides providing coverage to different phases of Indian history.
- NCF must focus on restructuring of stages of curriculum and pedagogy as 5+3+3+4, more focus is on Early Childhood Care and Education and Foundational Literacy and Numeracy, Integration of Pre-vocational Education from classes 6 to 8, Integration of Knowledge of India across the stages, focus on the holistic development through experiential learning, flexibility in choice of subjects etc.
- The report further informs about new ways for promotion of experiential learning, art integrated learning, sports integrated learning and competency-based learning, including internships, 10 bag less days, peer tutoring, interdisciplinary and multidisciplinary projects and development of fun-based student appropriate learning tools to promote and popularize Indian arts and culture etc.
- It also highlights different pedagogies such as group discussions, mock drills, excursion trips, visits to various places, such as zoo, museum, local store or restaurant; field study, classroom interactions, etc. were also being used to support experiential learning. Also, opportunities were provided to break subject boundaries by integration of art forms (visual or performing arts, such as dance, design, painting, photography, theatre, writing, etc.), stories, pictures, fun activities or games, sports,

- etc. for holistic learning of concepts of science and mathematics without burden.
- It further states that the future syllabi and textbooks will be based on goals and competencies which will lead towards mapping of core essentials with competencies hence lessening the curriculum burden and focusing on holistic learning and development. The curriculum and syllabi should provide lots of space for experiential learning and textbooks will be based on competencies rather than content.
- NEP, 2020 recommends integration of knowledge of India across the stages and subject areas in the curriculum. Under this concern, as per the directions of new National Curriculum Framework for school education, various activities including development of digital and audio-video materials will be taken up.
- Thematic, interdisciplinary and multidisciplinary approaches to highlight Indian Culture and Traditions, our National Heroes including women achievers and great personalities from different regions of the country and perspective of equity, integrity, gender parity, constitutional values and concern for environment and other sustainable development goals.
- Experiential Learning through projects and age-appropriate activities, simple language, glossary, more in-text and end-text assessment questions and reduction of curriculum load to core essentials.
- All textbooks will be visually rich with illustrations, photographs, maps, etc., the illustrations and activities will be age/class appropriate. Local flavor will be added to the core essentials in textbooks of the States, to showcase the diversity of the country.
- Local flavor will be added to the core essentials in textbooks of the States, to showcase the diversity of the country. NCERT

- has been working towards bringing dictionary on Indian sign language, which will help in developing material in sign language. The upcoming books and other materials based on the new NCFSC will follow the same pursuit in future.
- More emphasis on role of women: Role of women as rulers, their role in knowledge sector, social reforms, Bhakti movement, art and culture, freedom struggle (Jnana Prabodhini, Pune). Coverage of great historic women heroes belonging to different periods of Indian History including Gargi, Maitreyi, rulers like Rani of Jhansi, Rani Channamma, Chand Bibi, Zalkari Bai etc. will be taken up in the new textbooks, supplementary materials and e-content.
- National initiatives such as Swachh Bharat, Digital India, 'Beti Bachao Beti Padhao', 'Demonetization', GST etc. were integrated in the new textbooks in the review of syllabi and textbooks in 2017-18. Contents were added in history textbooks regarding knowledge, traditions and practices of India. For example, addition of material on Vikram Samvat, Metallurgy, Shivaji Maharaj, Paika revolt, Subhash Chandra Bose, Swami Vivekanand, Ranjeet Singh, Rani Avantibai Lodhi and Sri Aurbindo Ghosh.
- The objective of teaching history was to instil high self-esteem in students, National Renaissance, National unity, Social Inclusion and establish links with cultural roots. Thus following points are to be kept in mind while writing text books:
  - O Depicting cultural unity
  - O Linguistic heritage- importance of Sanskrit, Prakrit and Pali for national unity and international spread.
  - O Linking Indian languages.
  - O Civilization development -Vedic to present.

- Comparison of scientific temper with other civilizations on scientific and objective ground.
- History of sacrifices of various segments of Indian society for saving cultural values.
- O Social inclusion.
- O India and its cultural boundaries.
- O Civilization proofs of India in other countries of the world.
- Religio-cultural emissaries from India should have proper place.
- O Local, national as well as international influence of any event or thought should be highlighted. (Bharatiya Shikshan Mandal, New Delhi)
- The representatives of **Vidya Bharti** also put forth their views on the subject and pointed out certain factual distortions about vedic tradition, incompatibility of certain facts with constitutional ideals and values in the school textbooks. They suggested a thorough review and removing of such distortions/ discrepancies from the school textbooks. They also mentioned about 'My NEP' programme launched to reach non-academic people and to make them learn about the things in the National Education Policy in a nutshell.
- Inclusion of History of North East India: Bhakti and social movements in Assam and Manipur, tribal heroes who fought against British, contribution of Arunachal and Manipur with reference to Azad Hind Fauj and 1962 war, dynasties in Assam, Manipur, Tripura, Meghalaya. (Jnana Prabodhini, Pune)
- Post-independence History of Indian pride also needs to be stressed: Story of ISRO, story of BARC, story of cooperative movement (Story of Amul), story of restorations (Somnath, Hampi, archaeological sites such as Lothal) etc. (Jnana Prabodhini, Pune)

- The Design of textbooks should be:
  - O Curriculum of history can be organized in an ascending order. The scope of curriculum grows with the growth of experience sphere of students from local to global.
  - O Digitization of textbooks to make them attractive and dynamic document to go beyond text/ printed form: need to add audio-visuals with QR codes.
  - O Inclusion of intellectual games, simulations. VR Games modeled to let students experience the historical times (for example 'Real lives') (**Jnana Prabodhini, Pune**)
- As far as the Modern period is concerned, some leaders have received more weightage as compared to others. The role of Subhash Chandra Bose, Sardar Patel, Bhagat Singh, Ram Prasad Bismil, Lala Lajpat Rai, Khudiram Bose, Surya Sen, and even the women revolutionaries must be highlighted. The contribution of Veer Savarkar needs to be given enough weightage. (Public Policy Research Centre, New Delhi)
- pointed out that representatives proportionate representation across Region, Time Period, and Events should be given in the Textbooks. South and East Indian dynasties have been highly under-represented. The history of great kingdoms like the Marāthas, Colas, and Vijayanagara as well as the early Kāśmīra dynasties, Kalingas, Gangas, Gajapatis, Kākatiyas, Ahoms, Ceras, Pallavas, Pāṇdyas, Pālas, Senas, and Pratihāras either get a passing mention or not even that. The crucial role they played in our history must be elaborated. They further added that we must include these dynasties, which represent the very spirit of Bhāratīya Civilization that the Radhakrishnan Committee wanted every student to imbibe. (Samvit Research Foundation, Bengaluru). The following points were further added:

- O Bhāratīya saṃskṛti has been widespread from Mesopotamia in the West to Japan in the East, from the Himalayas in the North to Indonesia in the South
- The Zend Avesta has significant relationship with the late Rigvedic period
- Our Itihāsas and Purāṇas, particularly the Rāmāyaṇa, have been an integral part of the culture of many regions of Southeast Asia.
- The representatives also added that the history curriculum hardly emphasizes the role played by women in our history. It is important for students to learn
  - O the importance our civilization has given to women and how women participated in all aspects of life over the centuries
  - O the freedom and opportunities available to women in public life
  - O the great achievements of women from ancient times until the present day
  - O the temporary changes in status of women in the wake of invasions
  - O to progressively appreciate that our paramparā has a beautiful and holistic perspective of strītva that is far beyond modern formulations.
- They further suggested that this can best be accomplished by exposing the children to factual information from the past:-
  - O Introduce the three great goddesses of the Vedas Bhāratī, Ilā, Sarasvatī. Introduce a few Veda-suktas for which women are the mantra-draṣṭāriṇīs. In the Vedic period, mention woman scholars, brahmavādinīs, and mantra-draṣṭāriṇīs, including instances of where women learnt the Vedas.

- O Present the dynamic role played by women in the Rāmāyaṇa and Mahābhārata. Give a complete picture of women-related references in the smrtis.
- O Portrayal of women in various classical literary accounts (e.g. Kālidāsa's Mālavikāgnimitra) that indirectly shows how the society was shaping up at that time.
- O The critical contributions of queens in every century and every region across communities. Prominent rājamātas who played a role in shaping their children as rulers; important women warriors, scholars, poetesses, philanthropists, public personalities, sanyāsinīs, philosophers, saints, and freedom fighters
- The Committee is of the view that there should be an appropriate comparison of the portrayal of women heroes like Rani Laxmi Bai, Zalkari Bai, Chand Bibi etc vis-a-vis their male counterparts. The Committee observes that the women heroes from different regions and eras should be given equal weightage highlighting their contributions in the history textbooks.
- The Committee also observes that notable women in all fields, and their contributions, like that of Ahilyabai Holkar, Abala Bose, Anandi Gopal Joshi, Anasuya Sarabhai, Arati Saha, Aruna Asaf Ali, Kanaklata Deka, Rani Ma Guidinglu, Asima Chatterjee, Captain Prem Mathur, Chandraprabha Saikini, Cornelia Sorabji, Durgavati Devi, Janaki Ammal, Mahasweta Devi, Kalpana Chawla, Kamaladevi Chattopadhyay, Kittur Chennamma, M. S. Subbulakshmi, Madam Bhikaiji Cama, Rukmini Devi Arundale, Savitribai Phule and many others have not found adequate mention in NCERT textbooks.
- The Committee observes that generally Women are underrepresented in school textbooks, many a times shown through images in traditional and voluntary roles, leading to

- formation of gender stereotypes in the impressionistic minds of students and feels that there is a need to undertake an analysis of the textbooks from the Gender perspective as well.
- regarding updation of NCERT books, emphasis was laid on providing equal representation to the North-East Indian States and the History. It was suggested that developmental models and economic policies should have sections dealing with and talking about the complex realities and demographics of the North-East along with the history of civilizations and tribal communities of the North-eastern region. Furthermore, the textbook content should also ensure adequate balance in representing Hill areas and Plains areas so as to recognise both communities adequately.

#### **Subject Experts**

**Prof. J.S. Rajput**, Former Director, NCERT in his submission before the Committee stated that Reforms in the content and design of Textbooks should focus on the following aspects:

- a. Distortion of historical facts where one ruler is remembered and other equally prominent one's finds no mention.
- b. Not only periods, history must be just and objective to considerations of regional imbalances, historical contributions of the communities, people and practices.
- c. Social and cultural distortions must not be presented by those bound by prejudices and biases.

He stated that the content and design of textbooks is a product of Policy on Education, Curriculum Framework to be developed after its sensitive comprehension, followed by the process of preparing detailed syllabus for each textbook; for each grade /class. The quality and content of the textbook shall depend on the quality of the authors; that include depth, seriousness, professional competence and commitment of individuals and institutions assigned the task. A good textbook can be authored only by those who are lifelong learners.

It was emphasized that National level textbooks are essential for several reasons, but it must be remembered that local element of curriculum also cannot be ignored. A class three textbook on environmental education just cannot be same in Tripura and Thiruvananthapuram. Hence, it is necessary to strengthen expertise and institutions at the State level. We need high level experts in textbook writing, evaluation, assessment, growing up, guidance, and all that children could need. now education is not only about/through textbooks, buttextual materials for online learning, self-learning, digital learning, open and distance learning, and a couple of other terms that are in vogue. It has to be hybrid teaching and learning in future. Things have changed drastically in 2020, and some of the impacts shall continue in future as well.

New discoveries are taking place, new facts are coming up, and textbooks just cannot remain the same. This is worsened if the history is written with certain pre-conceived biases resulting out of politically-constrained ideological bindings. History writing in India has suffered on these unacceptable considerations, and it must be extracted - and liberated - out of gross subjectivity and ideological bias to transparent objectivity, and openness of mind, willingness to enter into dialogue with those holding diametrically opposite views. New facts have emerged around us; say; Aryan Invasion theory, Saraswati River, Ram Setu, and so many more solely because of new scientific advancements and new tools that have led to new researches. These just cannot be ignored in preparing new textbooks. ndian history writing needs a thorough professional review. As it was determined to highlight certain individuals, regimes and eras, it suffers from

serious imbalances of every possible type. He further pointed out the British tried to downgrade the great contributions of ancient India in philosophy, science, mathematics, spirituality, medicine and other fields and it was continued to be neglected in our textbooks. While considerable initiatives were taken for removing gender bias and caste discriminations, history writing remained confined to the hegemony of a select group of few academics for over five decades. The post- independence history books are deficient on 'linking Indians to India'; and this includes history, heritage and culture. In fact, this aspect needs serious informed and scholarly deliberations before textbooks are prepared in response to the NEP-2020.

The second most important aspect that no textbook writer could ignore pertains to the need for strengthening social cohesion and religious amity. Racial discrimination and caste considerations - in varied connotations - have not vanished fully even in what are known as most advanced societies. We must accept that these challenges still exist even before us; and these require an attitudinal transformation. Our Children must know that different religions are a reality, that no religion could claim superiority over any other.

**Shri Hukmdev Narayan Yadav**, Ex-MP, Lok Sabha emphasized the importance of the subject and suggested for detailed discussion with more stakeholders and eminent educationists. The focus should not 'be only on facts and figures while writing Indian history but it should focus on the deep essence of the nature of Indian history in order to make it more understandable.

**Shri Shankar Sharan,** Eminent Educationistal so deposed before the Committeeon the above subject and highlighted various topics for inclusion/ exclusion in NCERT text-books. He drew the attention of the Committee Members as to why the text-books had references to unhistorical/ distorted facts and why a section of intellectuals insisted on keeping it. Focusing on this will only help in removing such discrepancies.

#### Recommendations

In view of the evidences gathered throughout the process, the Committee strongly recommends that:

- While creating the content for textbooks, inputs from experts from multiple disciplines should be sought. This will ensure balance and diversity of views. It should also be ensured that books are free of biases. The textbooks should instill commitment to values enshrined in the constitution and should further promote national integration and unity.
- There is a pressing need to develop high-quality textbooks and effective teaching methods. Thus mandatory standards related to text-book content, graphics and layout, supplementary materials, and pedagogical approaches should be developed. Such standards are needed for printed as well as digital textbooks.
- There is a need to have more child-friendly textbooks. This is possible through enhanced use of pictures, graphics, QR codes, and other audio-visual materials. Children should be taught through enhanced used of games, plays, dramas, workshops, visits to places of historical importance, museums etc. as such approaches will ignite their inquisitiveness and analytical abilities.
- The initiative of Maharashtra State Bureau of Textbook Production & Curriculum Research known as Ekatmik Pathya Pustak conceived in 2018-19 to lighten the school bag is appreciable. Towards this, the Bureau has created quarter-specific integrated material for Marathi, English, Mathematics and 'Play, Do, Learn' for Class I students into a single book. A similar approach may be adopted by others. Such initiative will be aligned to the School Bag Policy of New Education Policy (NEP), 2020 as laid out in Section 4.33.

