Position Paper on Knowledge of India

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1. Introduction

What is India? Is it a piece of land demarcated by Radcliffe line on one side and McMohan line on the other? Or is it a nation state constituted into a sovereign democratic republic in the year 1950 with the socialist and secular attributes added on it in the 42nd amendment during the emergency rule? While these realities are on one side, the *Viṣṇu Purāṇa* (2.3.1) defines *Bhārata* as the land north of the oceans and south of the Himalayas,

उत्तरं यत्समद्रुस्य हिमाद्रेश्चैव दहिणम्।
वर्षंतद्भारतंनाम भारती यत्र सन्तहतिः ॥

with the same definition resonating in the *Sangam* literature, where in the *Puraṇānūru* song 6 reads thus:

Vaḍā adu panipaḍu neḍuvarai vaḍakkum tenā adu kezhu kumariyin rerkkum Guṇā adu karaiporu toḍukaḍar kuṇakkum kuḍā adu tonrumudir pelavattinkuḍakkum

The idea of *Bhārata* that truly resonates in the hearts of her children is the one uttered by Śrī Rāmachandra "जननी जन्मभहूमश्च स्वःादहि रीयसी" and reaffirmed by Bankim Chandra Chatterjee as "वन्देमातरम्… त्वं हि दःुादशप्रिरणधाररणी…", that is the idea of *Bhārata*-mātā. The feeling of *Bhārata* that rings in the minds of her patriots is the one expressed by Swami Vivekananda; when asked by an English friend,

> ***"Swami, how do you like now your motherland after four years' experience of the luxurious, glorious, powerful West?", Swamiji replied "India I loved before I came away. Now the very dust of India has become holy to me, the very air is now to me holy; it is now the holy land, the place of pilgrimage, the Tirtha."***

History reveals to us that the so-called developed world developed through conquest, colonialism and bloody wars for the past four hundred odd years, whereas *Bhārata* consistently had a share of about 30% of world GDP continuously for 17 centuries (Ref: Maddison, A. (2006), The World Economy: Volume 1: A Millennial Perspective and Volume 2: Historical Statistics, Development Centre Studies, OECD Publishing, Paris, https://doi.org/10.1787/9789264022621-en). This feat was achieved despite a large population, and in the pre-industrial era. (One should not forget that the Europeans accidentally discovered America, while they were actually searching for a sea-route to India.). There is no better time than now to research and fathom how India was able to achieve stellar prosperity and being the knowledge lighthouse for the world until the recent past.

Even if we leave aside the literature written since antiquity by Indians, we get glorious

accounts of *Bhārata* in copious measure from various foreigners who travelled to this country at various instances in history. Be it the Indica of Megasthenes or the travelogues of Fa Hien (also spelt as Faxien) we are time and again informed how great our motherland was in various
strides. It is difficult to say which field of knowledge *Bhārata* did not contribute to. The whole world looked towards *Bhārata* for education. It was thus said,

> ***"From Persia to the Chinese Sea, from the icy regions of Siberia to the islands of Java and Borneo, from Oceania to Socotra Bhārata has propagated her beliefs, her tales and her civilisation. She has left indelible imprints on one fourth of the human race in the course of a long succession of centuries. She has the right to reclaim in universal history the rank that ignorance has refused her for a long time and to hold her place amongst the great nations summarising and symbolising the spirit of humanity"***

by Sylvain Levi, a renowned Indologist of yesteryears about *Bhārata* that is India (Ref: Preface of the book "*5*" by U.N. Ghoshal, 1943). *Bhārata* has been contributing in several spheres of knowledge at the global level and it continues to do so in contemporary times as well. Over a period of time there has been substantial change in the world view of *Bhārata* by Bhāratīyās themselves as well as by outsiders. In this era of social media and ever decreasing attention span of our youngsters, it is imperative that we take stock of the narratives with due diligence and strive our best to create maximum awareness of the contributions made by the sons and daughters of this soil. It is indeed very pertinent to reiterate the words of the former president of our nation, Dr. S. Radhakrishnan. He notes the following in "The Report of the University Education Commission (December 1948 – August 1949)":

> ***"A habitual vision of greatness is the way to cultural growth. Those who have no greatness in themselves-they are the vast majority-should live in the company of the great. Culture is an attitude of mind, an inclination of the spirit and those who yearn for it wish to have a vision of greatness, sit in the presence of nobility, see the highest reach and scope of the spirit of man….***
> ***……If we are to work for a society of human beings, as high as human nature allows, we must start with a vision of great and good men. That should be the centre of all education….."***

Either by design or by default somewhere down the line prior to our political independence in 1947, we seem to have gone astray from the vision of Dr. Radhakrishnan for we are now a witness to wide-spread cultural illiteracy and insensitivity. One of the main reasons for us to witness such a scenario is due to the policies in the educational system at both the State and the Central level which in the garb of secularization have systematically ushered our impressionable minds into the zone of rootlessness and ignorance of the achievements by their very own ancestors.

We are in a precarious situation today that our young students are not even aware of

what our ancestors have achieved over different millennia in various fields of knowledge, especially with today's technological advancement which enables us to examine available data with much less effort than was required previously. The invaders and colonizers had an agenda with which they continued their association with *Bhārata* but even after getting our political independence, it looks like we are intellectually yet to get liberated for we are unknowingly trapped in a narrative of this digital colony. Our own intellectuals who were supposed to lead the country and make attempts to restore the glory with which *Bhārata* had once shown way to the world, apparently have failed us for they have propagated a partisan and biased narrative which has resulted in the deprivation of information about our own traditional knowledge which is an inherent part of 'Knowledge of India.'

According to the World Intellectual Property Organization, Traditional knowledge is know-how, skills and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity. Traditional knowledge about herbal formulations is perhaps one such specialized form within the broad canopy of 'Knowledge of India' and this has extremely wide ranging ramifications as there are international stakeholders attracted to it through intellectual property rights and commercial ventures derived thereof. According to Suneetha Sridharan (Ref: *Journal of Intellectual Property Rights*, 2010, Vol 15, pp 146-150),

> ***"Essentially, traditional knowledge is information based on common sense and experience passed on from generation to generation which is the result of intimate knowledge of the environment and its impact on the people, flora and fauna as well as their successful existence in a symbiotic relationship. It is the knowledge that helps the community (rather than an individual) to survive in a sustainable manner in a given environment."***

But, according to the same author quoted above, traditional knowledge systems have been largely relegated to the realm of myth and folklore and hence our educational system does not impart such knowledge to our children which ought to have happened in the first place. The lack of such knowledge does not only corrode our cultural roots; it has deleterious economic impacts. According to Dr. V.K. Gupta, the author and architect of *Bhārata*'s one and only much acclaimed Traditional Knowledge Digital Library, by around the year 2001 (Ref: WIPO Magazine June 2011 authored by Dr. V. K. Gupta; https://www.wipo.int/wipo_magazine/en/2011/03/article_0002.html),

> ***"The TKDL expert group estimated that, annually, some 2,000 patents relating to Indian medicinal systems were being erroneously granted by patent offices around the world."***

Imagine the colossal economic loss by ignoring just one of the sub-domains within the broad canopy of 'Knowledge of India'. If only our children are made aware of the treasures, will they be in a position to not just appreciate it, rather derive subsistence from it (from a

utilitarian point of view) and harbour true pride for the country's knowledge heritage.

Rays of hope are imminent in this new educational policy through which we can aim at augmenting and contributing towards enhancing cultural literacy and sensitivity amongst our impressionable minds which was earlier happening in an unorganized manner through informal
settings. Scholastic framework not giving adequate and requisite importance to 3-4 generations of *Bhāratīyās* to the world of 'Knowledge of India' is one such lapse in the past which ought to be set right during this grand opportunity.

a. What is the relevance of the area under discussion to school education?

According to the Regional Center for Expertise (RCE) on Education for Sustainable Development (Ref: *Innovation in Local and Global Learning Systems for Sustainability: Traditional Knowledge and Biodiversity* – Learning Contributions of the Regional Centres of Expertise on Education for Sustainable Development UNU-IAS, Yokohama, Japan, 2013), it is very important to engage right from elementary school children in imparting awareness and sensitizing them about traditional knowledge and practises which will have far reaching effects. Given this larger perspective, and also the focus of NEP 2020 on Indian Knowledge Systems, it is highly relevant to discuss them in the school education system.

An Individual's first identity is his/her own country to which he/she belongs. Individual is an ambassador for the country. So, it becomes important for an individual to have knowledge about his nation and its knowledge. This is where 'Knowledge of India' will contribute.

As mentioned earlier, other countries are trying to claim patents on the knowledge of herbs etc. to which *Bhārata* has been contributing for several thousands of years. Claiming the patent means strengthening the economy. If 'Knowledge of India' is transferred to the tender in a proper age, it is for sure that they will take it ahead and protect our traditional wisdom and protect the patent. This will lead to the economic development of the state and the country. Furthermore, it is indeed very surprising to note that of the 44.07 lakh manuscripts documented by the National Mission for Manuscripts only 3.3 lakhs of them have been digitized (Ref: https://www.namami.gov.in/performance-summary). This opens up new vistas of exploring traditional knowledge and creation of newer knowledge.

b. Is there any major transition indicated in the NEP 2020?

NEP 2020 advocates very strongly the inculcation of Indian traditional knowledge within our scholastic framework. In as many as 19 paragraphs the policy document explicitly highlights the importance of Indian knowledge systems. For instance, the para 22.2 in the NEP 2020 document reads:

"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."

Hence we see absolutely no transition rather we see this theme very much in alignment with the NEP 2020.

2. Context

a. Status in state – current approach, current status with relevant data could be summarised.

Ever since 2005, the bygone NCF, the textbooks have undergone substantial changes and effort is vivid. Prior to that, in the late 90s, when there was absolutely no mention of ancient India's contribution in science and technology, we find that revisions post 2005 recognized a few contributions by ancient Indian scientists in fact-boxes. Notwithstanding this revision which in itself represents a marked change in the outlook by the authors, there is a long way to go for realizing the tenets of NEP 2020 particularly with respect to the contents related to 'Knowledge of India'. We are gradually evolving in the right direction as we have come a long way from completely omitting to at least taking cognizance of a few.

The existing textbooks of all subjects from all classes of the Karnataka State were examined by the committee. Furthermore, the DIETs and PUBs were requested to give their specific inputs on the textbooks based on the following format:

A) Kindly provide us the solicited information in the following format:

Class	Subject	Chapter number/name	Page number	Concept/Information

B) What additions and/or deletions you suggest to the above table? Kindly accompany your suggestions with accurate reference materials.

There has been an overwhelming response from the DIETs and the PUBs and the committee expresses utmost appreciation and gratitude for the same (All responses are collated in Annexure).

After perusing the responses from the DIETs, PUBs as well as carrying out first hand review of the textbooks particularly from the 'Knowledge of India' perspective, it is observed that:

1) There are mentions of Indian mathematicians and astronomer's names in the textbook like *Āryabhaṭa, Bhāskara* but these are relegated into fact-boxes without giving deeper knowledge

about their contributions. For instance, every Kannada student learns about Kannada padas or poems. These poems involve metrical pattern having prosodically short and long time taken for pronunciation and it is in working out the various permutations/combinations of these that the much acclaimed Fibonacci series arises. Making such connections would not only impart to our students the 'Knowledge of India' but also instill in them an inter-disciplinary and cross-disciplinary approach to knowledge acquisition. This will help in their creative endeavour in both their personal and professional life.

2) Even though *Āryabhaṭa* is mentioned in a limited sense, his contribution to math and astronomy and his methods of calculations do not find their place. Similarly, the *kuṭṭaka* algorithm does not find any mention.

3) No attempt has been made to introduce to our students the Indian numeral system that existed in the past and continues to exist even in contemporary times, albeit in a few niche areas. Introducing systems like *Bhūta-saṅkhyā* and *kaṭapayādi-saṅkhyā paddhati* will not only inform our students about our past but will also make them apply these systems in more creative avenues.

4) By and large, the science that we teach or learn today in our country as well as in the States is primarily of European origin. There is absolutely nothing wrong to learn something that originated in a foreign land for we believe in the dictum

"*Ā no bhadrāḥ kratavo yantu viśvataḥ*" meaning "let noble thoughts come to us from all directions."

But somewhere down the line pursuing the western science, we have now come to a situation where the youth of our country have no clue about the scientific achievement of our ancestors. There have been attempts in the past and a few ongoing to actively look for "scientific interpretation" for our rituals and other day to day activities. Notwithstanding the good intention behind such attempts, this subtly reveals the colonized mind-set for subliminally the "western science" is kept on a higher pedestal and we only try to "elevate" ourselves to these scientific truths. This is a double whammy as far as our cultural ethos are concerned for it not only undermines our heritage but also inherently submits to the ill-perceived superiority of the western science.

When scientists like Schrödinger, Heisenberg and a number of others hold the intellectual culture of *Bhārata* in high esteem, we have a section of our peers and so-called intellectuals who have projected an altogether different narrative. This narrative has resulted in eliciting a sense of bemoan in our youngsters as they feel it highly regressive to dwell on our country's intellectual past. Complete delinking of our youngsters from our intellectual and cultural moorings of the past is a dangerous locus and will have sinister outcomes in near future.

5) Somehow the textbooks convey to our students that Indians in the past had some contribution of worth in fields like linguistics and math, but were completely ignorant about science. For instance, when the classification of matter is introduced, there is absolutely no mention of the Indian philosophical systems, especially the *Vaiśeṣika*, which had its own indigenous way of classification, but our students are not at all informed about the same.

6) In social science, there are some vital historical facts pertaining to the 'Knowledge of India' that are completely dropped from the textbooks. For instance, queen *Rudramadevi* is not mentioned at all. Even though she belonged to the *Kākatiya* dynasty and did not come

from Karnataka, the fact that when she reigned, she was then the lone woman to command from the throne for the longest time in the entire world is not mentioned at all in our textbooks. Similarly, whereas *Rāṇi Abbakka Chautā* (who defeated the Portuguese), *Keḷadi Chennamma* (who sheltered *Śivajī*'s son) find a very brief mention, *Ahilya Bai Holkar* is not introduced to our children. Even in the case of *Rāṇi Abbakka* the language used in the textbook while introducing her is highly inappropriate. Far from kindling any kind of pride in our students about her valour and character, the language leaves the student in a dilemma as the sentences are constructed in a manner that conveys doubt. Whereas the fact that she did not succumb to the tax tyranny is

rightly highlighted, commensurate credit is not given to her which is rightly due when it comes to her valour on the battlefield (Ref; http://ignca.gov.in/PDF_data/Abbakka_Rani.pdf); she has not been credited in the textbook and rather it is portrayed as though it was only due to her soldiers that she was able to fight.

Other prominent female warriors who are celebrated in the state of Karnataka for their relentless fight against the Muslim rulers are *Onake Obavva* and queen *Chennabairadevi* who, unfortunately, do not find any place in the state textbooks. *Chennabairadevi* went on to earn a nickname of the 'Reyna de Pimenta' meaning 'the Pepper Queen' from the Portuguese, her arch enemies, owing to her control over a vast region where pepper was grown and hence attacked frequently by the Portuguese for their vested commercial interests (Ref: *The Travels of Pietro Della Valle in India*, Translated to English by Edward Grey; Vol II, Page number 221). All these women played crucial and significant roles in our history but ironically they are not introduced in their full glory to our own children.

7) The tone and tenor with which we introduce historical information to our young children will go a long way in informing them about our country's past and thereby will either help in making or breaking a national grand narrative. One case in point is the perspective with which *Belawadi Mallamma* is introduced in the textbooks. Even though the projected facts are historically accurate, nevertheless, it has the risk of creating unwarranted fault lines as the portrayal of the Marathas is far from satisfactory. Domestic skirmishes cannot and should not be white washed in the textbooks for we *Bhāratīyās* carry the unique legacy of not redacting or censoring any portions of our past if they are seen going perpendicular to the prevailing norms. But at the same time we need to keep in mind what kind of interpretation the textbook is imparting and what possible interpretations students might make at such an impressionable age.
8) The 5th sustainable development goal of the UN is gender equality which targets to end all forms of discrimination against all women and girls everywhere. The very initial step towards achieving this target is to recognise their contribution in the past towards national development thereby removing the discrimination they face in the historical narrative.
9) Several prominent historical figures like *Śivājī*, Ahom kings from Assam, *Mārtāṇḍa Varmā* from (*Tiruvānkūr*) Kerala, Tamil Kings like *Karikāla Cholan* who built the stone dam in Tiruchirappalli that is functional even to this day are not mentioned at all. Even though this historical information is not directly pertaining to the state of Karnataka, they are essential for the students of all states to know as it concerns the pride of our national past.
10) From ancient period to modern period it has been noticed that the socio-cultural thread is

missing and the narrations are highlighting the invaders and Europeans. The Indian resistance to invaders and achievements of Indians during the course of Indian history is not given any importance which is verily a part of the 'Knowledge of India'. History is being introduced from the perspective of the invaders and the colonizers.

11) The history of the period 1860 to 1910 is not discussed at all in any form in the textbooks. 12) It has been noticed that *Bhārata*'s culture and its civilization's main accomplishments are not highlighted. *Bhāratīya Dharma Paramparā* is neither introduced in a holistic manner nor projected with the right perspective whereas Christianity and Islam are presented in individual chapters.

13) It is very astonishing to note that even in Kannada language there are some golden misses. Works of several prominent litterateurs from Karnataka, the works for which they were awarded, about the awardees do not feature in a commensurate manner in the textbooks. Stalwarts like DV Gundappa, D. R. Bendre and others make a presence in a miniscule manner through just 1 poem in the whole range of classes from 6 to 10. All these stalwarts' works do constitute 'Knowledge of India' which is surprisingly missing from the textbooks.

14) Multitasking is one of the buzzwords in the contemporary times and one of the treasures of our country, particularly of the states of Andhra Pradesh and Karnataka is the art of *Avadhāna* which comes in multiple forms like *Aśṭāvadhāna, Śatāvadhāna, Sahasrāvadhāna* etc. This is a rich tradition from the ancient times which continues to be practiced by several scholars and savants of this much celebrated cerebral art. Unfortunately, the state textbooks do not introduce them to our students in the glorious way that this art and the artists truly warrant. *Avadhāna* is an indispensable part of Karnataka's heritage and thereby one of the cornerstones in the domain of 'Knowledge of India' which ought to find its due place in the school textbooks.

15) Compared to other subjects, the Kannada subject as introduced in the textbooks for classes 6 to 10 fares better in doing some justice in introducing the 'Knowledge of India' topics pertaining to language, albeit a few miss mentioned above, is indeed appreciated.

b. Any relevant history, any initiatives, etc taken in the state?

To the best knowledge of this committee, this is the first time when the position paper exclusively on the theme of 'Knowledge of India' is taken up. Hence there is no direct history in terms of position paper. But there have been continuous efforts to revise the textbooks and make them as much error free as possible while making them up to date. In that direction, the committee formed under the chairmanship of Prof. Baragur Ramachadrappa is the most recent one. As per the report of this committee shared to us, there appears to be significant changes in the social science textbooks with very little changes in the math and science portions.