- Education must be provided in the light of values enshrined in the constitution which cannot be taught by mere delivery of information. The pedagogy woven around textbooks has a lasting impact on the minds of the student and hence learning-by-experiment methodology should be compulsorily used by all teachers. Such an approach will enhance positive attitude towards learning amongst students.
- The prioritization of development of foundational skills amongst primary students is required by the NEP-2020, and therefore necessitates the use of information technology and digital devices. Therefore, digital content should be created and disseminated using satellite technology to enhance our students' capabilities and potentials. Such approaches will further curriculum reform and will also help develop more effective operational models for content delivery, and learning. Introduction of modern technologies/ methodologies for the dissemination of information as part of teaching strategies should be undertaken preferably after enabling the possibility of the same uniformly in every part of the country. Schools in remote corners of the country should be suitably equipped for the same.
- The primary school textbooks should serve two purposes; provide strong foundation in core areas such as reading, writing and arithmetic, and provoke curiosity so that students can rapidly expand their knowledge in later years. This is also in alignment with NEP 2020's goal of promoting competency-based learning.
- The NCERT and SCERTs should primarily focus on providing core content through their textbooks. Detailed information and supplementary materials may be provided

through other texts, videos, reference books, A/V files, etc. Further, textbooks should be anchored in facticity. Any presentation of data or survey results should be appropriately referenced. Textbooks should be designed to provoke curiosity and analytical abilities, should be tuned to cognitive capability of the student, and should employ simple language. Further, efforts should be made to design textbooks in ways such that project-based, art-integrated, and experiential learning models can be deployed for effective education. In this way, our textbooks will promote scientific temper, innovation, and also the four Cs; Communication, Collaboration, Creativity, and Critical Thinking.

- The Ministry should explore the possibility of developing a core class-wise common syllabus for various subjects for implementation by CBSE, CICSE and various other State education Boards as this will go a long way in maintaining uniformity in educational standards of school students across the country.
- Our textbooks should highlight the lives of hitherto unknown men and women from different states and districts who have positively influenced our national history, honour, and one-ness. This may require content production teams to dig deeper into local sources of knowledge, including oral ones, and identify linkages between the local and the national. In this way, our textbooks should elicit "Unity in Diversity" of India emphasizing that diversity in India is in fact diverse manifestation of the innate one-ness or intrinsic unity.
- The textbooks should include content on world history and India's place in the same. In this regard, special emphasis must be placed on the histories of other countries of the

world. This is aligned with international guidelines which argue for study of history through a multi-perspective approach. Further, sufficient emphasis must also be placed on the connects between histories of South-East Asia and India. This would be very useful in the context of India's Look East policy.

- Our history textbooks should be continually updated, and account for post-1947 history as well. In addition, an option of conducting review of National Curricular Framework at regular intervals should be kept.
- NCERT should carefully study how other ancient civilizations/ countries teach their own histories to their respective citizens through textbook content, and areas of emphasis. The results of such a study should be used to improve our own history textbooks and teaching methods taking into consideration history at the grassroots level preferably at the district levels. Further, the State Boards may prepare district-wise history books that will impart knowledge about local historical figures to the students.
- The NCERT should consider the suggestions received by this Committee, while framing the NCF and syllabus of the textbooks. For avoiding content overload on students, NCERT in collaboration with SCERT should identify Statespecific historical figures for inclusion in respective SCFs. Efforts may also be made to incorporate and highlight the contributions of the numerous local personalities in various fields in State curriculum.
- The NCERT and SCERT should incorporate the ancient wisdom, knowledge and teachings about life and society from Vedas and other great Indian Texts/ Books in the school

curriculum. Also, educational methodologies adopted in the ancient Universities like Nalanda, Vikramshila and Takshila should be studied and suitably modified to serve as a model reference for teachers so as to benefit them in improving their pedagogical skills for imparting education in the present day context.

- Contributions of ancient India in the fields of Philosophy, Science, Mathematics, Medicine, Ayurveda, Epistemology, Natural sciences, Politics, Economy, Ethics, Linguistics, Arts, etc may also be included in the textbooks. The traditional Indian knowledge systems should be linked with modern science and presented in the contemporary context in NCERT textbooks.
- New technologies should be adopted for better pedagogy for the education of History. Further a permanent mechanism to make suitable rectifications through additions or deletions in the textbooks in a structured manner needs to be established.
- All books especially history books other than published by Government agencies used for supplementary reading may be in consonance with the structure/ content of NCERT books to avoid discrepancies. Also, Ministry of Education should develop a monitoring mechanism for ensuring the same.
- There is a need for discussing and reviewing, with leading historians, the manner in which Indian freedom fighters, from various regions/parts of the country and their contributions get place in History textbooks. This will result in more balanced and judicious perception of the Indian freedom struggle. This will go a long way in giving due and proper space to the freedom fighters hitherto

unknown and oblivious in the freedom movement. Review of representation of community identity based history as of Sikh and Maratha history and others and their adequate incorporation in the textbooks will help in a more judicious perspective of their contribution.

- In order to address the underrepresentation of Women and girls in school textbooks or them being depicted only in traditional roles, a thorough analysis from the view point of gender bias and stereotypes should be undertaken by NCERT and efforts be made to make content portrayal and visual depiction gender inclusive. The textbooks should have greater portrayal of women in new and emerging professions, as role models with a focus on their contributions and pathway of achieving the same. This will help in instilling self-esteem and self confidence among all, particularly girls. Also, while examining the textbooks, other issues like environment sensitivity, human values, issues of children with special needs etc can also be looked up for adequate inclusion in the School textbooks.
- The significant role played by women in the freedom movement and in various other fields needs adequate representation in the textbooks as it would go a long way in understanding the issues in a better way for the next generation of students.
- One of the major social ills afflicting our society in the present times is the malaise of drug addiction cutting across the class divide. It has far-reaching adverse effects on the socio-economic structure of the country, and that concerted efforts are required to be made by the government agencies as well as the civil society to combat this menace. As part of these efforts, the ill effects of such addiction must be

adequately and suitably highlighted in strong words, in the content of school text books to caution the impressionable young minds of students against falling prey to luring tactics of anti-social elements and resulting in waywardness. Similarly, the textbooks should have separate elements spreading awareness against internet addiction and other such aspects that are harmful to the society.

- Taking into account the voluminous number of suggestions received from teachers, students, Institutions for updating the syllabus of NCERT textbooks incorporating various subjects, an internal Committee be set up by Ministry of Education and NCERT to examine the suggestions so received and incorporate the same in curriculum as deem fit.
- All NCERT and SCERT textbooks must be published in all Eighth Schedule languages of the Constitution of India, besides Hindi and English. Further, efforts for developing textbooks in local languages (those not part of the Eighth Schedule) be also made. These will help the children in understanding the subjects better as the content will be in their mother tongue.
- To supplement the textbook content, field visits/ excursions should be introduced as a compulsory part of learning experience. As an initiative in this regard, textbooks can introduce a "Box Format" near the name of the place being mentioned stating the importance of that place whether religious, historical, etc. promoting the readers to visit it. This would further promote North-South and East-West integration.

## NEP & DEVELOPING NEW TEXT BOOKS<sup>1</sup>

Prof. Chand Kiran Saluja

Director, Sanskrit Promotion Foundation, New Delhi

Prof. Chand Kiran Saluja emphasizes upon the various aspects of New Education Policy- 2020 such as building a culture of reading across the country. NEP-2020 has focused upon the development of curriculum, syllabus and textbook and it envisions a new way of learning which is not merely text book focused. Earlier, NCF 2005 had also mentioned that learning should be active rather than textbook centric only. Textbooks as a single source of education are not enough; they are important but are not only a teaching material. Therefore, a large number of packages should be developed at State and District levels with adequate provision for cluster and school level modifications and supplementary materials. To understand a textbook one needs to understand the curriculum and the aims of education. The present-day classroom practices

Based on the Keynote Address delivered by Prof. Chand Kiran Saluja in the Prparatory Workshop on Textbooks: Indian Knowledge System and Languages organized by VBUSS on 3rd & 4th February, 2022 and Keynote Lecture in the Two-day National Workshop on Sanskrit in the light of NEP 2020 & Indian Knowledge Systems organized by Central Sanskrit University, Delhi and Shri Lal Bahadur Shastri National Sanskrit University, Delhi on 4th & 5th June 2022.

are, in almost all schools of the country, totally dominated by the textbook. As a result, it has acquired an aura and a standard format. What is needed is not a single textbook but package of teaching learning method and material that could be used to engage the child in active learning. The textbook thus becomes a part of this package and not just a teaching learning material e.g., it connects the past with the present and should lead to experiential learning which means taking classroom to the field and vice versa. Therefore, a large number of packages should be developed at state and district levels with adequate provision for cluster and school level modifications and supplementary materials. This essentially means establishing proper coordination between the textbook designing committees at national and regional levels. The establishment of NCERT and SCERT are the part of this purpose only. The cluster system envisaged in the NEP, 2020 is also a part of this exercise. The availability of a number of alternative TLM packages of approved quality to the increased choice of the teachers may go a long way in introduction of IKS. To understand the textbook, one must understand the relationship between the curriculum and aims of education. There is a difference between curriculum and syllabus. The syllabus is something that is taught to the student in the classroom but curriculum involves vast level of activities including the syllabus. In simple terms, the curriculum starts from the moment a student enters the school environment and continues to be involved into till the end of the school hours and thereafter too in the form of doing various activities given by the teachers. Part I of the NEP, 2020 document outlays various objectives of education.

Textbooks are to be prepared based on certain pre-suppositions in relation to imparting of education and these presuppositions are guided by social, physical and psychological aspects of learners.

- The presentation of the textbook should be organized keeping certain things in mind such as what should be the topic of a lesson, how should study be conducted, how should vocabulary related to the lesson be organized etc.
- The objective of the textbook should not aim at merely addressing
  the curiosity in the minds students alone but also to create
  more curiosity among them. Therefore, the preparation of
  the textbooks should aim at invoking curiosity in the minds
  of learners.
- Textbook is an instructional material. It is not only for teaching but for learning as well. Therefore, textbooks should be designed keeping teaching-learning textual material based on a teaching model in mind.
- We must collect material for the preparation of textbooks first. As envisaged in the NEP, 2020, such material useful for the preparation of textbooks should be able to establish proper explanation of the idea to be taught, should be able to invoke thinking process among children, the textbook should be able to develop critical faculty among students and they should highlight Indianness or Indian values embedded in them.
- A Teaching Model essentially means designing educational activities and situations (classroom situations to learn).
- Constructive Teaching Learning Situation: NEP 2020 in its part 4 maintains that textbooks should not be an exercise of merely providing answers to the questions but students should be enabled to find out answers to the questions in their minds. Constructive approach used in NEP document means students should be equipped to find out answers that are already in their minds through the means of textbooks. NEP document says education should move towards less content and more towards learning about how to think critically and solve problems, how

- to be creative and multidisciplinary, and how to innovate, adapt and absorb new material in novel and changing fields.
- Pedagogy must evolve to make education more experiential, holistic, integrated, inquiry driven, discovery oriented, learner-centric, discussion based, flexible and of course, enjoyable.
- Education should evolve into a process that recognizes, accepts and develops the potential of the learner.
- This must also be born in mind that while teaching, a teacher is not merely teaching in the classroom but he/she is also learning from the experiences of his/her students which he/she can bring in use for teaching the next batch of students. Part 4 of the NEP 2020 also emphasizes on art oriented and play oriented ways of teaching-learning process. Art cannot be understood only in terms of narrow understanding like drawing but seeing and perceiving things with different aspects associated with a particular issue is also an art.
- Textbooks should be prepared by drawing connections between cause and effect related to a particular issue as well.
- Activities prescribed for students should not be merely individual student centric but they should also develop group behavior among them. The NEP too has said that such activities will help students to keep in tune with the developments of the 21st century and should imbibe constitutional values among students, e.g., fundamental duties, environmental concerns etc.
- Approach to preparing textbooks should not be followed in isolation but must have an inter-disciplinary approach for example, textbook preparing committees on science, social sciences and languages should come together and device strategies in this regard.

- Textbooks for students should enable them not to learn what's being taught in the classroom for that moment or year alone but they should develop the sense of learning things continually.
- Thus, textbook should inculcate the thoughts and ideas on social justice, equality, scientific development, and national unity, cultural preservation of India, developing wholesome personality, developing resources to their fullest and using them in sustainable ways.
- Section 4.31 of the NEP provides for developing textbooks at national level keeping local issues and local aspects in the center stage. It lays emphasis on the constructive approach based on the discussions, explanations and utility of the learnt knowledge in practical life. It also talks of including supplementary material in the textbooks. It also talks of including bunch of books derived from the national and local sources.
- The reduction in content and increased flexibility of school curriculum renewed emphasis on constructive rather than rote learning. This must be accompanied by parallel changes in school textbooks. All textbooks shall aim to contain the essential core material (together with discussion, analysis, examples and applications) deemed important on a national level, but at the same time contain any desired nuances and supplementary material as per local contexts and needs. Wherever possible schools and teachers will also have choices in the textbooks they employ from among a set of textbooks that contain the requisite national and local material so that they may teach in a manner that is best suited to their own pedagogical styles as well as to their students and communities' needs.
- Section 4.32 of the NEP provides for coordination between NCERT and SCERT to develop textbooks in various

languages spoken in India. They must derive from the sources across regions in India. "The aim will be to provide such quality textbooks at the lowest possible cost -namely, at the cost of production/printing - in order to mitigate the burden of textbook prices on the students and on the educational system. This may be accomplished by using high-quality textbook materials developed by NCERT in conjunction with the SCERTs; additional textbook materials could be funded by public-philanthropic partnerships and crowd sourcing that incentivize experts to write such high-quality textbooks at cost price.

- States will prepare their own curricula (which may be based on the NCFSE prepared by NCERT to the extent possible) and prepare textbooks (which may be based on the NCERT textbook materials to the extent possible), incorporating State flavour and material as needed. While doing so, it must be borne in mind that NCERT curriculum would be taken as the nationally acceptable criterion. The availability of such textbooks in all regional languages will be a top priority so that all students have access to high-quality learning. All efforts will be made to ensure timely availability of textbooks in schools. Access to downloadable and printable versions of all textbooks will be provided by all States/UTs and NCERT to help conserve the environment and reduce the logistical burden."
- Section 4.33 provides for "Concerted efforts, through suitable changes in curriculum and pedagogy, will be made by NCERT, SCERTs, schools, and educators to significantly reduce the weight of school bags and textbooks.
- In this regard, it's important to look at 1992 Committee Recommendations on how should the textbooks be also the 2005 NCF recommendation on the curriculum.

- Textbooks should include topic, role of the concerned topic, syllabus, self-study material, pictorial representations, structuralism, experiential learning, communication, students' participation, empowering teachers, culture, constitutional values, skills required for the 21st century, research aptitude, supplementary books etc.
- Education should be the process of humane learning presupposing a specific social nature and a process by which children grow into the intellectual life for those around them.
- Education should enable the child to look at the environment around her/ his in a holistic manner and does not compartmentalize any topic into science and social science.
- Therefore, an attempt should be made in the textbook so that it will help a child to locate every theme in physical, social and cultural contexts critically so that the child can make informed choices in his/her life.
- The challenge in relation to writing a textbook at national level lies in the fact that it should reflect the multicultural dimensions of the Indian society. Every effort should be made to include every community in the country giving due space to their culture and way of life so that all of them feel important.
- The position paper by the textbook preparation committees previously constituted had observed that- While writing textbooks..... "who is the child we are addressing was the big question. Does a child study in the big of school of the metro city or the school in the slums, a small-town child, one in village school or one in the remote mountainous areas? One also needed to tackle the difference of gender, class, culture, religion, language, geographical locations etc. These are some of the issues addressed in the book, which the teacher will also

- have to handle sensitively in her own ways." While preparing textbooks these issues of concern must be deliberated over.
- There is need to inculcate the habit of reading among our students and for that to happen the books must be prepared in a way that they become attractive for them.
- We need to pay attention to the section 4.35 of the NEP in this regard. It says, "The progress card of all students for school-based assessment, which is communicated by schools to parents, will be completely redesigned by States/UTs under guidance from the proposed National Assessment Centre, NCERT, and SCERTs. The progress card will be a holistic, 360-degree, multidimensional report that reflects in great detail the progress as well as the uniqueness of each learner in the cognitive, affective, and psychomotor domains. It will include self-assessment and peer assessment, and progress of the child in project-based and inquiry-based learning, quizzes, role plays, group work, portfolios, etc., along with teacher assessment. The holistic progress card will form an important link between home and school and will be accompanied by parent-teacher meetings in order to actively involve parents in their children's holistic education and development. The progress card would also provide teachers and parents with valuable information on how to support each student in and out of the classroom. AI-based software could be developed and used by students to help track their growth through their school years based on learning data and interactive questionnaires for parents, students, and teachers, in order to provide students with valuable information on their strengths, areas of interest, and needed areas of focus, and to thereby help them make optimal career choices." These issues must be kept in mind while preparing textbooks.