Notwithstanding the claims mentioned in the report, particularly where it is stated that the textbook was revised so as to instill the sense of nationalism in our students right from their very young age, the reality appears to be different. For instance, *Ācārya Vidyāraṇya's* name is mentioned in the textbook (class 6-9 social science) but nowhere does his role in transforming *Harihara* and *Bukka* find mention. Given that the *Vijayanagara* kingdom is the pride of Karnataka, accurate narration of its foundational history is not told to our students. One

wonders how such selective redactions would instill real nationalism in our students.

Even though the revision has happened in the recent past, no effort is seen in the direction to introduce Indian knowledge in science and mathematics besides merely apportioning a few of them as fact-boxes. As mentioned earlier, no attempt has been made to highlight the scientific temper of our ancient and medieval Indians.

3. Concerns, challenges

a. Are there any specific concerns or challenges related to the focus area in the state?

Talking of challenges that face us while particularly dealing with the theme of 'Knowledge of India', once again the words of Dr. S. Radhakrishnan come to our mind who said,

> ***"These victims of the present age of disillusion and defeat tell us that the love of Indian thought is a nationalist foible, if not a pose of the highbrows. It is a bewildering phenomenon that, just when India is ceasing to appear grotesque to Western eyes, she is beginning to appear so to the eyes of some of her own sons. The West tried its best to persuade India that its philosophy is absurd, its art puerile, its poetry uninspired, its religion grotesque and its ethics barbarous. Now that the West is feeling that its judgment is not quite correct, some of us are insisting that it was wholly right. While it is true that it is difficult in an age of reflection to push men back into an earlier stage of culture and save them from the dangers of doubt and the disturbing power of dialectic, we should not forget that we can build better on foundations already laid than by attempting to substitute a completely new structure of morality, of life and of ethics. We cannot cut ourselves off from the springs of our life. Philosophical schemes, unlike geometrical constructions, are the products of life. The heritage of our history is the food that we have to absorb on pain of inanition"***

The above quoted excerpt is from 'Indian Philosophy' which, interestingly, appeared a century ago. It is indeed highly relevant now as it was back then when it was written. The bipartisanship that we face today amidst the 'woke culture' is much more tumultuous now compared to Radhakrishnan's times. For we have a group with critical power who obliterate all acts of evils perpetrated by the invaders and colonizers of *Bhārata* on one hand, and on the other we have a naïve group who think everything was hunky dory in the past and that all cases from the past are straightforward like an open-shut case.

For instance, whereas in several European countries the holocaust denial has been declared a statutory crime (Ref: https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/698043/EPRS_BRI(2021)698043_EN.pdf) in our country it is almost impossible to have a dispassionate narration about Hindu genocides that have happened in various centuries. Passions get stoked from both sides and result in only emanating scalding heat than any illuminating light.

This is the reason why topics in the 'Knowledge of India' theme, their depth of coverage and the orientation with which they are covered, if any, currently in the textbooks

become major concerns. Because merely stating unsubstantiated rhetoric and at the same time relegating some of the vital facets of the 'Knowledge of India' content to an obscure 'fact-box' are both equally detrimental leading to an intellectually stunted populace. Instilling real pride in our country's contribution is very different from sloganeering or propaganda or at best tokenism which are some major concerns and challenges when it comes to imparting 'Knowledge of India' related topics.

We face yet another mammoth challenge in introducing 'Knowledge of India' to our children through the textbooks. As an analogy, permit a brief digression. An Indian Industrial Commission was formed under the presidency of T.H.E Holland in 1916 and Pandit Madan Mohan Malviya was one of its members. The committee tabled its report in 1918 along with an independent note of rebuttal penned by Malviya ji. Whereas the committee's primary demand was the establishment of a department of Industries at both the provincial and imperial level, in the modus operandi the scientific and industrial heritage of the civilizational nation suffered collateral damage. The report left no stone unturned while belittling colonial *Bhārata*. Malviya ji, showed the white elephant in the room to the committee as well as the higher authorities by way of penning a strong note which served as a fact check for the observations in the report regarding the poor state of the Indian industries. Malviya ji's rebuttal in a nutshell was that if the committee found the Indian Industries in poor condition, it was the direct consequence of the British policies and hence if anyone has to be blamed it is the colonial masters.

Having vociferously admitted the grave lapses in the existing textbook particularly from the 'Knowledge of India' point of view, it is an obvious outcome that good teachers qualified in the Indian knowledge system and that too with neutral outlook sans any propaganda in the substratum would not have been produced from such a scholastic system and textbooks. Much like how Malviya ji found it illogical the Industrial Commission members lamenting on the dismal state of the then Indian industries having not provided the necessary and sufficient eco-system for them to survive on the first place, expecting ready-to-teach teachers on topics like Indian Knowledge System is equally illogical. Abject paucity of trained personnel for teaching 'Knowledge of India' is hence a formidable challenge.

Whenever there is a religious aspect involved in a concept it may create controversy. For instance - When we discuss the history of our *śāstrās* like *Āyurveda*, *Arthaśāstra* etc., it begins with *Brahma*, *Śiva, Bṛhaspati* and *Indra*. Though they are considered as scholars, they are also Devas in our tradition. This is a challenge to introduce such topics which are vital from the 'Knowledge of India' perspective. On a similar vein, with abject ignorance of the *Saṁskṛta* language amongst the general populace, introduction of Indian knowledge without resorting to and citing *Saṁskṛta* sources and scholarly works is another major challenge.

b. What are the limitations within which the state will have to work?

While reviewing the Kannada novel Avarana by Dr. S. L. Byrappa, the reviewer writes thus

(Ref: https://frontline.thehindu.com/other/article30192910.ece):

> ***"IDEAS and ideologies, especially those that are rooted in false consciousness and amount to little more than a concoction of grains of half truths and mountains of lies, need to reinvent themselves periodically if they are to retain their appeal."***

Many such ideas are inevitably intertwined with the 'Knowledge of India.' Hence presenting the details of 'Knowledge of India' eschewing such ideas is truly a challenge and this poses a serious limitation within which the state has to work. For instance, while highlighting the major achievements in architecture, the *Devālayas* (temples) at Hampi serve as the hallmark for stupendous craftsmanship coupled with sublime aesthetics and planning. However, their contemporary state of existence is such that they are referred to as 'ruins.' What led the erstwhile paragons of splendid architecture to dilapidated shackles is a matter of history and delving into its details has always aroused passions from multiple sides. Historical truth suffers the collateral damage and gets marooned in such long winding debates and discussion. Coming out of such traps and presenting the 'Knowledge of India' is, as said before, a grand challenge. Dr. S. L. Bhyrappa, an iconic scholar and novelist from Karnataka offers a solution to mitigate such limitations. In his words,

> ***"We cannot truly comprehend our own selves or the history of our nation or, indeed, the history of the entire world, unless we unshackle ourselves from the bonds of false knowledge, desire and action, and elevate the intellect to a state of detached observation."***

Other than the aforementioned limitation, there exists none else for introducing the topics from 'Knowledge of India'.

4. Way forward:

The history of any field must be revisited at least every fifty years since new knowledge and better access to information might offer newer and better insights into the past and thereby provide a grander vision for the future. Most of the time, history becomes limited to political history, of kings and battles, dates and events etc., while economic history, history of the origin and propagation of ideas are often relegated to oblivion. Every nation/civilization goes through phases of prosperity and penury, superiority complex and inferiority complex. For the past 300-odd years Western Europe; thanks to colonization, "age of enlightenment" and industrial revolution, has become dominant in the spheres of military, economic and intellectual prowess.

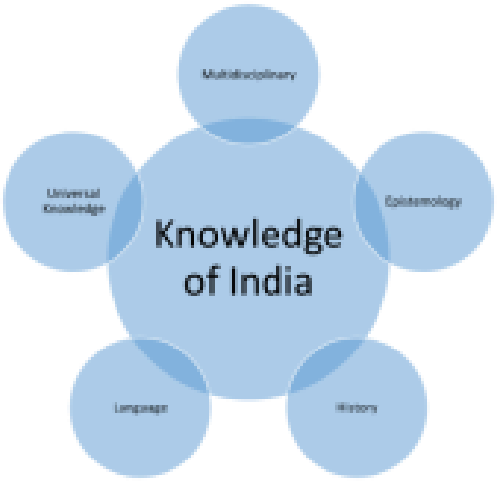
Although this is waning slowly, the dominant narrative subconsciously drilled into the minds of the colonized is that all 'useful' knowledge comes from the West; and in the rare case that it comes from elsewhere, that has also got to be endorsed by the West. Although more research is needed in order to confirm, slowly the facts are coming to light that a majority of claims of 'Greek' science is based on scanty, and many times, fudged evidence

(Ref: C. K. Raju's critique of Greek Mathematics and R. R. Newton's book titled "The Crimes of Claudius Ptolemy"). It might well be the case that this was the result of the then Europeans' inferiority complex as they were struggling to come out of the famous "Dark ages".

While there is hardly any evidence for an apple actually falling on Newton's head or Archimedes realizing buoyancy when in the bathtub, such stories are famous and widely told and retold. On the other hand, India which has withstood nearly two millennia of invasions of various kinds has thousands of real stories still waiting to be told.

Way forward, it is envisaged that the approach to widening the horizons of our student's knowledge will assume a multi-pronged approach where ideas from apparently diverse domains will be introduced not just in the form of ready information to be consumed by the impressionable minds but to make them participate equally in the process of knowledge creation. Even for a topic like 'Knowledge of India', mere cataloging of past achievements and showcasing them in the textbook is not a sustainable goal for such a process would merely be a step in creating a bookish replica of a museum where the fossilized past is for mere display.

Towards this end, the way forward is to introduce 'Knowledge of India' with the following dimensions as shown in the figure below:



- **Multidisciplinary**: With the ever-increasing body of knowledge, it is becoming increasingly difficult for a person involved in one discipline to gain knowledge and be updated about another discipline. The problem is exacerbated with the common perception that education is just a means to secure a job for livelihood. This has led to the end result being that humanities people struggle to employ a set of logical steps to arrive at a conclusion based on the given evidence on the one hand, while on the other hand STEM (Science, Technology, Engineering and Mathematics) graduates are not at all exposed to art appreciation in sculpture, music, dance and painting. As the saying goes in Indian parlance, "एकं शास्त्रम् अधीयानो न गच्छेत्शास्त्रननर्यण म"् (a person studying just one discipline may not acquire mastery over it). As the NEP-2020 document has rightly identified the need for

multi-disciplinary education, the same needs to be implemented at all stages. Particularly for 'Knowledge of India' this is very important because a strict line of demarcation cannot be drawn between different disciplines. For instance, while studying the Bidri metal works from the northern parts of Karnataka, a student needs to be aware of not only metallurgy and chemistry but also a little bit about history and archaeology as well. Knowledge about the trade, commerce, language and epigraphy will be an added advantage to get a complete picture of the Bidri metal wares.

Another very pertinent example is that of poetic meters. Poetry as such is a lucid medium that our students encounter right from their start of the school years. *Bhāratīya* poetry combines not only the lyrical magic but also fundamentals of combinatorics. It is indeed a matter of fact that most of the knowledge treasures are encapsulated in a poetic form getting disseminated from one generation to the next ably safeguarded by the tenets of metrical nuances. Unless one has a multidisciplinary understanding of things, experiencing both the beauty of poetry (*Saṁskṛta* or Kannada) and appreciating the manifestation of the binary number system would not at all be possible.

● **Language**: *Bhārata* is home to thousands of languages and thereby we are also losing our languages very fast as the disastrous effects of perceived standardization of a single language. In the land of thousands of languages, at least three languages must be taught – the regional language, English and another *Bhāratīya* language, preferably *Saṁskṛta*. *Saṁskṛta* is the language in which the overwhelming majority of Indian knowledge is available, and in addition, a basic knowledge of *Saṁskṛta* will equip the students to pick up any other language, including foreign languages. Interestingly, Oswald Ducrot and Tzvetan Todorov had the following to say about the great grammatical treatise of *Saṁskṛta* authored by Panini in their Encyclopedic Dictionary of the Sciences of Language:

> ***"The first text on linguistics available to us is the Saṁskṛta grammar of Panini. As irony would have it, this book, perhaps the first scientific work in western history, remains without equal in its field even today."***

Hence making this scientific knowledge accessible to all and sundry will go a long way in imparting 'Knowledge of India' to our populace. None other than Pt. Jawaharlal Nehru while laying down guidelines for Independent *Bhārata*, said (Ref: "An Anthology on Aspects of Indian Culture by Dr. V. Raghavan; Published by Dr. V. Raghavan Centre for Performing Arts Chennai, 2002, pp 503),

> ***"I would personally like as many Indians as possible to know Saṁskṛta, which is the very basis of our culture. I see no difficulty about all this. The more languages one knows, the more one knows one's own language. Where is the element of force about this? If we ask a child to learn arithmetic or geometry, is it force?..If asked what is the greatest treasure which India possesses and what is her finest heritage, I would answer unhesitatingly-it is the Saṁskṛta language and literature and all that it contains. This is a magnificent inheritance, and so long as this endures and influences the life of the people, so long the basic genius of India will continue"***

Study of a fourth language, preferably another *Bhāratīya* language (students in North India can learn a South Indian language and those in South India can learn a North Indian language), wherever feasible or as an elective is recommended.

• **Epistemology**: A solid foundation of how new knowledge is created and how knowledge evolves over time needs to be presented. Most often, in schools, knowledge is presented as some information which is meant only for consumption. Going forward, more emphasis should be placed on 'History of Ideas' and accurately present how ideas (both good and bad) were generated, how they were verified and came to be recognized as valid knowledge. These are of paramount importance in shaping up the cognitive trajectory of a curious mind and they have far reaching consequences in enhanced learning in other disciplines as well. In the words of the French philosopher, Michel Foucault, in his work titled, "The Archaeology of Knowledge and The Discourse on Language" defines the history of ideas as,

> ***"the discipline of beginnings and ends, the description of obscure continuities and returns, the reconstitution of developments in the linear form of history. But it can also, by that very fact, describe, from one domain to another, the***
> ***whole interplay of exchanges and intermediaries: it shows how scientific knowledge is diffused, gives rise to philosophical concepts, and takes form perhaps in literary works; it shows how problems, notions, themes may emigrate from the philosophical field where they were formulated to scientific or political discourses; it relates work with institutions, social customs or behaviour, techniques, and unrecorded needs and practices; it tries to revive the most elaborate forms of discourse in the concrete landscape, in the midst of the growth and development that witnessed their birth."***

• **History, Art and Aesthetics:** For a nation that has been colonized for nearly a thousand years it is only in the recent past that she is awakening to the concept of decoloniality. Therefore, a keen study of her history becomes very essential with a deep desire to know the truth. But, unfortunately for the past few decades, only a certain biased view of history has been propagated in the country. Hence, the history content in the school textbooks must be such that it must ignite interest in the students to know the truth about the past, based on the available evidence keeping aside one's personal biases and prejudices; and not just a dry listing of dates and events like the Regulating Act was introduced in 1773 and the Pitts India Act in 1784.

Talking about art and aesthetics, it is indeed a no brainer that *Bhāratīya* art excelled and in its heyday, attracted attention from all and sundry around the world. But moving forward, there is a dire need to both recognize and fill the paucity of original research and common knowledge about *Bhāratīya* culture spreading in the far eastern countries. Whereas there are tons of scholarship from various ideologies invested in studying how the Britishers colonized us, similar breadth is conspicuously lacking in studying the impact of *Bhāratīya* kings in the far eastern countries. Questions like how the culture got spread in such far lands?

Was it through sword or through congenial settlements? How the foreign policies of these far eastern countries function in the contemporary times with *Bhārata* and how much of the past informs, influences these policies? In order to address such questions, we need to prepare our students right from their early days to think in such directions.

• **Integrated Curriculum**: Although the 'Knowledge of India' is now introduced as a separate position paper, we envision a future where the good contributions of all civilizations will be studied and acknowledged and the not so good ideas coming out of different civilizations will be taken as warnings in the main body of the textbooks themselves; so that 'Knowledge of India' will be well integrated into the curriculum, with Indian knowledge being restored its rightful place.

By introducing various facets of 'Knowledge of India', by drawing from her rich past as well as present, taking inspiration from the diversity that thrives and prospers in this country is the way forward to create a well-informed populace who will go on to not just make their life proud but also our nation successful.

Another important feature while chalking the way forward is to involve people beyond the schools, namely the parents, the local community and the society in imparting knowledge to the students. For a very long time in India, till the arrival of the British, the school education was never centrally controlled. Schools used to be conducted in *Devālaya* premises or in the
courtyards (*tiṇṇai*) of influential people, and subjects such as arithmetic and language which had immediate practical value to everyone was taught to all. Dharampal has found out from British records itself that no discrimination based on caste was made, and also the number of schools in a small village in India easily outnumbered the total number of schools in all of the United Kingdom (Ref: Dharampal's The Beautiful Tree: Vol III Indigenous Indian Education in the Eighteenth Century, first published by Impex India in July 1971 Reprinted in July 1983 by Academy of Gandhian Studies, Hyderabad). Given this background, the *Devālaya* premises could serve as a great centre of education for multiple disciplines ranging from art, sculpture, architecture to cultural practices.

In the context of the current sorry state of the existing textbooks with respect to the Knowledge of India, the role of families becomes primordial in preserving and propagating the knowledge of India. If some small aspects of Indian culture are still surviving in spite of the school environment, the family needs to be given the credit it deserves. We must also be especially aware given that a few sections of the society are hell bent on destroying the institution of marriage, and thereby breakdown the family. With this background, an active discussion and debate must be encouraged on the correlation between the economy of a nation and its family and societal structure.

It is especially a grave tragedy that as a nation, we are not man enough to face the truth in the eye. One wonders if Gandhiji's ahimsa has been misunderstood as cowardice from seeking and speaking the truth. Therefore, events such as the genocide of the Malabar Hindus (referred to as the Moplah riots), the genocide of Maharashtrian brahmins, the genocide and

exodus of Kashmiri Hindus and many others have not made it to the textbooks as a part of the mainstream history or political science and has been relegated to be learnt from local communities. It must be reiterated in explicit terms that reminiscing these events as a fact of history should not be construed as provoking a section of our society to get on to any offensive or defensive mode. The purpose is neither to stoke communal passions nor to feed the rancour. The whole purpose is to learn from history through local communities because such events have never been a part of regular scholastic media.

5. Recommendations:

a. What can be done at the level of the system, schools, teachers, community, textbooks, etc? What are the changes required – in culture, in processes, etc?

Having studied the existing textbooks, the response from the DIETs and PUBs response to our questionnaire, we recommend the following for imparting 'Knowledge of India' topics to school students.