 The interdisciplinary approach of seeking knowledge is not new to us in India. The Sushrutsamhita has quite elaborately spoken about it in the following words-

> एकंशास्त्रमधियानो न विद्याछास्त्रनिश्चयं तस्माद बहुश्रुताः शास्त्रंविजनीयचिकित्स्काः शास्त्रंगुरुमुखोदीर्णमादायोपास्य चासकृत यः कर्मकुरुतेवैद्यः स वैद्योन्य तू तस्कराः (सुश्रुत संहिता सूत्रस्थानम4. 6-8)

- Our education should make students competent, experienced and capable enough to expand their knowledge on their own.
   While writing books, the interests of all students of society belonging to different gender, class, culture, religion and geographic locations should be kept in mind.
- The textbooks should be structured primarily in the five parts, viz. 1. Curriculum or syllabus as per our educational needs and objectives. 2. Collection of the material and its sequencing or sorting for the intended purpose, for example, the collected material can used for designing syllabus of various classes.

  3. Evaluation of the utility of the syllabus or curriculum. 4. Presentation of the collected material in the textbooks and 5. background checking meaning whether there is any need for further improvement in the designed books and its syllabus (पतिपृष्टि). It has been very beautifully said in the Indian knowledge traditions in the following shloka of Shukarhasyopanishad-

श्रवणंतु गुरोः पूर्वं मननंतदनन्तरम् । निदिध्यासनमित्येतत् पूर्णबोधस्य कारणम् । । (शुकरहस्योपनिषद्) श्रवण > मनन > निधिध्यासन

# SECTION II NEP 2020 & Integrating Bharatiya Knowledge System in Textbooks

### ASSIMILATING INDIAN KNOWLEDGE SYSTEM IN MAINSTREAM EDUCATION: MANDATE OF NEP 2020: REPORT OF PROCEEDINGS

In this context, Vidya Bharati Uchcha Shiksha Sansthan has been working to modernize the Indian education system, introducing rich cultural heritage and knowledge traditions of India in the curriculum. Vidya Bharati Uchcha Shiksha Sansthan has been instrumental in initiating positive discussions and discourses among all the stakeholders to help realize the vision and objectives of NEP 2020 with a series of conferences, seminars and various national workshops. In this direction, Two-day National Symposium on "Assimilating Indian Knowledge System in Mainstream Education: Mandate of NEP 2020" on 5-6 May 2022 at NIOS, NOIDA. The symposium was attended by over 100 delegates from across the country. Many eminent academicians made presentations as resource persons particularly stressing upon implementing NEP in school education with focus on including Bharatiya culture ethos, and pedagogy in textbooks.

The following are the highlights of the conference:

### **Inaugural Session**

A two-day National Symposium was organised on May 5 and 6, 2022, at Kalyan Singh Auditorium of NIOS, NOIDA, on 'Assimilating

Indian Knowledge System in Mainstream Education: Mandate of NEP 2020', under the joint aegis of National Institute of Open Schooling (NIOS) and Vidya Bharati Uchcha Shiksha Sansthan.

The program was inaugurated with the lighting of the lamp and Saraswati Vandana. The news bulletin of NIOS was also released in this programme.

In this two days symposium, renowned educationist Padma Shri Chamu Krishna Shastri (Trustee Secretary, Sanskrit Promotion Foundation), Prof. Kapil Kapoor, Shri Govind Mohanta (Rashtriya Sangathan Mantri, Vidya Bharti), Shri. Avneesh Bhatnagar (Rashtriya Sangathan Mantri, Vidya Bharti), Prof. Saroj Sharma, Chairperson NIOS and many academicians, educationists, and officials of Vidya Bharati Uchcha Shiksha Sansthan, all heads of departments, including officials of NIOS participated. The officials of NIOS at the Regional Centre, including Regional Directors, participated directly and through the virtual medium.

**Prof. Saroj Sharma Ji, Chairperson, NIOS,** welcomed the distinguished dignitaries and guests. In her welcome address, she expressed the hope that there would be a meaningful discussion to comprehend the intricacies of NEP-2020 and to create actionable insights to ensure the careful implementation of the policy.

She said NIOS has already been offering courses on Vedas, Yoga, and Indian culture and heritage at secondary and senior Secondary levels of education. In addition, courses related to Indian Knowledge traditions have also been introduced at all three levels of open basic education (OBE). Our knowledge has always been relevant. She said that Indianness is a symbol of spirituality and education. A special NIOS News bulletin based on Indian Knowledge Tradition and National Education Policy was also released.

In the inaugural session, invited dignitaries expressed their thoughts on the Indian Knowledge System. Shri Govind Mohanta, National Organizing Secretary, Vidya Bharati, said that the Indian

Knowledge System should be incorporated into textbooks as per the mandate of National Education Policy 2020.

He emphasised that the value-oriented Indian knowledge System should reach the classrooms so that our coming generations are in tune with the civilizational values we have nurtured for centuries.

In his address, Shri Avneesh Bhatnagar, Vidya Bharati Uchcha Shiksha Sansthan underlined the key points of NEP and said that it is necessary to include value education in education. He further noted that Indian knowledge traditions, our concern for the environment and ecology, and mutual harmony imbued in our age-old traditions and moral values should be considered while preparing the curriculum. He also suggested that the teaching fraternity needed to improve its pedagogical methods. Teachers have an essential role in the implementation of NEP. Teachers should make the children aware of their responsibilities and duties towards society and the nation.

Furthermore, Shri Avneesh Ji said that NEP -2020 would make the country a global leader again and build a new India by imparting value-based education. He assured on behalf of the Ministry of Education that the recommendations of the Symposium might be considered. Shri Bhatnagar said it is a process of awakening pride to include an Indian Knowledge System in the curriculum, which students can imbibe in their lives. For this, there is a need to inculcate mainly three abilities in the students — causation, authenticity and ability to express. In this context, Shri Bhatnagar Ji also reflected on the cross-cutting theme enunciated in the NEP-2020 and hoped that the syllabus and textbooks should be designed in such a way so that the main focus of the NEP 2020 is fructified.

Shri Bhatnagar Ji said that the expansion of knowledge would develop the ability to discover the underlying cause of lost moral values. Education should be in such a way that it helps learners to accept rational facts. The power of expression should be developed in them through art, literature, music, painting and drama.

Shri Chamu Krishna Shastri Ji said that the Indian knowledge System is categorised into written literature, oral tradition and skilled tradition. These three modes of Indian knowledge traditions should be included in school education. Shri Shastri emphasised the need to teach the students from the school level to the higher level of education by incorporating these three into the curriculum. In his address, he also reflected on whether the Indian knowledge system should be introduced as a separate subject or connected to every other subject taught at all levels of schooling. For this, he mused considering three aspects attached to the issues for the consideration of the audience –

- Why should Indian knowledge tradition be included in a curriculum?
- How to teach Indian knowledge tradition?
- What is the subject matter for the Indian knowledge tradition?

Shri Shastri ji, while considering the above points, stressed the need to keep in mind spirituality, the fundamental element, the soul of Indian knowledge tradition.

Prof. Kapoor observed that Indians are familiar with authentic Indian knowledge traditions. However, there is a need to awaken them. He highlighted that the Indian knowledge tradition is like the flow of the eternal Ganges. The Vedic tradition is the best among the world's major knowledge traditions, and this Indian knowledge tradition is alive in ordinary Indians. The Western civilization understands the importance of our knowledge tradition. We have to move from a materialistic view of life to a spiritual perspective. Our ancient knowledge tradition is vibrant. We have to integrate the Indian knowledge system into education.

Prof. Kapoor shared that Indian society is part of the Indian knowledge tradition. India's knowledge traditions' complexity,

richness and creativity influence all aspects of our lives. As evidenced by its extensive body of intellectual texts, the world's largest collection of manuscripts, and its documented tradition of texts, thinkers, and schools in a wide range of fields, the Indian civilisation has always placed a high premium on knowledge. The only difference is that in some people, it is in a dormant state, which needs to be awakened again. This requires a proper place in our school's curriculum and textbooks.

Talking about tradition in general, Prof. Kapoor observed that knowledge is constituted, stored and maintained in the framework of the oral culture. Oral cultures have in-built mechanisms for the recovery of texts. There were different text maintenance/renewal mechanisms to keep the thought alive and re-contextualize them through commentaries, adoptions, retention, translation, reduction, regeneration etc. Along with its framework of the oral culture of knowledge, India has the world's earliest poetry (Rigveda) and the earliest prose (Brahmanas). The Rishis of India created the largest body of literature, ranging from lyrics to philosophy, astronomy, mathematics, and grammar. He further noted that the concept of zero, infinity, pie value and the number system (1 to 9) are also the inventions of Indian scholars of ancient times. He maintained that without these discoveries by Indian scholars in India, the world would not have computer technology today. These Sanatan (सनातन ज्ञान) traditions of knowledge form the foundational principles of knowledge for the entire humankind.

The Indian tradition of knowledge is akin to the flow of the transcendental Ganges. It never ends or discontinues; instead, it flows perennially. It is alive, and it is eternal. Whatever the situation, there has always been a flow of knowledge for generations, and the root of all Indian knowledge systems is found in the *Vedas*. With continued knowledge traditions, new knowledge also gets added, but the essential nature remains the same. This principle is very much

embedded in the Indian knowledge systems. As the Ganges originates from the bottom of the eastern Himalayas, named **Gomukh** and then from Devprayag to the Bay of Bengal, Ganga flows thousands of kilometres, and there are many tributaries. Similarly, the flow of knowledge in India continued. Therefore, the flow of knowledge in the Indian Knowledge System is considered synonymous with the flow of the Ganges.

Six knowledge traditions exist in the world, viz. Judaism, Jewish, Greek, Christian, Arabic, Chinese, and Vedic. Many similarities can be drawn in Greek, Chinese, and Vedic knowledge traditions. The Eightfold path (*Astanga-Marga*) propagated by Buddhism is also prescribed in the teaching of Confucius and Lao Tzu. Similarly, there are also similarities between the philosophy of Greek and Indian traditions. Although Greek knowledge traditions are geographically located in the west, the thought process of the Greek knowledge system was never a western phenomenon. The debate, discussion, and argument, which were core values of Greek traditions, influenced the Jewish knowledge traditions and both knowledge traditions then influenced the Christian knowledge traditions.

In Abrahamic religions, there is only one God, which is formless. The Abrahamic God is formless but not attributeless. That is why the Judaic God, the Christian God, and the Islamic God are different from each other. So, it is one God but my God and not yours, so it ceases to be one God. Hindus have seen divinity in the form and the formless, as in the case of idol worship. Hindus worship Panchmahabhutas, i.e., Earth, water, fire, air and sky. Therefore, God is real and can be seen in everything. For Hindus, there is no god with a capital G. All are gods and goddesses; Devis and Devtas are worshipped among Hindus. There are 33 crores of gods and goddesses. This does not mean that there are 33 crore different gods and goddesses. Rather in India, we have categories of gods and goddesses. For example, when we talk of different goddesses, there

are different names, but they are all Shaktis, and we worship them as per our preferences. Gods and Goddesses were given different names in various locations across the country as different family members call a beautiful little girl with different names in a joint family.

The logical understanding in the Indian knowledge system is that a formless God has qualities and attributes. So, the two civilisations have fundamental, ontological, and epistemological differences. As we are not a one God people, we are tolerant, we are multiple, we accept different points of view, and our unity is not in terms of a God, not in terms of one mode of worship, not in terms of one goal of life, but it is a unity of consciousness. We have an awareness of all these things. In our tradition, the truth about God is sought in many ways, experienced, or expressed. There is no question of compromising with values like kindness, empathy, charity, patience, forgiveness etc. Since time immemorial, Indian society always believes in logic.

Prof. Kapil Kapoor emphasised how "knowledge has been constituted, stored, and maintained in the framework of oral culture" in Indian traditions. As in scriptural traditions, knowledge in this mode is simultaneous rather than sequential. He said, "In the oral culture, the scholar has a library in his mind, and the speed of information processing is much higher than in the scriptural mode, where the information is first transferred to the mind through the senses." In this case, the memory is loaded with a large amount of data, and the mind has a much larger capacity for data storage than a modern computer's hard disc.

Prof. Kapoor emphasised the importance of "Smriti" in the Indian Knowledge System, citing how *Rigveda* has survived intact for over 5000 years. In contrast, printed in their time, Shakespeare's plays have many textual problems after only 500 years. He said that, for Indians, knowledge has always been held in high regard, and tremendous intellectual effort has gone into preserving knowledge

texts. Even though Hindu culture is not bibliolatry, it has given special status to specific texts, the texts of knowledge, and made them perennial study subjects. The difference, he says, is that there has been complete freedom to interpret and come up with competing interpretations, which is not always present in other cultures. This aspect of Indian knowledge traditions must be incorporated into our school curriculum.

Expressing his concerns about the present-day education system, Prof. Kapil Kapoor observed that the current education system's methods and processes had been a more significant challenge. Universities have become employment bureaus. The knowledge imparted in educational institutions has no purpose. The NEP, 2020, he said, intends to address this problem.

Prof. Kapil Kapoor noted that the outcome of education is being measured in terms of how much pay package the graduates will get after they complete their courses. It seems that educational institutions have become parking lots. The girls are educated until they get married, and the boys keep pursuing their PhD until they get their job. Therefore, changes in the structure and function of the education system are very much required as the first step of reform.

Prof. Kapil Kapoor stressed the need to make state language the medium of instruction for class 1 and above. If young students study the textbook in their language, they will study poems, prose and ethics and understand them realistically. The flavour of the local language will connect the people, and this will help to upkeep the ethos of Indianness (भारतीयता). This is very much required if we aim to decolonise the mind.

Prof. Kapil Kapoor pointed out that there is a debate regarding offering the Indian Knowledge System as a subject. However, it is not required to provide the Indian Knowledge System as a subject. While discussing the Indian Knowledge system, we study thousands of topics. If we combine all of them and make one subject, we lose

much of the knowledge embedded in the Indian knowledge system. It will be like we have developed Indian Culture or the Indian knowledge system as a subject. Suppose IKS students are provided with the Indian Knowledge System as one subject. In that case, the students have little choice to study IKS and have to depend more on learning other foreign concepts. The Indian Knowledge system cannot be a subject. The area of the Indian Knowledge System is so vast that a person cannot do a PhD in the Indian knowledge system. The student can only do PhD in Indian thought.