1. Under the modified scholastic structure enshrined in the NEP 2020 of 5+3+3+4, the topics of 'Knowledge of India' should be taught in a hybrid mode. For the 5+3+3 stages, the 'Knowledge of India' must be integrated profusely and holistically with the existing curriculum and framework and for the 4th stage, the 'Knowledge of India' must be introduced as a separate subject. Taking cue from the results of the KTPI rolled out by the CBSE, it is hereby
recommended that the 'Knowledge of India' should not merely be given as an elective, rather it should be made compulsory. Sufficient modules on 'Knowledge of India' should be created to cater to different academic disciplines so that the students taking non-science subjects like Economics will also get to study 'Knowledge of India' related topics of their chosen discipline.

During stage – 1 It is recommended to teach children the words in *Saṁskṛta* which will help them in deeper understanding of the concepts of 'Knowledge of India' in future. Some examples of areas from which the words can be picked up and taught are animals, birds, flowers, professions, verbs, family etc. This can be presented as books with attractive pictures and educational cards, charts or any other appealing visual media.

During Stage 2 & 3 – During these stages the concept of 'Knowledge of India' can be the part of existing textbooks. This will help the students in connecting the topics with the modern day subjects and also will help in generating interest towards studying the 'Knowledge of India' in more detail and in depth. Some recommendations are as follows:

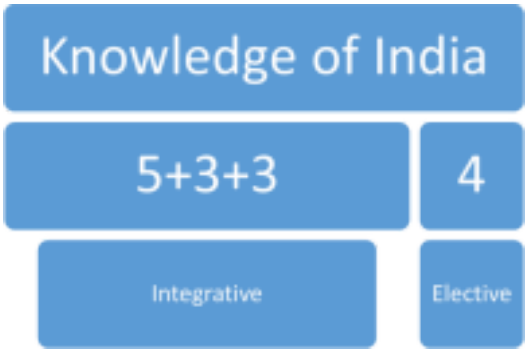
In Economics – The concepts related to economics from the texts like *Arthaśāstra, Mahābhārata (Śāntiparva), Rāmāyaṇa (Kaccit-sarga)* etc. can be included, Treasury, sources of revenue, accounts and audit in ancient *Bhārata*

In civics – Selected concepts from *Adhyakṣapracāra* and *Dharmasthiya* of *Arthaśāstra* can be added in this course.

In Biology – *Pañca mahābhūta*, *tridoṣa* theory, development of embryo, 6 *rasa* based classification of food, concept of disease etc.

In Geography – Ancient geography from *purāṇas* will add up to the knowledge of the subject.

This approach is summarized in the following figure:



2. It is well established that both optimal development of gross and fine motor skill positively impacts the cognitive abilities right from the infancy through the adolescent stage of a child. It is also equally well established that physical activity from early childhood helps in developing confidence, coordination and strength in a child (Ref: Montessori, M. (1967). The Absorbent Mind. 1949. Trans. Claude A. Claremont. New York: Del ta. And Piaget, J. (1950). Explanation in sociology. Sociological studies, 30-96.). Every community in the world has passed on these games to successive generations. India is no exception. There are a myriad of games from the Indian lore but unfortunately most of them have been relegated to obscurity. It is timely and pertinent to re-introduce these Indian traditional games in our schools. Many games like *cinni dāṇḍu or gilli dānḍu, buguri, goṭi, lagōri, āḍu-huli āṭa, aṣṭapada, paramapada, aḷu-guḷimane, sālu mane āṭa, kuntebille, nāku kallu āṭa* etc. are some of the traditional games from the state of Karnataka. All these games are apt for children in the first three stages *i.e.*, 5+3+3 and for senior children even games like *kabaḍḍi* may be introduced. All these games involve physical activities like hand-eye coordination, concentration, space manoeuvring ability, body flexibility, improved reflex activity, analytical thinking, body balancing, mental calculations and counting skills just to name a few of the advantages of these traditional games. We recommend that these be introduced in the scholastic framework so that the child will not only get to play what their ancestors played but also benefit from them immensely.

3. Many *Bhāratīya* names are not properly rendered into English or the Roman script. Examples: रवीन्द्रनाथ ठाकुर is rendered as Rabindranath Tagore which will be put as रबींद्रनाथ टागोर् in Kannada ರಬೀಂದ್ರನಾಥ ಟಾಗೋರ್. अडैयार् locality of Chennai becomes Adyar in English

rendered as अड्यार् in Kannada ಅಡ್ಯಾ ರ್. बालेश्वर of Orissa becomes Balasore in English rendered as बालासोर् in Kannada ಬಾಲಾಸೋರ್. Hence, we must sensitize our children not to rely on English when rendering one *Bhāratīya* language name to another. Another dimension to the problem of reading Indic terms in anglicized Roman script is the perpetuation of distorted and erroneous pronunciation of Indic terms. For example, the words ರಾಮ, ರಾಮಾ and ರಮಾ all be usually rendered in the Roman script as Rama only. This will lead to a lot of confusion. Another example is ಕೃಷ್ಣ which gets variedly written as Krishna or Krushna leading to erroneous pronunciation. So it is recommended that while writing the Indic terms in Roman script, an international transliteration scheme be used throughout the texts along with appropriate diacritic marks. For instance, ರಾಮ, ರಾಮಾ and ರಮಾ be rendered as Rāma, Rāmā and Ramā respectively and ಕೃಷ್ಣ be rendered as Kṛṣṇa. This way our children will grow up learning the correct way of pronunciation of either Kannada or *Saṃskṛta* words.

4. Besides the transliteration, it is recommended that at places where Indic terms have to be introduced, let them be introduced as such without them being translated in English. For instance, it is common to introduce the word 'Dharma' as 'Religion' in English. Similarly, for two different words ವ್ರತ and ಉಪವಾಸ, it is usually translated in English as 'Fast.' Such translations truncate the original sense of the word in the *Bhāratīya* language and ethos which has a severe influence on the cognitive development as well as world view of the student. So it is recommended that Indic words be introduced as they are in Roman script with appropriate diacritic marks as required. When the term appears repeatedly in a paragraph or a chapter, its approximate meaning in English should be introduced for the first time within parenthesis or in the footnote of that page.

5. It is recommended that frequent workshops, FDPs (Faculty Development Programs) and other educating modules be undertaken specifically to the teachers so that they are made aware of the 'Knowledge of India' a priori and get well equipped as well as oriented to impart the same to their students. These teachers must be adequately trained and sensitized to the needs of NEP2020.

6. It is recommended that a 'Knowledge of India' cell/department be created in every school with pictures and facts of 'Knowledge of India' displayed on the walls. This may not need any additional resources in terms of people. Existing teachers handling the subject can come together and form a cell which can plan year-long activities to engage students in creative ways to get abreast with topics in 'Knowledge of India'.

7. Allocation of time in the form of a defined learning period on the weekly time-table for 'Knowledge of India' as a subject would be important to do justice to the focus that NEP strives to bring upon this topic.

8. Every school library is recommended to have a separate section titled 'Knowledge of India' that showcases books and reading materials on this specific topic.

9. 'Knowledge of India' can be made enjoyable and participative by asking schools to organize an inter class or inter house quiz, debate or recitation competitions within the school,

at least twice a year on the topic is recommended. This could be considered in the months of August and January as the nation celebrates its Independence and Republic Day. These competitions could be scaled up to inter-school, district level and state levels.

10. Schools are recommended to have formal tie-ups with other educational and research organizations specializing in Indian Knowledge Systems. The list of such organizations can be found here https://iksindia.org/institutions.php. This tie-up will prove helpful in more than one way. For example, teachers can be trained, students can be exposed to interesting project work in collaboration with experts in these organizations etc.

11. History constitutes a major dimension of 'Knowledge of India'. History is not merely a collection of past facts. Historical facts feed to a narrative and this narrative helps in reconstructing a picture of our country's past. The perspective of this narrative is of paramount significance. The perspective in today's textbooks lands our students in a quandary with their impressionable mind getting an incoherent, abominable, and convoluted sense of their own heritage. Currently the textbooks:

– present narratives based on select facts while being erroneous at a number of places

– under-represents critical dimensions of our history such as intellectual achievements as evidenced by several *śāstras*, contribution to science, cultural evolution, economic prosperity, steadfastness in protecting the civilization, and socio-cultural organization; most importantly, the civilizational continuity of *Bhārata* is not given its due importance.

– As a result, our students are either alienated from our history, culture, tradition, and society or are introduced to a fictitious and fractured past. The current books have the potency to render our students rootless and simultaneously bestowing on them the ability to further propagate this rootlessness in the society. Alienation from one's own culture results in unfavourable socio-economic consequences (National Academies Press (US); 2013 Dec 19. A, Culture as a Social Determinant of Health; https://www.ncbi.nlm.nih.gov/books/NBK201298).

Hence it is strongly recommended that the history textbooks get overhauled in order to highlight the 'Knowledge of India'. The history textbooks should confidently assimilate modernity into the *Bhāratīya-dṛṣṭi*, develop a strong national identity without being apologetic and advance into the future while retaining the civilizational continuity. These books should give proportionate representation across region, time period, and events, highlighting the cultural dimensions of the history of *Bhārata*varṣa and finally educating our students about *Bhārata*'s political/cultural influence on the world (from Southeast Asia to Europe). South and East Indian dynasties have been highly under-represented. The history of great kingdoms like the Marāṭhas, Coḷas, and Vijayanagara as well as the early Kāśmīra dynasties, Kaliṅgas, Gaṅgas, Gajapatis, Kākatiyas, Ahoms, Ceras, Pallavas, Pāṇḍyas, Pālas, Senas, and Pratihāras either get a passing mention or not even that. The crucial role they played in our history must be elaborated. There are several time periods that have been under-represented. The history of the first millennium CE is under-represented compared to the second in spite of the fact that the accomplishments during the former period continue to influence us to this day.

Although the Gupta Empire is represented, its importance in shaping the *Bhāratīya* civilization (intellectual achievements in fields such as mathematics, classical literature, language, medicine, science, astronomy, administration, politics, and social organization; social stability that gave rise to harmony, peace, and prosperity for a period of at least three centuries) has not been sufficiently highlighted.

The period between 500 CE and 1000 CE, an era of great transition and turmoil, is largely neglected. This period saw the emergence of multiple *vaṃśas* in the North and South in conflict and friendship with each other. They made significant contributions to all aspects of our civilization. Great philosophers, thinkers, and artists emerged in various fields, carrying forward the achievements of the previous five centuries. A new wave of invasions from the Northwest began and *Bhāratīya* kingdoms held the fort through collaboration and competition. Also, as a direct result of these invasions, Buddhism started declining.

The emergence of the great Marāṭhas has not been emphasized in the present curriculum. The period between 1700 and 1800 CE saw a significant domination of the Marāṭhas across the land and a resurgence of the civilization – in the form of large-scale construction, adoption of Western technology, advancement in warfare, and restoration of the status of women (*Rāṇī Ahilyabai Holkar* being a representative personality).

Through the nineteenth century the British uprooted many traditional institutions and communities which were the strong bedrock sustaining the culture, generating sources of livelihood besides being philanthropic. For instance, the traditional *anna chatras* in places like Thanjavur which were earlier supporting the pilgrims and the passer-by were closed by the Britishers who saw it as a mere waste of public wealth. This resulted in great hardship for Indians. The skewed narratives of this period obfuscate the real destruction caused by British rule. The thriving native educational institutions and industries were destroyed. Communities were uprooted denying them their professions and instruments of professions, using force. The resulting migration resulted in large scale poverty and loss of traditions. The Census resulted in British policies that completely changed the social organization of *Bhārata*. The distortions that came out of British malevolence are now blamed on the age-old civilization. Entire communities were maligned as 'thugs' and forced to live in depravity in forests and mountains. Sacred texts of *Bhārata* were interpreted through alien lenses and distorted. *Devālayas* that were the centre of the local economy were targeted. *Bhārata*'s share of World GDP plummeted from 25% to 3% in this period (Ref: Maddison, A. (2006), The World Economy: Volume 1: A Millennial Perspective and Volume 2: Historical Statistics, Development Centre Studies, OECD Publishing, Paris, https://doi.org/10.1787/9789264022621-en).

The historical process must be deconstructed – we must present the various historical sources with their strengths and limitations so that our children can understand historiography and the probabilistic truth value thereof. A glimpse into how ancient *Bhārata* learnt history – emphasizing on values and facts rather than dry facts alone – provides perspective to the students. If we pose History as a collection of unresolved problems, we can inspire a problem

solving approach in students when they study the subject. The last thing we want is for them to become passive and mindless consumers of information.

Hence it is recommended that History be divided into time periods of appropriate years and represent important people and events in the regions of North, South, East and West. Represent our strengths so that students can appreciate how we, as Indians, dealt with difficult situations at critical moments. It is expected that with all these changes the very spirit of *Bhāratīya* Civilization that the Radhakrishnan Committee wanted every student to imbibe will be realized. Finally, with these recommendations, it is earnestly hoped that the words of Claude Alvaris come to life with all spirits (Ref: Foreword in the book The Beautiful Tree by Dharampal):

> ***"All histories are elaborate efforts at myth-making. Therefore, when we submit to histories about us written by others, we submit to their myths about us as well. Myth-making, like naming, is a token of having power. Submitting to others' myths about us is a sign that we are without power….If we must continue to live by myths, however, it is far better we choose to live by those of our own making rather than by those invented by others for their own purposes, whether English or Japanese. That much at least we owe ourselves as an independent society and nation."***

12. In Mathematics, there are several topics from the 'Knowledge of India' domain which are either under-represented or do not find any mention at all. Almost all of the mathematics that is taught till 10^{th} standard was discussed in *Bhārata* for the first time, which was propagated to Europe through Arabia and found expression in a certain form (Ref: Roddam Narasimha, "Epistemology and Language in Indian Astronomy and Mathematics" J Indian Philos (2007) 35:521–541). Some of the topics that are missing from the textbooks are:

◦Representation of numbers in *Bhāratīya* mathematical texts (Bhūtasaṅkhyā, Kaṭapayādi and Āryabhaṭa's systems)

◦Presentation of some of the results of *Bhāskara* (Eg: area of a circle), *Brahmagupta* (rules for negative numbers), *Āryabhaṭa*'s sine table

◦Discussion of the problems presented in *Bhāratīya* geometry and the approach/es taken to solve them

◦The way the solar system is discussed in the present textbooks shows *Bhāratīya* astronomy in poor light, although *Bhāratīya* astronomy was the most advanced of its time.

◦There seems to be a disconnect between the current popular approach and the traditional *Bhāratīya* approach, which somehow needs to be bridged, and that might not be very easy to do. For example, in the current curricula, a point by definition is dimensionless, a line is a collection of points having a single dimension and a plane is a collection of lines thereby having two dimensions. On the other hand, the *Bhāratīya* approach would be to start with a plane and then say that the intersection of two planes is a line and the intersection of two lines

is a point; which is in perfect alignment of our day-to-day lives.

Hence it is recommended that the KTPI books prepared by the CBSE (Ref: https://cbseacademic.nic.in/publication_sqps.html) may be used as resource material and elective courses on *Bhāratīya* Mathematics created for classes XI and XII (existing framework prior to NEP 2020). Furthermore, various topics from these KTPI can be trickled down to the lower classes. For example: In the chapter on Astronomy in KTPI, there are mentions of adhikamāsa and the eclipse-period of 18 years. This understanding can be slowly introduced in the following stages:

First stage (5): As observed from any point on the Earth, mention that the Sun takes about 365.24 days to complete one apparent revolution round the Earth, while the Moon takes about 27.3 days to complete one apparent revolution round the Earth. Then introduce the concept of 27 *nakṣatrās* to keep track of the position of the Moon. This has also been encoded as a story in the *Taittirīya Saṁhitā* where the Moon is said to have 27 wives and that he spends each night with one wife.

Second stage (3): Aid understanding that the average period between two new Moons or two full Moons is about 29.5 days. Introduction of the terms *amāvāsyā* or *darśa* and *pūrṇimā*, *śukla* and *kṛṣṇa pakṣas*.

Third stage (3): Introduction of the concept of eclipses, that they are caused when Sun, Moon and Earth become collinear; and that they occur only on New Moon or Full Moon days. Introduction to the concept of *tithi*.

Fourth stage (4): 12 lunar months amount to 354 days while solar year is about 365 days. Aligned every five years by inserting 2 *adhikamāsas*. The eclipses repeat every 18 years, today known as the Saros cycle. Our ancestors had associated the number 3339 with this period (approximate number of *tithis* in *kṛṣṇapakṣa* during a period of 18 years).

It is also recommended that some of the examples given in the textbooks on *Bhāratīya* geometry can be done outside the classroom, probably in the playground. Sections on Greek mathematics need to be trimmed down, especially the depictions of the faces of "Greek mathematicians" such as Pythagoras, Heron etc.

Līlāvatī by *Bhāskara II* who belonged to the 12th century and believed to have been born in the Bajjargi village in Northern Karnataka contains mathematical topics that are worth introducing at every stage of our schools. It has a multidisciplinary and interdisciplinary approach. For instances, from the verse 73 of this book, which enumerates the 'Rule of Three' the ideal gas laws that are considered to be the topics of Physical Chemistry and taught in class XI or XII can be easily deduced (Ref: Bhaskaracharya's Lilavati Translated and Edited by A. B. Padmanabha Rao, Chinmaya International Foundation Shodha Sansthan, Ernakulam Kerala, 2015). Another famous mathematician who also hails from Karnataka is the 9th century Mahavira (Ref: https://karnatakaeducation.org.in/KOER/en/index.php/Mathematics:_History). His

contributions and works are also recommended to be used at various stages in the school textbooks.

It must be noted that merely having these mathematicians' names in a fact-box along with a line or two about their work is not sufficient. *Bhāratīya* students should be able to get a comprehensive view of the mathematical work and thinking that was present in our country.

With copious literature now available narrating the origins of the ideas of calculus in *Bhārata*, it is high time the textbooks inform our students about these developments. The latest work by Prof. Mandyam D. Srinivas contains vital information on the Kerala school of mathematics and how the colonial officers downplayed it (Ref: https://bhavana.org.in/emergence-of-a-new-era-in-the-history-of-Indian-mathematics/).

Dealing on various topics of *Bhāratīya* mathematics is also an exercise to advocate interdisciplinary education for the art of poetry involving metres which gave rise to the concept of binary number systems and combinatorics in *Bhārata*. Similarly, in an unexpected compendium of *Bṛhatsaṁhitā*, there is an exercise of permutation and combination in the chapter of *Gandhayukti* where *Varāhamihira* gives the formula to compute ${}^{n}C_{r}$. The tradition which got passed on for several centuries by which the precise knowledge of reading the night sky was a child's play at least a few decades back has seemingly disappeared in thin air. This tradition required children to know the names of the 12 *rāśis*, 27 *nakṣatra* and the numbering system called *Kaṭapayādi*.