Prof. Kapil Kapoor observed that the History of ideas differs from the history of a knowledge system. The students have to work on ideas. This is relevant in India. Vedic parampara still exists in India. In India, Oral traditions have played a phenomenal role in the flow of knowledge. Kathopanishad is still read in Haridwar near the Ganges. A keen observation may well reflect that people are conversing with Shankaracharya and engaged in debate and dialogues. In this way, the oral tradition continues. The learned discourses also continued to grow in people's language, as seen in the works by Ramanuja Acharya.

Deliberating upon the various thoughts of Guru Nanak concerning the Indian knowledge system, Prof. Kapil Kapoor ji pointed out that during the 16th Century, Guru Nanak has immensely contributed towards the Indian knowledge system. From Rigveda to Guru Granth Sahib, there is the flow of Indian knowledge (*Gyan Pravah*). Talking about the connections between *Vedas* and the *Guru Granth Sahib*, he said that the *Rigveda Samhita* is the core text and is a collection of ten books (*maṇḍalas*) with 1,028 hymns (*sūktas*) in about 10,600 verses and *Guru Granth Sahib* has ten *Gurus. Vedas* are the *Chhands* and *Guru Granth Sahib* is in *Ragas. Brahma* is the root of ideas in both *Vedas* and *Guru Granth Sahib*.

Prof. Kapil Kapoor noted that Knowledge has always been used for the welfare of people. Knowledge (Vidya) written in Vedas

has also reached across the population. The translation of *Vedas* was done, but that did not deter the flow of understanding even among the masses. The emotions and gratitude learned through oral traditions have come to daily life in practical aspects. For example, it can be seen in the *Dhabas* (roadside restaurants) the cook puts some food in the fire as a mark of feeding something first as a gesture of worshipping Agni, the fire God. Such kind of nature worship mentioned in Rig Veda has been translated and enabled in transferring such knowledge even to the common population. The common population also applied the knowledge in their everyday life. Thus, the flow of the Indian knowledge system continues.

About decolonisation of the mind, Prof. Kapil Kapoor said that if we want to decolonise our mind, we have to think in Indian languages. Unless we believe in Indian languages and Indian traditions, the thought process (Chintan) will remain subservient, and it cannot become independent. We cannot become creative. People often see the object and subject of their own country and compare it with the west. There is an urgent need to change this mindset. When our poet considers the lake, he views the lake from a western perspective. Instead, the comparison process should reverse, and the poet, whenever he sees the lake of the western world, must remember the lake of our country. When we see our airport, we compare it with the airport of Frankfurt. We need to change our thinking process. There is an urgent need to study our language and own literature. The problem is that we have very few people who know our literature (Granth), and this population is divided into multiple Indian languages such as Hindi, Nepali, Bengali, Odia etc. This is happening because we have given lesser space to the Indian Knowledge System in our textbook and our education system. We must be very open to incorporating IKS in content and pedagogy in each subject and discipline.

There should not be any compromise in adding the IKS components to the curriculum. Sometimes, there was mention of

Bhaskaracharya in Mathematics and Physics, and it is assumed that IKS has been integrated into these subjects. But such kind of approach is not going to help. The education matrix across disciplines should be Indian, and the cream should be foreign. Instead, it is the reverse. In the present education system, foreign knowledge has become a matrix, and Indian knowledge is used as a cream in the whole system. We cannot compare the soul with *Atma*. Overall transformation (*Amulchul Partibartan*) of the education system is essential in the medium of instruction and content of knowledge, and it must be done suddenly.

Prof. Kapil Kapoor concluded his speech with the thought that the present education system is like tangled yarn (उलझी हुई ऊन) and it does not solve any problem. It is non-democratic, non-vernacular, non-federal and non-Indian. We have to think about how to solve the problem. As in tangled yarn, we pull one thread of the wool, and it starts working. Similarly, we must find one such instrument that, once rectified, will help to correct the whole education system, and that instrument is the medium of instruction. He suggested that the state language needs to be made as the medium of instruction in the respective state, and it will solve the problem automatically

While proposing the vote of thanks, Dr. Rajiv Kumar Singh expressed his gratitude to all the dignitaries and guests. He emphasised that there is a great need to include the Indian knowledge tradition in education to solve the degradation of moral values in Indian society

Dr. Singh said that there are many recommendations in NEP 2020. These recommendations are written to provide the scope to feel proud of ourselves and get rooted in Bharat. On an optimistic note, he shared his expectation that this symposium will guide the curriculum development and content about how to feel proud about our culture and be rooted in Bharat. He assured that NIOS would make meaningful efforts in this direction.

Dr. Singh also expressed his gratitude to Shri Avneeshji, Hon'ble Chamu Krishna Shastri Ji, and Professor Kapil Kapoor for their guidance. He also thanked NIOS Chairperson Prof. Saroj Sharma for her invaluable guidance. He thanked Vidya Bharti for collaborating with NIOS on this crucial task.

With this, the inaugural session came to an end.

#### **Day1: First Session**

### Topic: Imparting IKS: Vision and Thought Process behind it

The session began with the formal welcome of the Chairman of the session, Shri. Murli Manohar by Dr. Rajiv Kumar Singh, Director (Academic). Inaugurating the session, Hon'ble Murli Manohar spoke on the topic - Imparting IKS: Vision and Thought Process behind it. He highlighted various points related to the topic. In his opening remarks, he said, "Our country has been imparting education based on the methods propounded by Macaulay for almost two centuries. This education system yielded very few positive results. Still, looking deeply into Macaulay's education system, it is known that this has brought an unforgettable impact on the Indian education system.

Sh. Murli Manohar ji, while deliberating on Macaulay's method, shared that its impact can be seen in the character-building of the students. Another long-term effect can be observed in that students do not believe in Indian tradition and culture. They are not adopting the country's values in their thoughts, behaviour and soul. This has led to the non-acceptance of the knowledge traditions of our great ancient universities, i.e. Nalanda, Taxila etc. Therefore, today serious discussions on these issues are required. This will also be the focal point of the discussion of this session today.

Shri. Ganti S. Murthy Ji started his speech by exploring the real purpose of education. Commenting on the present education system, he said its sole purpose is employment, directly connected with the specific language, i.e., English. This made education in

English and education for employment complementary to each other.

Talking about the realities of the Indian Knowledge System (Bhartiya Jnana *Parampara*), Shri Murthy emphasised that IKS exposes us to a broader reality. Quoting the sloka 'avidyaya mrityum teettvaa, vidyayaamrutmshrute' from **Ishopanishad**, he said that the Indian knowledge system emphasised the acquisition of both *Vidya* and *Avidya*. It helps individuals to overcome death [darkness] through *Avidya* and obtain immortality through *Vidya*.

Shri Murthy said that when we think about imparting the Indian Knowledge System, we always consider its purpose and processes. Discussing the present education system, he said that in today's time, the purpose of education is mainly employment, and processes are learning without understanding. The processes involved hovering around the competitive examinations, securing marks, placement, and salary packages. This has become the framework of today's education system.

Shri. Murthy stressed the need to know the real purpose of education. He said that IKS is based on both physical and spiritual education. That is why its meaning and acquisition method should be changed, leaving no scope for the current western education system.

Shri Murthy shed light on the works of Dharampal in education, stressing that the British administrators scratched the soil and began to look at the root, leaving the root like that led to the beautiful tree perishing. He further said that in the Indian knowledge system, the teaching-learning system had been divided into four quadrants: a student learns 25% from a teacher, 25% from self-study, 25% from peers and 25% from his own experiences. This makes a complete education system which is different from current education systems.

The children of present times need to be taught why they need to know about the Indian knowledge system. They need to be told that studying IKS will help them to become more employable,

support them to emerge as better human beings and contribute more to society. They may ask how they can attain such goals, and we all need to be alert to answer their queries with examples. We all need to answer them how our Indian Knowledge system can help them in various domains such as seed preservation, agriculture, soil conservation and many such priority areas. We need to educate children and the future generation that IKS prevails in the spiritual domain and has practical aspects. We must provide all kinds of perspectives of the Indian knowledge system to children of the present time and future, which will bring confidence in them to learn the Indian Knowledge system.

Shri. Murthy further emphasised that *Artha* is also important among the four *Purusarthas*. He said that in western education, *Artha* is associated only with work. In contrast, from the Indian perspective, it is necessary to associate *Artha* with religion and morality, ultimately leading to salvation. The children need to be taught IKS naturally, and IKS needs to be integrated into content from school to university. IKS must not be taught separately; it must be integrated.

Shri. Murthy said that everyone has a question about how they are related to the universe. Every civilisation has the answer to this in its way. However, the Indian Knowledge system has answered this question very inclusively. Indian knowledge system talks about environmental protection and universal brotherhood holistically. As an example of how sustainable development practices have existed in India for generations, he discussed the tradition of food donation (*Annadan*), which is found everywhere in India. He further emphasised that such traditions are India's basis and way of living.

Shri. Murthy said that we all see God in human beings, which should also be reflected in our real life. That is why it is necessary to include these methods based on the fundamental objectives of education in its natural form in the teaching process.

Shri Shastry ji noted that the Indian Knowledge System is categorised into written literature, oral tradition and skilled tradition. These three types of practices are to be included in school education. Shri Shastri Ji emphasised the need to teach the students from the school level to the higher level of education by incorporating these three into the curriculum. He said ancient Indian civilization and *Vedas*, *Upanishads* and other Indian texts have positively impacted the world. He also spoke about science-based practices and knowledge from ancient India relevant to the modern world.

Shri Shastri Ji also stressed the need to consider whether Indian knowledge should be included in the syllabus separately as a subject or in all the topics according to the need of the subject. For this, he talked about considering three things and asked to see them in all areas of life –

- Why should Indian knowledge tradition be included in a curriculum?
- How to teach Indian knowledge traditions?
- What is the subject matter for the Indian knowledge tradition?

Shri Shastri, while considering the above points, stressed the need to keep in mind the fundamental element of Indian knowledge tradition, spirituality, because spirituality is the soul of Indian knowledge tradition.

Furthermore, he mentioned that the Indian knowledge tradition is infinite. He further said that there are three major parts of Indian knowledge tradition – Indian language, knowledge tradition and innovation. All these together constitute the Indian knowledge tradition. The primary source of knowledge emanates from Indian languages. He said that Sanskrit literature was a laboratory earlier, but now it is confined to temples. He said the ancient knowledge tradition should not become an object of worship. The object of

speech should not become an object of respect. When it is respected, people do not use it properly. He said that Sanskrit, Vedas and our knowledge must not remain confined to the temple, but Sanskrit should emerge on the world stage.

Sh. Shastri Ji pointed out that the knowledge we deliver must inspire people to gather more knowledge on IKS. If we teach the Indian knowledge system until class 12th, it will at least motivate 10 out of 100 students to aspire to do research in the Indian knowledge tradition. Our communication should be strong. If we can do this kind of assertive visual communication in the lessons of our Indian knowledge system, it will be of great benefit. Overall, after studying up to class 12th, there should be such a feeling in the student's mind about the Indian knowledge system that he will study it more and research it.

Proceeding further with his point, he placed various arguments. He also mentioned that what is most important is that the students need to be informed about Indian Knowledge traditions.

Shri Shastri said that the Indian language, art, history and philosophy play an essential role in student mind and intellect formation. This is the essence of our original culture and tradition, which Macaulay's education system affected. To revive the Indian knowledge tradition and culture, we need to make every effort along with a long-term action plan so that the glorious history of India can be known to the world. These efforts are the seeds of IKS, which will bear fruit in the coming time. With this, the Indian knowledge tradition can be restored and flourish.

Various questions were taken up at the end of the session. Some of the main questions are as follows-

Question 1 How to relate historical examples in the Indian context to the present perspective?

Question 2 How to preserve and translate manuscripts and inscriptions?

#### Day 1: Second Session

### Topic: Indian Education System: Issues, Challenges and Need to Adopt Bharatiya Approach

The third session was chaired by **Shri V. Ramanathan**, who, after introducing both the speakers, started the session with Annie Besant's statement, "Without Hinduism, India has no future. Hinduism is the soil into which India's roots are struck, and torn out of that she will invincibly wither as a tree torn out of its place." He also described the importance of the Sanskrit language in modern India and invited Prof. Pawan Sharma to express his views.

Shri Pawan Sharma, Professor and Head, Department of Political Science, Ch. Charan Singh University, Meerut, U.P. started his speech with the example of the mantras of *Rigveda*; he threw light on nation and nationality. He told the origin of assembly, committee, parliament and army coined from the *Rigveda*. He mentioned that with the evolution of time, the meaning of the word nation had been changed in the form of language, caste and religion.

Sh. Pawan Sharma emphasised that we Indians compare our work with others when we make new inventions in different areas of Science and Technology, Art and Literature and give credit to other countries. It is necessary to know the primary source of the Indian Knowledge System (IKS). To increase this knowledge, we need to use "Brihadaranyaka Upanishad" to correctly establish or deliver this knowledge.

Shri Uday S. Dixit, Professor, Indian Institute of Technology Guwahati, Assam, said that we need people from the field of Science and Technology, Indian knowledge tradition, Sanskrit, Indian philosophy and linguistics, as they can spread the Indian knowledge tradition with scientific temper. He also highlighted how the knowledge of Hindi or Sanskrit could be applied more effectively.

Sh. Uday Dixit further shared that expanding any language in written, oral and traditional forms is necessary. Still, we can understand the language more effectively in standard form than in oral and written forms. Similarly, the Indian Knowledge System will provide soulfulness to the learners. He also added that in Science and Technology, IKS could be integrated as a part of the curriculum or separately, which will help the students to move forward in their life along with moral values and scientific temperament.

Shri V. Ramanathan concluded the meeting with a vote of thanks.

### Day 1: Third Session

## Topic: Intellectual Foundations of IKS: Historical, Cultural and Social Perspective

Shri. V. Ramanathan chaired the third session with a warm welcome and introduction of both the guest speakers: Shri. Sanjay Sharma and Shri Shrinivasa Vankhedi.

Based on a composition by Purandara Dasa of Kannada, the session started with the thoughtful statement, "how the tradition can be passed on to the next generation". This provided the basis for promoting and assimilating the Indian Knowledge System.

Sh. Sanjay Sharma, Professor, Indian Institute of Technology BHU, Varanasi, UP, emphasised the session's theme by comparative analysis between procedure and product of the Indian knowledge system. The Indian knowledge system is the present education system. He proved that procedure plays a pivotal role in making the IKS relevant in the context of the changing environment in the current education system to find the result in the form of a product.

The western world studied the conscious, and the Indian people worked on the superconscious. The knowledge of science we received in ancient times; why can't that knowledge be researched today? When we were capable, we acquired this knowledge, which must be expressed and disclosed with evidence. We are currently capable enough to find that knowledge in our country's mainstream of modern education. We should build separate laboratories in the four directions of India, East. West, North and South, so that, for example, we can get evidence of Nagarjuna's observation that gold can be obtained from mercury

Shri. Sanjay Sharma suggested that effective methods and processes be adopted not only for the propagation of the IKS but also to be implemented to prove the relevance of IKS at different levels of education.