The knowledge of *Bhāratīya* calendars (solar, lunar and lunisolar; *Sauramāna, Cāndramāna*) currently are relegated to only government official documents. Efforts must be made to transmit the knowledge of *Bhāratīya* calendars to our children through school textbooks as well. Example of some of the recommendations for the textbook at the first three stages are:

5	• Mention of important *Bhāratīya* mathematicians / scientists /astronomers • Introduction to *bhūtasaṅkhyā* and *kaṭapayādi* systems • *pāṭī-gaṇitam* (arithmetic)
3	• Mention of *Āryabhaṭa*'s numbering system • Mention of simple formulae like area of circle, ∑n etc in *Saṁskṛta* / *Bhāratīya* languages • Simple geometrical constructions using *śulba* (*rajju*/thread). Ex: circle, square. Measurement of circumference of a circle • Calculation of square root • Certain *sūtra*-s of Vedic mathematics for fast mental calculation

3	• Sine tables of *Āryabhaṭa, Bhāskara* upto *Nityānanda* • Squaring the circle using only *rajju* • Paper folding exercises to prove so-called Pythagoras theorem and other identities related to triangles • Contrast in the approaches to mathematics in ancient *Bhārata* and that currently practiced, having its origin in Europe.

These recommendations, if implemented would go a long way in not only making our children familiar with the exemplar astronomical knowledge but also improve their own cognitive skills.

13. In subjects like science, particularly chemistry and physics, the current textbooks do not mention anything about ancient and medieval *Bhārata*'s contributions to this field. There needs to be a serious shift of focus and gaze from the Eurocentric history of science. The textbooks should help our students acquaint, assimilate and appreciate the irrefutable fact that the deep sense of inquiry and analysis is ingrained in our civilization right from the Rig Vedic period which is universally accepted as the world's oldest and oldest living literature produced by humans on this planet (Ref: Vedic and Indo-European Studies by Nicholas Kazanas; Aditya Prakashan (New Delhi), 2015 ISBN 9788177421378).

The esoteric discussion on the origin of this universe, creation is the crux of the *Nāsadīya Sūkta* (*Ṛgveda* 10.129) whose salient points are equally relevant and accurate even in our contemporary times. The existence in nature of a self-supporting principle was inferred (*Ṛgveda*.10.129.5). Among various other things, the possible genesis of conch-shell and pearl were discussed in the *Atharvaveda* (4.10. 1-7). In the *Śatapatha Brāhmaṇa* a theory of material evolution (6.1.3 1-5) is offered. Even the idea of building blocks of matter like atoms and molecules (not exactly related to the modern sense of atoms and molecules though) are found in *Kaṭha Upaniṣad* (1.2.20). And according to Debiprasad Chattopadhyay, one of the historian of science of our country who worked on the Lokāyata contributions, notwithstanding his ideological biases, *Uddālaka Āruṇī* of the *Chāndogya Upaniṣad* fame, a historical figure, who traveled from *Takṣaśilā* to North Bihar, was a materialist or hylozoist, who propounded that everything in the universe including man evolved out of three elements, and even mind being a product of matter. He preceded Thales of Greece by nearly two centuries, and has therefore been claimed by Chattopadhyaya to be the 'first scientist in the world.' (Ref: A. K. Biswas; Indian Journal of History of Science, 45.2 (2010) 241-285 and Debiprasad Chattopadhyay; History of Science and Technology in Ancient India-The Beginning, Firma KLM Private Ltd., Kolkata, 1986).

All these go to highlight the scientific temper and the spirit of inquiry of our ancestors which are the bedrock of science. Science has its roots in and is as old as our *Bhāratīya* culture. Armed adequately with the accurate epistemological tools like the *pratyakṣa, anumāna, śabda* etc. it is not at all an exaggeration to say our ancestors were one of the early ones who had conceptualized science. The textbooks should be able to communicate to our students such details of our lofty past.

Our ancestors did not just confine themselves to merely conjecturing. There are several elements in the history of science that ancient and medieval Indians have contributed immensely and some of which are yet to get their long awaited due recognition. Right from the drill ploughs (Ref: Dharampal's The Beautiful Tree Volume 1; First published by Impex India in July 1971 Reprinted in July 1983 by Academy of Gandhian Studies, Hyderabad) in vogue since the Vedic era till the invention of the semiconductor junction by Acharya Jagadish Chandra Bose, there are many examples of *Bhāratīya* breakthroughs which have not got their due recognition. It is high time we have a Needham for India (Note: Prof. Joseph Needham is a historian who has extensively studied the Chinese contribution to science and technology from ancient times, resulting in 27 volumes brought out in the years 1956 to 1966)

One may argue that such topics are for the subject of history and not for science. But it is well established that introducing the history of science is an effective way to arouse curiosity in the students (Ref: Koliopoulos et al, "The Use of History of Science Texts in Teaching Science: Two Cases of an Innovative, Constructivist Approach" The Science Education Review, 6(2), 2007). So dwelling into the scientific contributions of our ancestors falls well within the ambit of science education and this is very much part of the 'Knowledge of India'.

Furthermore, elementary scientific topics like our ancestors having made long standing observation of the visible sky, about the geography of our planet, the way plants produce food, the way blood circulates in the body, science of medicine and managing disease, abstract mathematics and computations, medical surgery, rainwater harvesting, water cycle which find copious mention in ancient *Bhāratīya* texts and that too at that instance in the history of mankind when there was no commensurate or comparable achievement in the rest of the world, are not introduced to our children in the textbook at all. Paradoxically, despite Karnataka being the exotic seat of the coveted *Koḍachādri* Pillars, its anti-rust properties do not find elaborate mention in the science textbooks, notwithstanding the iron pillar at Delhi, Dhar and Konark.

Here again the KTPI books be used as reference material and as recommended in point 11 for mathematics, it is once again recommended that elective courses to cover ancient and medieval *Bhārata*'s contribution to chemistry and physics be created. It is also recommended that various topics from KTPI may be introduced in lower classes wherever possible. Currently none of the textbooks even mention the chemistry texts written by our ancestors and these need to be introduced at the appropriate stage and depth.

Well established facts like the author of the *Rasārṇava* knew how to arrange metals in the order of their reactivity, something that we learn today as the electrochemical series, needs to be told to our students. *Bhārata* is perhaps the first country in the world to have described in detail the flame test for different metals but paradoxically our students are completely oblivious to such historical accomplishments. Various laboratory apparatus used in *Rasārṇava* and *Rasaratnasamuccaya* introduced in contemporary textbooks will go a long way in

informing our students about both science and heritage at one go.

Science textbooks should be oriented towards not only informing our students of ancient and medieval achievements but also inspiring them to read more of these texts in their original versions. This will not only create a sense of appreciation for our heritage but will also sensitize students to different subjects like manuscriptology, preservations etc. which may help them to charter alternate professional paths in their individual life. It is worth reiterating that merely highlighting the accomplishments in a fact box with one or two colourful images would not suffice. More details need to be thoroughly explained and our students should be given a holistic view. There are ample resources which are rich in detail (as a start, the two edited volumes on History of Indian Science and Technology brought out by the Indian National Science Academy, New Delhi, under the editorship of one of the celebrated savants of Karnataka Dr. B. V. Subbarayappa) and it is highly recommended that the textbooks take cognizance of such resources.

14. For the subject of Yoga, it is commendable to see adequate coverage with requisite illustrations in the KTBS books from class 6 to 10 under the subject head of Physical Education. It is recommended that from the holistic perspective of Yoga which comprises 8 dimensions, *āsana* and *prāṇāyāma* are given prominence which is also the popular practice in the society today. However, for our children to know the complete aspects of Yoga, it is recommended that the other 6 dimensions be covered appropriately. For instance, the *yama* and *niyama* are recommended to be introduced at the 5+3 stage through various stories either in their language books or in the EVS books. Among the remaining 4, even *dhāraṇa* and *dhyāna* could be introduced to our children as it will help them immensely. The concept of *pratyāhāra* and *samādhi* may also be introduced in higher classes and thereby completing the introduction of yoga to children through school textbooks.

15. '*Bhāratīya* health systems' is a topic which is dealt with very rarely in the texts of school education. Philosophy of *Āyurveda* and some of its salient features is recommended as a part of the ''Knowledge of India'' subject for the Stage 4 of NEP. Some of the topics to be included in this subject are: Perspectives from *Āyurveda*, Daily and Seasonal regimens, Suppression of natural urges, Prenatal and Postnatal care, Introduction to Indigenous Health systems: *Āyurveda*, *Siddha*, *Unāni* etc., Health benefits of Exercise: Perspective from Yoga and *Āyurveda*, Holistic lifestyle changes for wellness, Eating and Drinking habits for good health: Concepts from *Āyurveda*, Types of water and its effect on health, Concept of sleep, *Prajñāparādha* in detail.

16. While speaking about 'Knowledge of India' it will be unfair to miss out on a few areas, particularly "Public administration and Governance" which is seminal and ought to be taught to our students at their school level. Having already detailed the extent to which features of this topic can be introduced in the 5+3+3 stage, it is recommended that at the 4th stage in the separate subject on 'Knowledge of India', the following topics be covered for Public Administration and Governance: Foreign Policy in ancient in ancient *Bhārata*, *Saptāṅga* Theory: Seven elements of state, Training of a leader/king, Civil service regulations, The idea of good governance from *Śānti Parva* of *Mahābhārata*, Lessons of corporate governance from *Kauṭilya's Arthaśāstra*, Defense and war, Management concepts from Indian Knowledge, Administration and Social life under Vijayanagara.

17. Imparting life skills is one of the most important objectives of school education. The traditional practices and *parampara̅* of every locale is unique and of paramount importance in shaping the thought process as well as character of an individual belonging to that area. Even though the textbooks cover several aspects of life skills, it is recommended that attention be paid to the individual practices which will vary from one village to another. This can best be incorporated in the scholastic framework through project works and assignments. Furthermore, when it comes to specific life skills like interpersonal relationships, leadership, empathy, coping with stress and emotion etc., are recommended to be introduced through case studies from classical *Bhāratīya* lore which could be a part of the separate subject of 'Knowledge of India' in the 4th stage according to NEP 2020.