Shri ShrinivasaVarakhedi Ji, Vice Chancellor, Shri Lal Bahadur Shastri National Sanskrit University, Delhi, stated in his speech on the observation that the study of IKS covers the broad domain which provides the basis to be aborigine of the various subjects such as natural science, social science and languages. In the present scenario, the educational system and policies must be designed to allow the learners to specialise in any particular subject under the premises and approach of Indian philosophy. The Indian knowledge tradition cannot be seen as fluid because it has its form.

The speaker concluded the session by saying that the induction of IKS will undoubtedly provide the basis to change the scientific temperament and attitude of the learners so that they can be much more adaptive in their way to develop a research-oriented learning process.

Since both parameters are different, this knowledge can be imparted and expanded only based on experiments. Eventually, Indian mathematics, spiritual practice, philosophy and wisdom should be promoted. There is an important relationship in *Miti Mana Praman*, which should be increased. We saw only one form of Indian knowledge tradition, which should be united in all its forms. Knowing about the object (*tatva*) and foundation (*vastu*) is also required.

With these messages, this session was concluded by V. Ramanathan

#### Day 1: Fourth Session

### Topic: How to Integrate IKS in textbooks and other novel modes of learning

The session started with the welcome of the guests and a brief outline of the session by Dr. Rajiv Kumar Singh, Director (Academic) NIOS. He highlighted the following key points to be discussed in the session.

- How to incorporate the Indian knowledge system into the curriculum and textbooks?
- How should the material be evaluated?
- How should evaluation be done at different levels?

At the same time, Dr. Singh also suggested that the utmost attention be given to choosing the content of the subjects to be covered at the primary, secondary and higher levels.

Shri Kshitij Patukele, Professor, Bhishma School of Indic Studies, Pune, started his deliberation with the point that "Indic knowledge is a value addition to life." When asked how it can be value addition, he suggested that once you practice, learn, understand and feel it, you can realise its usefulness. The challenge is that we perceive everything from the economic perspective, and *Artha* (Economy) has become very important than all other aspects. Therefore, life has become more challenging in India and throughout the world.

Shri. Patukule shared that Knowledge can be measured but not Vidya because, like fluid, it is dynamic. He said that because Macaulay adopted the education system, we perceived that knowledge could only be imparted through educational institutions. In Indian culture, the centre of study and learning included educational institutions

and temples like Vidyapithas. In temples, the such ecosystem was created in which both *Vidya* and *Artha* (money) were acquired.

Shri. Patukule highlighted that India is a knowledge-based society with a rich tradition. Education should aim towards all-round development. But now the idea of development has changed. The perception of *Sukh* (enjoyment) has also changed. People are talking more about their rights and less about their duties. People have become self-centred and plan to accumulate as much as they can. Such an idea of development did not exist in the earlier Indian education system. Our life was classified into four *purusarthas* and four *ashrams*.

Commenting upon the present-day management education system, Sh. Patukule said there is a negative perception that management is only about profit-making for the present and future. Management is perceived as only about industries, enterprises and service groups. For these groups, leadership is only successful if it helps in continuous economic growth, and it does not matter whether it benefits the world (*dhartimata*) or other people. Presently, a sharp division exists in the social structure between the haves and havenots, which is an unhealthy development for a society where more than 70 per cent struggle. He emphasised that IKS talks about life cycle management, including four *Purusharthas* and four *ashramas*. We must think about the well-being of everyone.

Shri Kshitij Patukele pointed out the difference between Western and Eastern thought, especially Indian thought of life. Western thought advocated for Survival of the fittest, where people with money, energy and power will survive and have the right to survive. On the other hand, Eastern thought advocates that there is no fight to survive, and everyone is allowed to survive. Indian knowledge system accepts and supports "वसुधेवकुटुंबकम", and everyone has the right to lead a happy life. We measure the growth system of India based on western parameters such as GDP and happiness index.

We must listen to the inner voice of India, which is the Indian Knowledge System and should be incorporated into education, business and all aspects of life.

Shri Patukule stated that we need to think about how the Indian knowledge system can be taught to the youth of the present generation. Regarding content development processes, he suggested that:

- Content needs to be written in a simple manner.
- While developing content, it should be kept in mind that it should help manifest perfection in an individual.
- The learning journey should be enjoyable and worth experiencing for the learners.

Shri. Patukule also suggested that the content be included in different levels of education. He proposed that for below class 5, the children need to be taught with Small stories, mantras and shtotras. The students should learn how to maintain relations. Similarly, Indian sports need to be promoted among children. He also prescribed that works of Bhskaracharya and Brahma Bhatta should be taught to children of classes 5 to 9, and *Ramayan* and *Mahabharat* also need to be added. In the curriculum prescribed for classes 9 to 10, there is a need to have the components of life skills, value education and *samskaras*, which will help them make their life comfortable in everyday life, and they must emerge as better human beings. He said that emphasis is to be laid on providing age-appropriate education.

Shri Patukale suggested incorporating the Indian knowledge system by connecting it with the current curriculum at a different level of education for the epoch-making changes. For this, positive content that generates interest should be written and included in the textbooks, which is very important to suit various stages of learning and also as per the child's age. The use of modern technology can

play a very beneficial role in this, so there is a need to promote its use.

Shri Patukale emphasised further that efforts should be made to integrate experiential learning components, and the written content should be updated timely to suit learners' interests. He also pointed out that the contents delivered must make learning joyful and beneficial to learners. Wherever necessary, a story-telling method may be used

Discussing the use of technology in education, Shri Patukule said there is a need to use recent technology education to promote the Indian knowledge system. He pointed out that Mobile technology can be used as a tool in IKS, and it should aim at renovating the Indian knowledge system. In the end, he suggested that the whole education system must seek to teach *sarve bhabantu sukhinah*. He ended his speech with optimism that such determination would help create 'Nav-yug'.

Shri Ram Sharma, Associate Professor, Center for Indic Studies, Indus University, Ahmedabad, Gujurat, said that India has always been identified as a knowledge tradition, a knowledge culture. Many ancient civilizations have considered India's contribution to the field of knowledge. Not only in ancient times but across generations, India has always been the source of knowledge to other civilizations and cultures from time immemorial. Shri Ram Sharma said concerning the Indian knowledge system that we must assimilate it entirely so that the fundamental elements of IKS can be fully reflected in the present knowledge system. This means that the Indian knowledge system needs a renaissance. After this, he shared his practical experiences as a case study from the Centre of Indic Studies of Indus University of Ahmadabad about how they have integrated the Indian Knowledge System into their courses. Their institution's micro and macro visions focus on integrating the Indian Knowledge System.

Shri Ram Sharma highlighted that IKS could be integrated into most subjects, and online courses may also be developed in the area of IKS; it will help to reach a broad spectrum of the population in a limited time frame. For example, he said that this university had taken the initiative to make IKS a subject in the core curriculum in the first year, irrespective of different courses, whether engineering, management, design, or architecture. It helps students learn and develop a foundational knowledge of IKS, which will help them comprehend more about IKS if they want to specialise in different areas of IKS. He stated that because IKS has various ideas which can be embedded in different disciplines, a multidisciplinary approach, an integration approach, and a holistic approach are highly desirable. This helps the students to get acquainted with the Indian Knowledge system within the disciplines of students' choice rather than studying it separately.

Shri. Ram Sharma gave comprehensive examples of connecting various points of IKS with the current education system. Firstly, he said that multiple theories of economics have to be integrated into the curriculum in Indian relations. For example, the *Arthashastra* by Kautilya (Vishnugupta) should be added as much as possible in the current context wherever it is needed.

Secondly, he said that along with the English language, it is essential to give comprehensive attention to Indic languages so that the Indian regional languages will be studied consciously and the texts written in our languages will reach a large and wide section of society.

As a third point, he also stressed that the IKS should be included in the education system from the primary level to a higher level or advanced course level in various courses.

At the end of the session, the speakers focused on the fact that the Indian education system should be based on the concept of harmony, benevolence, and God at its core. Dr. Rajiv Kumar Singh, Director (Academic) NIOS, delivered the vote of thanks to all the scholars for giving valuable thought points for the symposium and also stressed the need for reconciliation between the present and ancient knowledge.

#### Day 2: First Session

### Topic: How to introduce Sacred Texts of Sanatana Dharma in mainstream learning

Initiating the session, Hon'ble Shri Chamu Krishna Shastri Ji, Trustee Secretary, Sanskrit Promotion Foundation, introduced both speakers. Introducing Shri Sampadanand Mishra, he said he is working in higher education and school education. Both scholars are well-versed in their subject and are associated with various textbook development committees at the school level. He said it is a matter of great pleasure that today we will discuss the integration of Sanatan Dharma in the maximum number of textbooks.

Taking forward the session's proceedings, he invited the first speaker, Shri Ram Nath Jha, Professor, School of Sanskrit and Indic Studies, JNU Shri. Jha began his speech by thanking the *Rishi* tradition. This tradition of knowledge has been going on since time immemorial and has kept Indian culture and tradition alive. In the western view, the core perspective is human consciousness; everything is unconscious except humans.

Sh. Ram Nath Jha further said that *Bhagavad Gita* talks about knowledge, including science, and that it becomes yoga when knowledge and science go together. He said Adi Shankaracharya explains it so that if we understand something from a theoretical point of view, it is called knowledge. When it is experienced in real life, then it becomes science. In this way, both heritage and experience are essential in our life. Shri Jha said that we see the vision of India. The word philosophy is in every aspect of life, in the

form of gross, subtle, causal and ultimate truth. Both these aspects affect all aspects of life.

According to the sages, personal happiness is small and universal happiness is significant and everlasting. The root of India is the desire for universal happiness, which must come into our curriculum. The same knowledge tradition of India has been accepted naturally in modern science. Scientists like Einstein etc., have acknowledged the importance of ancient knowledge of India. He said that according to the Vedas, everyone could be different from the point of view, but the origin is the same, and a thread in the *sattvic* knowledge ties all.

Today we also call *Ishwar* God, but behind our vocabulary are thousands of years of knowledge and thought processes. *Ishwar* is the one who controls us from within. God controls the creation from the outside. In this way, *Ishwar tatva* (element) is in many forms. Today it is required to bring the core of Indian society and tradition, i.e. parents, husband-wife and family, into the textbook.

Shri Sampadanand Mishra, Dean - Culture, Director, Centre for Human Sciences, Rishihood University, said in his statement that he wants to put forward the practical side of the discussion. He presented through videos to put his ideas to include *Sanatan Dharma* in Indian textbooks. According to him, the word 'education' should not be used; instead, the term 'study' should be used according to etymology.

Sh. Mishra said that according to the ancient sages, what is the examination goal? The goal is to gain knowledge of Indian tradition. Education is not successful without enlightenment; that is why the real identity of the sages is their self-realization and not their dress. So today, there is a need to incorporate fundamental ideas and vision in the curriculum and Indian languages can be an effective medium for it. He said that Sanskrit could be learned from other Indian languages, and from other Indian languages, we also can learn Sanskrit. In this way, we can also incorporate the Indian

knowledge System when learning a new language. In this context, he also cited the example of a school running in Lucknow where Sanskrit is taught compulsorily from Nursery to Class VIII, which has positively impacted the students and their families.

He further said that's why we talk about 'Vasudhaiva Kutumbakam'. The vision of living is given in the Vedas, which needs to be imbibed in the curriculum today. In the ancient knowledge system, only qualified and capable persons were sent to social life to contribute to society. Today its inclusion in the curriculum will create an efficient and competent person. *Sri Aurobindo* also spoke of enlightenment because you cannot understand the soul of India without knowing spirituality. That is why there is a need to restore the entire knowledge System available in Indian languages. Shri Mishra stressed the inclusion of folk life and folk knowledge of India in the knowledge tradition.

At the end of the session, Shri Krishna Shastri ji thanked both speakers for their elaborative speeches.

### Day 2: Second Session

# Topic: How to disseminate IKS content to the present generation

The session began with Professor Saroj Sharma, Chairperson, NIOS, who welcomed the guests and presented a brief outline of the session. Professor Saroj Sharma kept some of the main points for discussion in the session before the speakers, i.e., How to pass on the content of Indian knowledge tradition to the present generation? What methods or means would be suitable for this? So that the present can be adjusted and merged with the ancient knowledge and can be identified with the education system.

Shri Pankaj Gupta, Professor, Jindal Global Law School, said that in the context of the Indian Knowledge System, it is necessary to choose the proper subject matter to prepare it, but also its promotion and dissemination are equally important so that it can reach more and more people so that its fundamental objective can be fulfilled for the welfare of all.

Through this I.K.S. symposium, the roots of Indian Knowledge and tradition can be linked to the needs of the present society. Shri Gupta ji emphasised using technical knowledge, different Mediums and new technology for promoting IKS. It is conducive to increasing the global reach of India. Shri. Gupta ji stated that technology should also be used in content creation (presentation of examples and stories) by keeping the interest and ability of the students. Along with this, the contribution and participation of youth are also considered very important for the wide publicity of IKS content.

Shri Gajanan Londhe, Executive Director of Samvit Research Foundation, stated that I.K.S. Content creation and dissemination is an ongoing process. Also, it is a challenge to reach the related content to the people and students of different regions in India. Shri Gajanan ji suggested preparation of books in IKS for students should be based on pre-reading, post-reading, activity workbook and supplementary reader and teacher handbook and teacher reference book for teachers etc. Along with this, there is a need to create a resource manual for the awareness and participation of schools, families and community. Shri Gajanan ji also talked about selecting the age-appropriate subject matter for the students; for example, IKS for young children in the form of stories, games and music can be used.

At the end of the session, Professor Saroj Sharma proposed a vote of thanks to the speakers and said this discussion would prove helpful in developing creativity in the students. Along with this, teachers should be motivated to use these examples and stories more and more in the classroom, as well as ensure the participation of the community; these topics can be propagated and disseminated more and more.

During the Valedictory session of the symposium, the eminent scholars made the following recommendations and suggestions for establishing the foundation of IKS.

- 1. There is an urgent need to incorporate IKS into the course curriculum, which should be compulsory.
- 2. The central point of the Indian knowledge system should be based on the concept of Panchkosha, which is based on the fundamental idea of the realization of *Sarvebhavantu Sukhinaha* and *Sarve Santu Niramaya*.
- 3. Also, we need to identify related examples available in the ancient text, like *Upanishads*, including Astrology, Ayurveda, Natyashastra, Veda, Vedanga, and Shadarshana and implement them all in the current curriculum.
- 4. Indian Knowledge System (IKS) can be fundamentally meaningful, sustainable and holistic only when it is at par with western philosophy. There is a need to adopt analytical, accurate and significant knowledge.
- 5. The basic concept of IKS must be available on digital platforms, which is the current demand to disseminate the various references of our epics and historical evidence, which plays a vital role towards knowledge-enriching missions among Indians and the people of the world. This provides a sufficient basis for continuous dialogues to understand the scientific approach, essential in disseminating the Indian knowledge system broadly among young generations.
- 6. Besides CBSE, the other State level education boards should also add IKS as a curriculum so that there will be a similarity of education in Indian philosophy on a large scale.
- 7. There is an urgent need to study more than 10 million manuscripts and find hidden references related to IKS.

8. There is a need to make Indian knowledge available in a new and exciting form by using technology to understand, explain, and deliver Indian knowledge efficiently.

After this, the session ended with thanks to all the Scholars and distinguished dignitaries.

### Day 2: Third Session

### Topic: Open House Discussion and Workshop

The moderator was Prof. Rabi Narayan Kar, Principal, Shyam Lal College, University of Delhi. He began the session by thanking NIOS and Vidya Bharti for this programme. After that, he urged experts and participants to deliberate on the key points that emerged during different sessions and ask for suggestions for integrating Indian knowledge traditions in various subjects.

Ram Sharma ji said the Indian Knowledge tradition is vast and comprehensive. One person cannot deliver all lectures. Therefore, we can collaboratively develop content inviting experts from all over the country. For example, we can ask the experts in Yoga, Ayurved, Vedic chanting, classical dance, and folk art. We can also use the existing material available in IKS to develop the content.

Shastri also said that IKS could not be delivered as a separate subject. Instead, the contents of IKS can be integrated into different subjects to be taught. We have to think about how to incorporate these concepts in IKS. He also suggested that we all have to strategize the methodology of writing the textbook. We also have to think about how to collect IKS textbooks from different places. Again, we have to find out the filtering procedures, and also, we need to find out that the collected material needs to be authentic. He also said there is a need to devise a methodology for presenting the content meaningfully. He noted that exercises and student activities should be incorporated into the textbook.

After that, different questions were invited from the audience.

The following suggestions were made in the open house discussion:

- 1. All the documents and information related to the Indian Knowledge System be made available in one dedicated portal.
- 2. In each domain of IKS Expert group may be constituted, and in each group, 10-12 experts may discuss and provide their opinion on how to integrate IKS into that subject
- 3. Integrating IKS content in textbooks has different challenges at all levels. Hence, every state board may evolve their strategy as per its needs and challenges.
- 4. All focus groups of NCF must have IKS experts
- 5. We must keep the goals of developing moral values in children; therefore, these also need to be integrated into teaching and pedagogy.

### Day 2: Valedictory Session

Prof. Saroj Sharma, Chairperson, NIOS, thanked all the eminent scholars from different parts of the country for their practical deliberation about integrating IKS into Mainstream education. She said that the challenge before the Indian education system today is to teach Indian ethos into the minds of young children through the integration of Bharatiya arts, literature, and culture into the curriculum

Prof. Sharma stressed the need to incorporate Indian philosophy and science, Vedas, Ayurveda, traditional knowledge, Indian languages and literature in the school curricula. She also said that New Education Policy 2020 emphasized creating a sense of pride towards Bhartiyata in the learner's inner self and establishing our ancient knowledge, skills and values. She highlighted three fundamental

bases of any education system, viz. content development, content dissemination and assessment which is the main thrust of any curriculum. So there is an urgent need to deliberate on teaching values among our young students. That can be done either through practice in the classroom or innovative pedagogical methods that can be evolved in daily life that will imbibe Indian knowledge traditions through experiential learning. In her concluding remarks, she said that Indian knowledge systems have the potential to improve the quality of life drastically. We should be proud that we were born in a great nation like India.

Sh. Murli Manohar, the regional coordinator of the Vidya Bharti South Central Region, thanked Professor Saroj Sharma, Chair Person, NIOS, for the excellent hospitality. He said to go deep into our literature which is a treasure house of knowledge; we need to preserve our knowledge system by giving full support to our languages. He further noted that the Indian Knowledge System could not be taught to our young students through foreign languages because the literal translation of Indian concepts in foreign languages, such as English, will change the concept's meaning, thereby suggesting the misrepresentation of an idea. Therefore, the concepts rooted in Indian traditions must be transferred to our students in our languages.

Kailash Sharma ji, President, Vidya Bharti, said People have high hopes for the present NEP-2020 policy, and NIOS is doing its best to make purposeful education possible. Through the means of various initiatives taken by the NIOS, its stakeholders desire to be successful in achieving its aims and objectives. Both quantity expansion and quality enhancement in our education have been felt for a long time. NIOS is working on quality education and has contributed significantly to school education by empowering millions of children deprived of quality education. As per the NEP's recommendations, the present education system needs a

complete overhaul. It mandates preparing the curriculum from the foundational stage grounded on the Indian ethos, which is very important to retain our glorious ancient past that revolves around Vedic philosophy.

In his remarks, Shri Raghunandan Ji, National Organizing Secretary, Vidya Bharati Uccha Shiksha Sansthan, congratulated professor Saroj Sharma, chairperson, NIOS, and every person in the institution, to have organized such programmes very systematically. He said that it is imperative to sow the seeds of Indian culture in the minds of our young generation. He suggested that integration of the Indian Knowledge system into the curriculum will indeed inculcate the values and will help to preserve our traditions.

Shri. Shobhit Mathur, Vice-chancellor of Rishihood University, in his speech, discussed the experiments undertaken by Rishihood University and the implications thereon. He said that there is often a talk on curriculum, particularly about the Indian Knowledge System. Further, he stressed the need to think over the idea of institutions, especially in higher education, to impart IKS because, ultimately, this will provide a positive and supportive environment to transmit knowledge on IKS. He noted that the traditional educational institutions, with their practised approaches, would not help in this regard.

Shri. Mathur highlighted the need to set up an IKS-based institution, even in the private sector, as this is not the work of the government only. But we rarely discuss it. He said that we often talk about Nalanda and Taxila, but what needs to be addressed is how we can create such institutions of repute in present circumstances. He observed that he has volunteered for many Hindu faith-based organizations in the USA. After completing five years in the USA, he returned to India to pursue his calling and pay back to the motherland. When he returned to India in 2009, he did not know much about India. Then he visited many places and started the 'Youth

for Sewa' organisation. He realised that education is dull; no one is happy, neither the parents, the students nor even society. Everyone is not happy about the present-day educational scenario. He noted that our tax payer's money would be wasted if a fruitful return is not gained due to misplaced priorities regarding the goals and purposes envisaged and practised in our educational field. Through his experience while working for the 'Youth for Sewa', he noted that people are willing to contribute to society's well-being. Many young professionals and students volunteered in his work. So this was his first experience as he realised that it was not producing much, but still, people were eager to contribute. He also experienced, especially during India against corruption movement and during Modiji's first electoral campaign, that many people, especially the middle class, came out of their houses to change the system and the society. At least it was happening for the first time in his life experience. Before this, he noted, young people thought of their career, a settled job (preferably in a foreign country), and a settled life.

Further, he noted that in the wake of the campaign against corruption and renewed hope fuelled by Shri Narendra Modi's entry into the national political arena, he saw a significant shift in the young generation's view of their personal, professional, social and national psyche. But, he observed, the challenge is channelling this renewed vision and energy of our younger generations. With this vision in mind, along with some friends from IIT Delhi and IIT Bombay, he started 'Vision India Foundation' to engage youngsters in public policy and governance. They thought it would be a good entry point because people are interested in contributing to policy-making and rejuvenating our governance structures. He and his associates could do it fast and effectively, as left-liberal tendencies had not yet plagued these institutions' social sciences and humanities departments. So, they started many pieces of the training programme under the Vision India Foundation.

While discussing how the courses started in the institution, Shri Mathur highlighted that the university began with many short-term courses. He said that the university typically starts offering the programme with the undergraduate course, then postgraduate and later plans for a non-degree programme. But the journey at his university is reversed. Initially, it was not a university, so it started with a certificate programme. It expanded our network across the country and connected us with many like-minded people who came to know about it.

Shri. Mathur noted that it was, perhaps, the first attempt to train young minds in policy and governance. We studied many institutions worldwide and founded the Matsushita Institute of Government and Management. It was perhaps the world's only institution focused on public leadership and governance. A businessman founded it, maybe the founder of Panasonic, to create leaders by Japanese ethos 40 years back. Many corporate, PMs, and bureaucrats have studied there. So, it was thought to develop such an institute in India based on IKS to create leaders. He said that they continuously reviewed their stand and refined their vision. Mostly higher education is viewed through the prism of education for suitable placement. But it was realised that this would not work, and there is a need to think beyond it. Therefore, Rishihood University puts a premium on the individual's development. The word Rishihood came from Swami Vivekananda's lecture. Swami Vivekananda said that education and the purpose of man should aim at reaching the state of rishihood, individual development, vision development, and system development leading to 'Rashtra Nirman'. These were generally a theory of change that we thought of. Quality education must focus on individual growth, vision development for quality leadership and research so that the narrative of society and thinking process can be changed positively.

Shri. Mathur said that there is a need to create institutions and universities where any idea or thought is not coming from an

individual but from the thought process and influences of learning systems of the institutions and universities, and the graduates from such institutions and universities can contribute and meaningfully engage in working out quality NCFs and NEPs in future. Along these lines, the objective of Rishihood University was outlined to focus on system development. So, it started the journey to create good education, sound research, and effective public policy and finally to nation-building. He said that the team at Rishihood continuously explores the objectives of 'what should be the focus of education, what is missing among students' and 'what should be the focus of Rishihood'. So, the team thought about three attributes of a student – *Jigyasa* (desire to know), *Chikirsha* (courage to act), and *Ananda* (joy in being). All these things are missing in India's education system.

Shri. Mathur ji said that Curiosity (Jigyasa) in classroom situations or nearby circumstances could be instilled among students. On these lines, there was an emphasis on trying a unique pedagogical experiment in Rishihood. Discussing the method of how IKS can be taught in a system, Sh. Mathur ji deliberated that the emphasis was laid on teaching diplomacy then instead of directly asking the students to opt for the four ideas of Kautilya given in Arthshastra. Elaborating further on the concept, he said that in a diplomacy session, we could take Russia and Ukraine issue. There may be debate and discussion within the teaching, and we can think about possible solutions. During debates and discussions, the instructions of Kautilya about Sam, Dam, and Bheda can be discussed. He said that in Rishihood, such an integrated learning approach is being taken instead of directly teaching about Arthashastra in the classroom. So with a specific case, it is explained to the students about the limitation of western thought. And every attempt is made to motivate students to a more profound exploration of the concept so they can know that solution exists in our traditional system. This will enable to creation Jigyasa among students.

Shri. Mathur ji held his viewpoint that in Rishihood, the institution is also trying to create 'Chikeersha' means the courage to act among students. It has been found that there is a lack of willingness to work among the present generation. So, an attempt is made how-to create Chikirsha among students. There is one year course on the PG Diploma on Public leadership with a 50% component of field-based learning. An attempt is made to apply knowledge in real life, and then the analysis is made, and the students are encouraged to go back to the field to apply this knowledge again. So, there is a combination of both field placement and classroom teaching. So, every effort is made to create unique pedagogy of knowledge and continuous action in the field.

Discussing the third attribute of a student, i.e. Ananda, Shri. Mathur ji said that if we meet with youngsters, it seems they are not enjoying the learning process. If there is no joy, then what is the meaning of life? Such a situation has consequences, too, i.e. mental depression, suicidal tendencies and other negative tendencies. Compared to the previous generation, they have better facilities but not the joy or Ananda. Therefore, there is a need to create such campus life, which gives them the joy of living. An attempt was made to develop Rishihood, a 100% residential campus where learning will happen day and night, providing space for joyful learning. Therefore, continuous efforts are being made to create such a campus culture.

Shri Mathur ji emphasised that IKS in education is not limited to curriculum and pedagogy. We must think about how we can ultimately institutionalise the university's vision, culture, curriculum design, and pedagogy. So, the attempt was made uniquely at Rishihood, starting from recruiting and motivating such faculty. Usually, motivation in education is for teaching and research purposes. However, Rishihood University endeavours to bring teaching, research and consulting together on the board. Therefore,

Rishihood is ceaselessly churning on bringing about individual, vision, and system development through teaching and learning. He also said that the appraisal system in Rishihood is also different. The attempt is made to analyse how research has a social impact, how ideas with government or institutions were implemented, etc.

Shri. Mathur ji also said there is also a need to be a line of thinking about how this institution will be governed. It requires a deep thought process. Suppose we think of bringing back the old gurukul system. Then how can this be implemented in the present situation? Most private institutions are family-run. But this was never the objective. So, we need to consider how we can make a society-driven institution. So, in Rishihood, it is being run with collective leadership. So, there are multiple founders with collaborative leadership. In Rishihood, there are not only financial leaders, but the institution also has leaders, spiritual leaders and social leaders as its founders and governing structures. These leaders form the founding board. So, it is board driven university instead of a family-driven university. So, this is an attempt to create a unique institution. He mentioned that they are still trying to improve it. Further, an attempt is being made on how curriculum can be designed and offered to students. Along these lines, the institution is continuously experimenting and improving.

Shri. Mathur ji also highlighted that NEP 2020 was beneficial as it paved the way for many reforms in our educational sector. He said that Rishihood would be the first to implement UGC's revised guidelines from next year. As UGC suggested first common semester, Rishihood will not offer any course-specific admission, but we will provide access to the university. So, the student will first learn a standard IKS-based foundation course and then select a major as per their understanding during the foundation course and life on campus. If this experiment is successful, the students so enabled would go outside and contribute directly or indirectly to

the nation-building process. But this work cannot be done alone. We must work together. He said that Rishihood is not claiming that it can give all solutions, but the attempt is being made to showcase a model by which more institutions can contribute.



#### SUMMARY OF THE PROCEEDINGS

### **Inaugural Session**

Indians are familiar with authentic Indian knowledge traditions. However, there is a need for awakening. The Indian knowledge tradition is like the flow of the eternal Ganges. The Vedic tradition is the best among the world's major knowledge traditions, and this Indian knowledge tradition is alive in ordinary Indians. The Western civilization understands the importance of our knowledge tradition. We have to move from a materialistic to a spiritual view of life. Our ancient knowledge tradition is vibrant. We have to integrate the Indian knowledge system into our present-day education system.

The entire Indian society is part of the Indian knowledge tradition. India's knowledge traditions' complexity, richness and creativity are pervasive in every aspect of Indian people's lives. As evidenced by its extensive body of intellectual texts, the world's largest collection of manuscripts, and its documented tradition of texts, thinkers, and schools in a wide range of fields, the Indian civilisation has always placed a high premium on knowledge. The only difference is that in some people, it is in a dormant state, which needs to be awakened again. This requires a proper place in our school curricula and textbooks.

In tradition, knowledge has been constituted, stored and maintained in the framework of the oral culture. Oral cultures have in-built mechanisms for the recovery of texts. There was a different text maintenance/renewal mechanism to keep the thought alive and contextualized through adoptions, recitation, translation, reproduction, and re-creation. Along with its framework of the oral culture of knowledge, India has the world's earliest poetry (Rigveda) and the earliest prose (Brahmanas) and the largest body of literature ranging from lyrics to philosophy, astronomy, mathematics, and grammar of various linguistic traditions that got evolved firstly in India. He further said that the concept of zero, infinity, pie value and the number system (1 to 9) also evolved in India. Without such evolved knowledge system in India, the world would not have computer technology used in the present times. These Sanatan (सनातनज्ञान) knowledge traditions are the cornerstones of the entire humankind.

The Indian tradition of knowledge is the flow of the transcendental Ganges of knowledge. It is never ending or broken. It's ceaselessly flowing and remains unbroken. It is alive, and it is eternal. Whatever the situation, there was the flow of knowledge since generation, and the root of all knowledge was Vedas. Whenever any tradition continues, a new form of expertise is added, but the fundamental nature remains the same, and those basics are Indian Knowledge Traditions. The Ganges originates from the bottom of the eastern Himalayas, named Gomukh and then from Devprayag to the Bay of Bengal. The Ganges flows thousands of kilometres, and there are many tributaries. Similarly, the flow of knowledge in India continued. Therefore, the flow of knowledge in the form of the Indian Knowledge System is considered synonymous with the flow of the Ganges.