18. Regarding the language subjects, taking cognizance of NEP 2020 it is hereby recommended that education at the first two stages (5+3) happens in the mother tongue of the child. Furthermore, in the third stage, the hitherto ignored aspect concerning the science of language (*udgama* and *prayoga*) is recommended to be introduced from the perspective of *Bhāratīya* linguistics. It is also recommended that as much as possible, the rich literary works from each century from all *Bhāratīya* languages be introduced to the student. This is particularly important for the cognitive development of the students. It is also recommended that at the 3rd and 4th stage, as supplementary readers, those works of literature be introduced which were awarded the highest recognition from the state which espouse *Bhāratīya* traditional ethos in the most sublime and lucid manner.

Bhārata is a land of high lingual diversity where the richness of language shows different flavours even at the district levels. Karnataka is one such example where lofty literature has been created in languages like Kodagu, Tulu and other languages of the people. It is recommended that the textbooks introduce these works of literature to the students in an appropriate manner. *Bhāratīya* classical literature is replete with stupendous examples for different forms of communication, for example *Hanumān-Sītā samvāda, Vālī-Sugriva samvāda, Hanumān-Rāvaṇa samvāda, Kṛṣṇa-Dhṛtarāṣṭra samvāda* etc. which go a long way to impart highest calibre of communication skills. It is highly recommended that such *samvādas* become parts of the textbook in suitable chapters.

19. Many of the *Smṛti* literature of this civilizational nation have been relegated to obscurity or being proscribed due to incomplete and poor understanding of their ethos and content. For instance, even though *Manusmṛti* contains lofty ideals of public and societal good, it has become controversial to the extent that its very name solicits unwarranted bemoan from a section of our society. It will be a matter of surprise to learn that injunctions to the effect of prohibiting the spilling of pollutants, leftovers, blood or poison in water; spitting in water; urinating on the streets or in the barns; defecating/urinating in fields, canals, mountains, fire places, dilapidated *Devālayas*; littering river banks is mentioned in *Manusmṛti*.

20. It is recommended that *Bhāratīya* approaches in safeguarding and respecting mother nature enshrined and encapsulated in various rituals and other traditional practices both at the individual and community level must find their description in the textbook which will help the

students to understand the importance of our traditional cultural practices towards trees, rivers, mountains etc. and thereby not inculcate the sense of exploiting them or polluting these natural resources. The age old germane practise of the state of Karnataka namely *Devarakāḍu* stands testimony to the reverential nature of our people towards environment. Similar examples from various parts of *Bhārata* must also be highlighted in the textbook like the *Bisnois* of Rajasthan and the Chipko movement arising out of it.

21. Pedagogical aspects to complement and supplement the teaching 'Knowledge of India' related topics, like site visits, surveying people, cataloging/profiling type of project works etc. is recommended. While surveying people, the recent years' Padma awardees merit a separate study by the school children through assignments and project work so that they will know how people of humble origins have maintained their individual tradition.
In summary, the 'Knowledge of India' for various subjects can be introduced for the first 3 stages, namely the 5+3+3 stages using the following pedagogy:

	Mathematics	Science*	Language & Linguistics	Social Studies & Life Skills
5	Experienti al, Exposure	Experiential, Exposure	Exposure, Anecdotal	Exposure, Anecdotal
3	Anecdotal, Comparative	Comparative Anecdotal, Experimental	Experiential, Assimilative	Experienti al, Assimilati ve
3	Reasoning, Analytical Explorative	Analytical, Experimental Explorative	Comparativ e, Analytical	Reasoning, Case Study

Note: * includes Physics, Chemistry, Biology including *Bhāratīya* Health System

Exposure: Educational cards, charts, stories from *Pañcathantra, Jānapada Kathegalu, Nāḍa Hāḍugalu, Jānapada Gītegalu*; learning *Saṁskṛta* akṣaras, names of animals, birds in both mother tongue, English and *Saṁskṛta*.

Experiential: Looking around, going out and surveying the plants, people, landscape around the student's locality, school, etc. Getting to know about the tribal knowledge around them.
Anecdotal: essential life skills lessons from *Bhāratīya* stories like *Pañcathantra, Rāmāyaṇa, Mahābhārata* etc. in a narrative manner. stories from *Bhārata*'s classics like *itihāsa* and *purāṇa*, stories about *Bhāratīya* scientific discoveries, interesting anecdotes from *Bhārata* lore.
Experimental: Physically doing, hands-on, thought experiments etc.

Explorative: Connecting practice and theory, exposure to larger portions of texts from original scientific and mathematical literature in *Saṁskṛta*/Kannada etc.
Comparative: Assessing the *Bhāratiya* methods and the contemporary methods for various mathematical and scientific processes
Assimilative: Biography of eminent *Bhāratīya* personalities, Kannada *Lāvaṇigaḷu, Bayalāṭa, Kannada Jānapada Vacanagaḷu*
Analytical: Reasoning, assessment and practical involvement; Assessment and comparison of *Bhāratīya* literature from wide domains
Case Study: Specific practices germane to our country/state and understanding it holistically from eco-friendly point of view
Reasoning: Ability to reflect, counter viewpoints, counter examples etc.

21. Many times infrastructure is in place but they are under-utilized or unutilized due to lack of awareness. The primary objective of education should be man-making. When this focus is clear, infrastructure and equipment will come in the natural course of time. Whereas on the other hand, if the focus is only on infrastructure and equipment, investing on them will not add
any value to the students. Keeping this caveat in mind, with a focus to really empower the children to become responsible citizens of a grander India in future, some of the following suggestions may be implemented:

- fostering a culture of calmly debating about so-called controversial and 'polarizing' issues without allowing flaring up of one's emotions, along with sensitivity to another person's opinions.
- encouraging an attitude of questioning and not merely accepting whatever the textbooks (or print/electronic/social media) say as infallible truth, with a clear foundation of how knowledge generation takes place and how fake news such as Pythagoras theorem, apple falling on Newton's head etc. are created and propagated.
- Developing confidence in children that language is not a barrier to learning, especially when even the so-called English-medium schools switch over to the regional language for explanations and discussions, while reading and writing happens in English. It must be ensured that such an approach does not leave the children crippled in the sense that they can neither express themselves properly in English nor in the regional languages. English-medium students and regional language medium students must be made to interact with one another through various competitions and games so that they can exchange notes with one another. Also, these children could be made to interact with the students studying at *gurukulas* with a view to bridge the gap between the traditional and the modern, to make tomorrow's children fly high using both the wings of tradition and modernity.
- We envision a future where the school teachers are actively involved in research and are empowered to make upgradations from within the system besides interacting with experts from outside.

22. Ancient Indian education system has always focused on pedagogy which include

storytelling, question and answer methods, debating etc. Those methods can be brought back to make the teaching interesting and knowledge centric. Teaching should not be teacher centric or student centric it must be knowledge centric as it is said in *Śikṣāvalli* of *Taittirīyopaniṣad* – आचार्यः पूर्वरूपम्। अन्तेवास्युत्तररूपम्। विद्या सन्धिः। प्रवचनगं् सन्धानम्। (The Master is the first form; the disciple is the latter form; Knowledge is the linking; Instruction is the medium).

23. With many of Indian architectural marvels being desecrated and pillaged, virtual reality is an exciting technique through which some of the destroyed structures could be recreated and shown, based on the other surviving structures. For example, while the *vimāna* at Konark is destroyed, since it is of the *nāgara* style, a digitally reconstructed structure could be shown to students using the surviving *Devālayas* of Puri Jagannath and *Lingarāj Devālayas* (Bhubhaneshwar).

Other ways of employing technology include:

- use of toys recreating, for example, the structures of Jantar Mantar and understanding astronomy and architecture through them
- showcasing documentaries of ground breaking research
- showcasing videos which illustrate certain concepts that have been identified in Indian tradition, but those which are now clearer due to the advancement of knowledge

As a concluding remark, we must enable our students to be strong enough to seek the truth alone (*satyapara*) and once having ascertained the truth, to adhere to it and to drop off at once all misconceptions including the dearly held ill-conceived notions (*satyaniṣṭha*).

Finally, it is worth reminiscing about the conversation between Sir C. V. Raman and Sir Ernest Rutherford narrated by C. V. Raman himself while delivering the convocation address at Banaras Hindu University in the year 1926. After going around the campus of Cambridge University, C. V. Raman found students with gay abandon engaging in all kinds of activities and having got intrigued by what he saw, he said to Rutherford,

"It seems to me Cambridge is a place for play and not for study."

Prompt came the reply from Rutherford,

"We do not try to grow bookworms here. We train men who can govern an empire."

This committee is of the firm conviction that with appropriate and adequate inclusion of 'Knowledge of India' topics in the school curriculum, our children too will grow to scale loftier heights albeit a significant difference. Having got to study the ethos of this civilizational nation, the children will not aspire to prosper at others' cost rather would strive to uphold the civilizational values while bringing glory to *Bhārata*. With such an able populace, *Bhārata* may once again become the beacon of knowledge and lead the world.

सत्यं प्रपद्ये! ऋतं प्रपद्ये! अमृतं प्रपद्ये!

Satyam prapadye! Ṛtam prapadye! Amṛtam prapadye!

I take refuge in truth! I take refuge in the cosmic order! I take refuge in immortality!

(*Taittarīya Brāhmaṇa* 3.5.1.1)