The six knowledge traditions in the world are Judaism (Jewish), Greek, Christian, Arabic, Chinese and Vedic. The Greek, Chinese and Vedic knowledge traditions are connected. The Eightfold path (*Astangika-marga*) propagated by Buddhism is also prescribed in the teaching of Confucius and Lao-Tzu. Similarly, there are similarities

between the philosophy of Unan or Greek and Indian Knowledge traditions. Although the Greek knowledge tradition is geographically located in the west, the thought process of the Greek knowledge system was never a western phenomenon. The debate, discussion and argument which were at the core of Greek traditions influenced the Jewish knowledge traditions and both the knowledge traditions influenced the Christian knowledge traditions.

In Abrahamic religions, there is only one God, which is formless. But it is not attributeless. That is why the Judaic God, the Christian God, and the Islamic God are different from each other. Therefore, though it is one God, the dogma embedded in Jewish, Christian and Islamic notions related to God is exclusive. Hence it ceases to be one God. Hindus never deny that we make our idols. We even worship stones. We think differently. For Hindus, there is no god with a capital G. All are gods and goddesses; Devis and Devtas are the same. There are 33 crores of gods and goddesses worshipped among Hindus. This does not mean that there are 33 crore different gods and goddesses. Rather in India, we have categories of gods and goddesses. For example, when we talk of different goddesses, there are different names, but they are all shaktis, and we worship shaktis. Gods and Goddesses were given different names in different locations across the country as different family members call a beautiful little girl with different names in a joint family.

There is a fundamental, ontological and epistemological difference between the two civilisations. As Hindus are not a one God people, we are tolerant, we are multiple, we accept different points of view, and our unity is not in terms of a God, not in terms of one mode of worship, not in terms of one goal of life, but it is a unity of consciousness. We adhere to the notion that the truth is one, but that can manifest itself in many ways and forms. We can pursue that in ways convenient for us to follow. Since time immemorial, the Indian society has always been logical and rational.

Knowledge has been constituted, stored, and maintained in the framework of oral culture in Indian tradition. As in scriptural traditions, knowledge in this mode is simultaneous rather than sequential. In the oral culture, the scholar has a library in his mind, and the speed of information processing is much higher than in the scriptural mode, where the information is first transferred to the mind through the senses. In this case, the mind's memory is loaded with large amounts of data, and the reason has a much larger capacity for data storage than a modern computer's hard disc.

The *Rigveda* has survived intact for over 5000 years, whereas Shakespeare's plays, printed in their time, have many textual problems after only 500 years. He said that knowledge has always been held in high regard and that tremendous intellectual effort has gone into preserving knowledge texts. Even though Hindu culture is not bibliolatry, it has given special status to specific texts, the texts of knowledge, and made them perennial study subjects. The difference is that there has been complete freedom to interpret and come up with competing interpretations, which is not always present in other cultures and must be reflected in our curricula.

The current education system's methods and processes have been a significant challenge. Universities have become employment bureaus. The knowledge imparted in educational institutions has no purpose now, whether it is an Indian knowledge system or not. The outcome of education is being measured in terms of how much pay package the graduates will get after they complete their courses. It seems that educational institutions have become parking lots. She is being educated until the girls get married, and boys keep pursuing their PhD until they get their job. Therefore, changes in the structure and function of the education system are very much required as the first step of reform.

The medium of instruction should be the language of the state from class 1 and above. If people study the textbook in their

language, they will study poems, prose and ethics and understand them realistically. The flavour of the local language (भाषा के रस) will connect the people, and this will help to upkeep the ethos of Indianness (भारतीयता). This is very much required if we aim to decolonise the mind.

There is a debate regarding offering the Indian Knowledge System as a subject. However, there is no need to provide the Indian Knowledge System as a separate subject. When discussing the Indian Knowledge system, we study thousands of topics. If we combine all of them and make one subject, we lose much of the knowledge embedded in the Indian knowledge system. It will be like we have developed Indian Culture or the Indian knowledge system as a subject. Suppose IKS students are provided with the Indian Knowledge System as one subject, the students are left with little choice to study IKS, and they have to depend more upon learning other concepts which are foreign in origin. The Indian Knowledge system is so vast that a person cannot do a PhD in the Indian knowledge system. The student can only do a PhD in Indian thought.

The history of ideas is different from the history of a knowledge system. The student has to work on ideas. This is relevant to India. Vedic parampara still exists in India. In India, Oral tradition has played a phenomenal role in the flow of knowledge. *Kathopanisad* is still read in Haridwar near the Ganges. A careful observation of this phenomenon would lead an observer to understand that the conversation with Shankaracharya is ceaseless, and there is a constant engagement in debates and dialogues. In this way, the oral tradition continues. The learned discourses also continued to grow in people's language, as seen in the works by Ramanuja Acharya.

From Rigveda to Guru Granth Sahib, there is the flow of Indian knowledge (*Gyan Pravah*). The *Rigveda Samhita* is the core text and is a collection of 10 books with 1,028 hymns ( *sūktas*) in about

10,600 verses, and Guru Granth Sahib has 10 Gurus. *Ved* is in the *Chhands*, while *Guru Granth Sahib* is in *Ragas*. *Brahma* is the root of the ideas of both the Vedas and *Guru Granth Sahib*.

Knowledge (*Vidya*) written in *Vedas* has also reached across the population. The translation of *Vedas* was done, but that did not deter the flow of understanding even among the mass population. The emotions and gratitude earned through oral traditions have come to daily life in practical aspects. For example, a general observation of the practices followed by cooks working in the roadside 'Dhabas' (roadside restaurants) will reveal that they offer cooked food firstly to *Agni* as a mark of feeding the *Agni Devta* before serving it to people. Such kind of nature worship mentioned in *Rigveda* has been translated, enabling the transfer of such knowledge even to the common population. The common population also applied the knowledge in their everyday life. Thus, the flow of the Indian knowledge system continues.

If we want to decolonise our minds, we must think in Indian languages. Unless we believe in Indian languages and Indian traditions, the thought process (*Chintan*) will remain subservient, and it cannot become independent. We cannot become creative. People often see the object and subject of their own country and compare it with the west. This mode of thinking needs to be changed. When our poet considers the lake, he reaches that lake with that of the lakes mentioned in western literature. This frame of mind needs reversal, as the poet must remember the lake of our country whenever he sees the lake of the western world. When we see our airport, we compare it with the airport of Frankfurt. We need to change our thinking process. There is an urgent need to study our language and own literature. The problem is that we have lesser people who know our literature (*Granth*) and are divided into Indian languages such as Hindi, Nepali, Bengali, odia etc. This happened because we have

given less space to the Indian Knowledge system in our textbook and our education system. We must be very open to incorporating IKS in content and pedagogy in each subject and discipline.

We should not compromise while incorporating the IKS components in the curricula. In the earlier syllabus also, there was mention of Bhaskaracharya in Mathematics and Physics. But let's make no mistake of assuming that IKS was integrated into these subjects previously. This lopsided and half-hearted approach is not going to help. The education matrix across disciplines should be Indian. In the present education system, foreign knowledge has become a matrix, and Indian knowledge is used as a cream in the whole system. We cannot compare the soul with Atma. The entire transformation (*Amulchul Partibartan*) of the education system is essential in the medium of instruction and content of knowledge and must be done urgently.

The present education system is like tangled yarn (उलझी हुई ऊन), and it does not solve any problem. It is non-democratic, non-vernacular, non-federal and non-Indian. We have to think about how to solve the problem. As in the case of tangled yarn, we pull one thread of the wool, and it starts working. Similarly, we must find one such instrument that, once rectified, will help to correct the whole education system, and that instrument is the medium of instruction. The state language needs to be made as a medium of instruction, and it will solve the problem automatically.

### Session on Imparting IKS: Vision and Thought behind it

The sole purpose of the present education system is employment, which is directly connected with the specific language, i.e., English. This made education in English and education for employment complementary to each other.

IKS is much broader than the present education system.' avidyamrityumteettvaa, mashnutevidyayaamrita from Ishavasya

Upanishad, meaning Indian knowledge system, emphasises the acquisition of both 'Vidya' and 'Avidya'. It helps individuals to overcome death [darkness] through Avidya and obtains immortality through Vidya.

When we think about imparting the Indian Knowledge System, we always consider its purpose and processes. Today's purpose of education is mainly employment, and processes are learning without understanding. The processes involved in today's education hover around the competitive examination, increase in marks, placement, and salary package. This has become the framework of today's education system.

It is necessary to know the real purpose of education. IKS is based on both physical and spiritual education. That is why its purpose and method to achieve it have also been changed, whereas the current western education system is still confused between marks and tuition.

In the works of Dharampal ji in education, the Madras education system has been emphasised. In the Indian knowledge system, the teaching-learning system has been divided into four quadrants: the student learns 25% from the teacher, 25% from self-study, 25% from peers and the remaining 25% from his own experiences. This makes a complete education system different from the contemporary one.

The children of present times need to be taught why they need to know about the Indian knowledge system. They need to be told that studying IKS will help them to become more employable, help them evolve as better human beings and contribute more to society. They may ask how they can attain such goals, and we all need to be alert to answer their queries with examples. We all need to answer them how our Indian Knowledge system can help them in various domains such as seed preservation, agriculture, soil conservation and many such priority areas. We need to educate children and the

future generation that IKS prevails in the spiritual domain and has practical aspects. We must provide all kinds of perspectives of the Indian knowledge system to children of the present time and future, which will bring confidence in them to learn the Indian Knowledge system.

Artha is also important among the four Purusarthas. In western education, Artha is associated only with work, whereas in the Indian perspective, it is necessary to associate Artha with religion and morality, which ultimately leads to salvation. The children need to be taught IKS naturally, and IKS needs to be integrated into contents and chapters from school to university level. IKS is not to be taught as a separate subject. Instead, it must be conducted in an integrated manner.

Everyone has a question about how they are related to the universe. Every civilisation has the answer to this in its way. However, the Indian Knowledge system has answered this question very inclusively. Indian knowledge system talks about environmental protection and universal brotherhood holistically. The tradition of food donation (*Annadan*) found everywhere in India is manifested in these age-old Indian practices. Such traditions are the basis and way of living our life in India.

From the Indian perspective, we all see God in human beings, which should be reflected in our real life. That is why it is vital to include these methods based on the fundamental objectives of education in its natural form in the teaching process.

The Indian knowledge System is categorised into written literature, oral tradition and skilled tradition. These three types of traditions are to be included in school education. By incorporating these three into the curriculum, the students need to be taught from the school level to the higher level. The ancient Indian civilization and *Vedas*, *Upanishads* and other Indian texts have positively impacted the world. The science-based practices and knowledge

from old India are still relevant in the modern world. Therefore, we need to consider whether Indian knowledge should be included in the syllabus separately as a subject or in all the topics according to the need of the subject. For this, we need to consider three things and ask to see them about all areas of life –

- Why should Indian knowledge tradition be included in a curriculum?
- How to teach Indian knowledge traditions?
- What is the subject matter for the Indian knowledge tradition?

It is necessary to keep in mind the essential element of Indian knowledge tradition, spirituality because spirituality is the soul of Indian knowledge tradition.

The Indian knowledge tradition is infinite. There are three major parts of Indian knowledge tradition – Indian language, knowledge tradition and innovation. All these together complete the Indian knowledge tradition. The primary source of knowledge emanates from Indian languages. Sanskrit, Vedas and our knowledge mustn't remain confined to the temple, but Sanskrit should emerge on the world stage. Most importantly, the students need to be informed about Indian Knowledge traditions.

Indian language, art, history and philosophy play an important role in student mind and intellect formation. This is the essence of our original culture and tradition, which Macaulay's education system affected. To revive the Indian knowledge tradition and culture, we need to make every effort along with a long-term action plan so that the glorious history of India can be known to the world. These efforts are the seeds of IKS, which will bear fruit in the coming time. With this, the Indian knowledge tradition can be restored and flourish.

# Session on How to Integrate IKS Within Textbooks and Other Novel Modes of Learning

"Indic knowledge is a value addition to life." When people ask him how it can be a value addition, he suggests that once you learn it, understand and feel it, and practice it; you can realise its usefulness. The challenge is that we perceive everything from the economic perspective, and *Artha* (Economy) has become very important than all other aspects. Therefore, life has become more challenging in India and throughout the world.

Knowledge" can be measured but not Vidya because, like fluid, it is dynamic. It is due to the adoption of the education system proposed by Macaulay; we perceive that knowledge can only be imparted through educational institutions. In Indian culture, the centre of study and learning included educational institutions and temples like Vidyapithas. In temples, the such ecosystem was created in which both Vidya and Artha (money) were acquired.

India is a knowledge-based society, and we have a rich tradition. Education should aim towards all-round development. But now the idea of development has changed. The perception of Sukh (enjoyment) has also changed. People are talking more about their rights and talk less about their duties. People have become self-centred and plan to accumulate as much as they can. Such an idea of development did not exist in the earlier Indian education system. Our life was classified into four Purusarthas and four Ashramas.

There is a negative perception that management is only about profit-making and not only aimed at profit-making for present times but also the future. Management is perceived as only about industries, enterprises and service groups. For these groups, management is only successful if it helps in continuous economic growth, and it does not matter whether it benefits the world (dhartimata) or other people. In the present times, a sharp division exists in the social structure between the haves and have-nots, which is unhealthy development

for a society where more than 70 per cent struggle in their life. IKS talks about life cycle management which includes four Purusharthas and four ashramas. We must think about the well-being of everyone whomsoever with us.

The difference between "Western thought " and "Eastern thought", especially Indian thought, is that western thought advocates the idea of the "Survival of the fittest", where the person who has money, energy and power will survive, and he has the right to survive. On the other hand, Eastern thought advocates that 'There is no fight to survive and everyone is allowed to survive'. Indian knowledge system accepts and supports "वसुधेवकुटुंबकम", and everyone has a right to lead a happy life. We measure growth based on western parameters such as GDP and the happiness index. We must listen to the inner voice of India, the "Indian Knowledge System", and should be incorporated into education, business and all aspects of life.

We need to consider how the Indian knowledge system can be taught to the youth of the present generation. Regarding content development processes, it is suggested that:

- Content needs to be written in a simple manner.
- While developing content, it should be kept in mind that the process should help manifest perfection in an individual.
- The process of learning should become meaningful and enjoyable.

It is also suggested the content should be included in different levels of education. For below class 5, the children need to be taught with Small stories, *mantras* and *stotras*. The students should learn how to maintain relations. Similarly, Indian sports need to be promoted among children. The Works of Bhskaracharya and Brahma Bhatta should be taught to children of classes 5 to 9, and *Ramayana* and *Mahabharat* also need to be added. In the curriculum prescribed

for classes 9 to 10, there is a need to have the components of life skills, value education and sanskaras, which will help lead their life comfortably in everyday life and help them emerge as better human beings. Emphasis is laid on providing age-appropriate education.

It is also suggested to incorporate the Indian knowledge system by connecting it with the current curriculum at a different level of education for the epoch-making changes. For this, positive content that generates interest should be written and included in the textbooks, which is very important to suit various stages of learning and also as per the child's age. The use of modern technology can play a very beneficial role in this, so there is a need to promote its use.

Efforts should be made to integrate experiential learning components, and the written content should be updated timely to suit the learners' interests. He also pointed out that the contents delivered must make learning joyful and beneficial to learners. Wherever necessary, a story-telling method may be used

Concerning the use of technology in education, there is a need to use recent technology education to promote the Indian Knowledge System. Mobile technology can be used in IKS and should aim at renovating the Indian knowledge system. It is also suggested that the whole education system must seek to teach *sarve bhantu sukhinah*, and such determination will help create *Nav-yug*.

India has always been identified as a knowledge tradition, a knowledge culture. Many ancient civilizations have considered India's contribution to the field of knowledge. In ancient times and across generations, India has been the fountain spring of knowledge to other societies and cultures since time immemorial. The stakeholders involved in disseminating IKS should first assimilate it entirely so that the fundamental elements of IKS can be fully reflected in the present knowledge system. This means that the Indian knowledge system needs a renaissance. The Indus University of Ahmadabad has integrated the Indian Knowledge System into

its courses, and our institution's micro and macro vision are mainly focused on integrating the Indian Knowledge System.

IKS can be integrated into most subjects, and online courses may also be developed in the area of IKS, and it will help to reach a broad spectrum of the population in a limited time frame. Indus University has taken the initiative to make IKS a subject in the core curriculum in the first year, irrespective of different courses, whether engineering, management, design, or architecture. It helps students learn and develop a foundational knowledge of IKS and will help them gather more concepts about IKS if they want to specialise in different areas of IKS. IKS has various ideas which can be embedded in different disciplines; a multidisciplinary approach, an integration approach, and a holistic approach are highly desirable. This helps students get acquainted with the Indian Knowledge system within the disciplines instead of studying it separately.

There are comprehensive examples of connecting various points of IKS with the current education system. Firstly, multiple theories of economics have to be integrated into the curriculum in the Indian context. For example, the Arthashastra book by Kautilya (Vishnupta) should be added as much as possible in the current context wherever it is needed.

Secondly, along with the English language, it is imperative to give comprehensive attention to Indic languages so that the Indian regional languages will be restored and the texts written in these languages will reach a large and wide section of society.

As a third point, the IKS should be included in the education system from the primary level to a higher level or advanced course level in various courses.

### **Valedictory Session**

The idea of Rishihood and what experiments it has done, what are the lessons learnt and what can be done based on experiences at the Rishihood. There are often talks of curriculum, particularly about the Indian Knowledge System. But there is a need to consider how institutions, especially higher education institutions, need to be established to impart IKS because, ultimately, this will provide a positive and supportive environment to transmit knowledge about IKS. But usually, no discussion happened about it.

Shri Mathur Ji highlighted that the discussion also needs to happen on how we can create an IKS-based institution, even in the private sector, as this is not a work of the government only. But we rarely discuss it. He said that we often talk about Nalanda and Taxila, but what needs to be addressed is how we can create such an institution of repute in present circumstances. He observed that he has volunteered for many Hindu faith-based organizations in the USA. After completing five years in the USA, he returned to India to pursue his calling & contribute to the motherland. When he returned to India in 2009, he did not know much about India. Then he visited many places and started the 'Youth for Sewa' organisation. He realised that education is such a dull sector; no one is happy; neither the parent, student or even society is happy about the present educational scenario. He noted that our tax payer's money would be wasted if a fruitful return is not gained due to misplaced priorities regarding the goals and purposes envisaged and practised in our educational field. Through his experience while working for the 'Youth for Sewa', he noted that people are willing to contribute to society's well-being. Many young professionals and students volunteered in his work. So this was his first experience as he realised that it was not producing much, but still, people were eager to contribute. He also experienced, especially during India against corruption movement and during Modiji's first electoral campaign, that many people, especially the middle class, came out of their houses to change the system and society. At least it was happening for the first time in his life experience. Before this, he

noted, young people thought of their career, a settled job, preferably abroad, and a settled life.

Further, he noted that in the wake of the campaign against corruption and renewed hope fuelled by Shri Narendra Modi's entry into the national political arena, he saw a significant shift in the young generation's view of their personal, professional, social and national psyche. But, he observed, the challenge is channelling this renewed vision and energy of our younger generations. With this vision in mind, along with some friends from IIT Delhi and IIT Bombay, he started 'Vision India Foundation' to engage youngsters in public policy and governance. They thought it would be a good entry point because people are interested in contributing to policy-making and rejuvenating our governance structures. He and his associates could do it fast and effectively as the departments of social sciences and humanities in these institutions had yet not been plagued by left-liberal tendencies. So, they started many training programmes under the Vision India Foundation.

He was discussing how the courses started in the institution, Shri. Mathur ji highlighted that the university began with many short-term courses. He said that the university typically offers a programme with undergraduate studies, then postgraduate and later plans for the non-degree programme. But the journey at his university is reversed. It was not a university initially, so it started with a certificate programme. It expanded our network across the country and connected with many like-minded people, and people came to know about it.

Shri. Mathur ji noted that it was, perhaps, the first attempt to train young minds in policy and governance. We studied many institutions worldwide and founded the Matsushita Institute of Government and Management. It was perhaps the world's only institution focused on public leadership and governance. It was founded by a businessman, perhaps Panasonic's founder, to create

leaders by Japanese ethos 40 years back. Many corporate functionaries and bureaucrats have studied there. So, it was thought to develop such an institute in India based on IKS to create leaders. He said that they continuously reviewed their views and refined their vision. Mostly higher education is viewed through the prism of education for suitable placement. But it was realised that this would not work, and there is a need to think beyond it. Therefore, Rishihood University puts a premium on the individual's development. The word Rishihood came from Swami Vivekananda's lecture. Swami Vivekananda said that the education and purpose of man should aim at reaching the state of rishihood, individual development, vision development, and system development than Rashtra Nirman. These were generally a theory of change that we thought of. Quality education must focus on individual growth, vision development for quality leadership and research so that the narrative of society and thinking process can be changed positively.

Shri. Mathur ji said that there is a need to create institutions and universities where any idea or thought is not coming from an individual but from the thought process and influences of learning systems of the institutions and universities, and the graduates from such institutions and universities can contribute and meaningfully engage in working out quality NCFs and NEPs in future. Along these lines, the objective of Rishihood University was outlined to focus on system development. So, it started the journey to create good education, sound research, and effective public policy and finally contribute to nation-building. He said that the team at Rishihood continuously explores the objectives of 'what should be the focus of education', 'what is missing among students' and 'what should be the focus of Rishihood'. So, the team thought about three attributes of a student – *Jigyasa* (desire to know), *Chikirsha* (courage to act), and Ananda (joy in being). All these things are missing in India's education system.

Shri. Mathur said that Curiosity (Jigyasa) in classroom situations or nearby circumstances could be instilled among students. On these lines, there was an emphasis on trying a unique pedagogical experiment in Rishihood. Discussing the method of how IKS can be taught in a system, Sh. Mathur ji deliberated that the emphasis was laid on teaching diplomacy then instead of directly asking the students to opt for the four ideas of Kautilya given in Arthshastra. Elaborating further on the concept, he said that in a diplomacy session, we could take Russia and Ukraine issue. There may be debate and discussion within the teaching, and we can think about possible solutions. During debates and discussions, the instructions of Kautilya about Sam, Dam, and Bheda can be discussed. He said that in Rishihood, such an integrated learning approach is being taken instead of directly teaching about Arthashastra in the classroom. So with a specific case, it is explained to the students about the limitation of western thought. Every attempt is made to motivate students into a deeper exploration of the concept so they can know that solution exists in our traditional system. This will enable the creation of Jigyasa among students.

Shri. Mathur ji held his viewpoint that in Rishihood, the institution is also trying to create 'Chikeersha' means the courage to act among students. It has been found that there is a lack of willingness to work among the present generation. So, an attempt is made how-to create Chikirsha among students. There is one year course on the PG Diploma on Public leadership with a 50% component of field-based learning. An attempt is made to apply knowledge in real life, and then the analysis is made, and the students are encouraged to go back to the field to apply this knowledge again. So, there is a combination of both field placement and classroom teaching. So, every effort is made to create unique pedagogy of knowledge and continuous action in the field.

Discussing the third attribute of a student, i.e. Ananda, Shri. Mathur said that if we meet with youngsters, it seems they are not enjoying the learning process. If there is no joy, then what is the meaning of life? Such a situation has consequences, too, i.e. mental depression, suicidal tendencies and other negative tendencies. Compared to the previous generation, they have better facilities but not the joy or Ananda. Therefore, there is a need to create such campus life, which gives them the joy of living. An attempt was made to develop Rishihood, a 100% residential campus where learning will happen day and night, providing space for positive education; therefore, continuous efforts are being made to create a campus culture for joyful learning.

Shri Mathur emphasised that IKS in education is not limited to curriculum and pedagogy. We must think about how we can ultimately institutionalise the university's vision, culture, curriculum design, and pedagogy. So, the attempt was made uniquely at Rishihood, starting from recruiting and motivating such faculty. Usually, motivation in education is for teaching and research purposes. However, Rishihood University endeavours to bring teaching, research and consulting together on the board. Therefore, Rishihood is ceaselessly churning on bringing about individual, vision, and system development through teaching and learning. He also said that the appraisal system in Rishihood is also different. The attempt is made to analyse how research has a social impact, how ideas with government or institutions were implemented, etc.

Shri. Mathur ji also said there is also a need to be a line of thinking about how this institution will be governed. It requires a deep thought process. Suppose we think of bringing back the old gurukul system. Then how can this be implemented in the present situation? Most private institutions are family-run. But this was never the objective. So, we need to consider how we can make society-driven institutions. So, in Rishihood, it is being run

with collective leadership. So, there are multiple founders with collaborative leadership. In Rishihood, there are not only financial leaders, but the institution also has leaders, spiritual leaders and social leaders as its founders and governing structures. These leaders form the founding board. So, it is board driven university instead of a family-driven university. So, this is an attempt to create a unique institution. He mentioned that they are still trying to improve it. Further, an attempt is being made to how curriculum can be designed and offered to students. Along these lines, the institution is continuously experimenting and improving.

Shri. Mathur also highlighted that NEP 2020 was beneficial as it paved the way for many reforms in our educational sector. He said that Rishihood would be the first to implement UGC's revised guidelines from next year. As UGC suggested first common semester, Rishihood will not offer any course-specific admission, but we will provide access to a university. So, the student will first learn a standard IKS-based foundation course and then select a major so they can choose a major as per their understanding during the foundation course and life on campus. If this experiment is successful, the students so enabled would go outside and contribute directly or indirectly to the nation-building process. But this work cannot be done alone. We must work together. He said that Rishihood is not claiming that it can give all solutions, but the attempt is being made to showcase a model by which more institutions can contribute.



#### **CONCLUDING REMARKS**

### By Prof. Nishamani Kar

Indian Knowledge System (IKS) is the interdisciplinary domain (on Indian life and letters) that aims at preserving and disseminating knowledge for further societal applications. Indian civilisation, from the days of yore, has accorded immense importance to knowledge — its corroborating texts, thinkers, and schools in diverse domains notwithstanding. In *Srimad Bhagavad Gita*, 4.33,37-38, Lord Krishna tells Arjuna that knowledge is the great purifier and liberator of the self. Eventually, India's knowledge tradition is ancient and uninterrupted, like the perennial Ganga. Thus, knowledge has been at the centre of all inquiry in India, from the *Vedas (Upanishads)* to Tagore's *Gitanjali* and Sri Aurobindo's *Savitri: A Legend and a Symbol*.

The entire body of organised knowledge in India is divided into two sets in the *Mundakopanisad* — *tasmai sa hovāca/dve vidye veditavye iti ha sma/yadbrahmavido vadanti parā caivāparā ca* .1.1. 4. (To him, he said: Two kinds of knowledge must be knownthat is what the knowers of *Brahman* tell us. They are the Higher Knowledge and the lower knowledge); *para vidya* - knowledge of the ultimate principle, *Paramatma* or *Brahman*, the metaphysical domain, and *apara vidya* - knowledge that is secondary to how one grasps *Akshara-Brahman*, i.e., worldly knowledge. Accordingly, a

distinction is made between *jnana* and *vijnana*, the knowledge of facts of the perceptible world. Over time, knowledge of different domains has been institutionalised into disciplines, or *vidya* and *kala* (craft): 18 major *vidyas*, theoretical fields, and 64 *kalas*, applied or vocational disciplines, and crafts.

The 18 vidyas are the four Vedas; the four subsidiary Vedas (Ayurveda - medicine, Dhanurveda - weaponry, Gandharvaveda music and dance, and Sthapatyasilpaveda – architecture); Purana, Nyaya, Mimamsa, Dharmasastra and Vedanga; the six auxiliary sciences - phonetics, grammar, metre, astronomy, ritual, and philology: all these formed the basis of the 18 sciences in ancient India. As far as the applied sciences are concerned, there are 64 competing enumerations. Few cultures can show such wide-ranging, structured systems of ideas in almost all spheres of human life, as witnessed in India over the years. This has led to the generation of a vast stock of ideas, which has imprinted itself on the Indian mind making it naturally reflective and ideational. Nevertheless, it has had a tangible, worldly, and pragmatic aspect. A case in point is Kautilya, an exception in the ancient and modern world as the sole strategist who could translate his tenets into practice, leading to the creation of a vast empire. The Arthaśāstra covers every topic required for running a country, most of which remain relevant even today.

Incidentally, as a matter of further elucidation, we are to admit that Indian disciplinary formations include fields as diverse as philosophy, architecture, grammar, mathematics, astronomy, metrics, sociology (*dharmasastra*), economy and polity (*arthaśāstra*), ethics (*nitishastra*), geography, logic, military science, weaponry, agriculture, mining, trade and commerce, metallurgy, mining, shipbuilding, medicine, poetics, biology, and veterinary science. In each of these, a continuous and cumulative series of texts continues to be available despite the widespread loss because of historically recorded designs leading to widespread destruction.

To our utter dismay, IKS has not received the importance it deserves. China's contributions to the global knowledge pool are often acknowledged in intellectual circles. Arab scholars have ensured that the Islamic countries' essential role in transmitting ideas and inventions to Europe is widely recognised. However, in the latter case, many discoveries made in ancient India are often depicted as Arab origin, though most Arabs only bequeathed what they had learned from India. Even post-Independence, such distortion of facts continues to prevail, negatively impacting the appreciation of ancient Indian wisdom. To a large extent, the global elite views precolonial India as feudalistic, superstitious, irrational, and lacking scientific temper.

Further, the colonial masters not only approximated and thought the same way but also forced upon us their approaches to life and letters in the name of a 'civilising mission', leading to an entrenched prejudice against our indigenous knowledge systems in contemporary society. A significant reason for this prevalent notion is India's flawed and skillfully manoeuvred education system, smartly enforced by the Macaulay Minute, which has resulted in subverting the projection of ancient Indian knowledge and scientific achievements in its curricula. Thus, even when facts are presented, few in the west or even amongst the elitist Indians are willing to believe them, as stereotypes about India are deeply entrenched in their psyche. Therefore, in the fitness of things, the prevailing curricula/syllabi must be reoriented and restructured to accommodate the Indian Knowledge System as a matter of course correction duly enunciated by NEP 2020.

## LIST OF PARTICIPANTS

This is the list of delegates who came from different institutions from all over India to participate in the two-days National Workshop on "Assimilating Indian Knowledge System in Mainstream Education: Mandate of NEP 2020" in collaboration with National Institute of Open Schooling, Noida on 5-6 May, 2022.

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